DECEMBER 2020

2020

AUSTRALIA
BRAZIL
CANADA
CHINA
DENMARK
ENGLAND
FRANCE
GERMANY
INDIA
ISRAEL
ITALY
JAPAN
NETHERLANDS
NEW ZEALAND
NORWAY
SINGAPORE
SWEDEN
SWITZERLAND
TAIWAN
UNITED STATES

International Profiles of Health Care Systems

EDITED BY

Roosa Tikkanen and Robin Osborn
The Commonwealth Fund

Elias Mossialos, Ana Djordjevic, and George Wharton
London School of Economics and Political Science

Contents

The Australian Health Care System

Lucinda Glover, with contributions from Michael Woods
London School of Economics

Australia has a regionally administered, universal public health insurance program (Medicare) that is financed through general tax revenue and a government levy. Enrollment is automatic for citizens, who receive free public hospital care and substantial coverage for physician services, pharmaceuticals, and certain other services. New Zealand citizens, permanent residents, and people from countries with reciprocal benefits are eligible to enroll in Medicare. Approximately half of Australians buy private supplementary insurance to pay for private hospital care, dental services, and other services. The federal government pays a rebate toward this premium and also charges a tax penalty on higher-income households that do not purchase private insurance.

How does universal health coverage work?

It took 10 years of political tension to establish Australia's universal public health insurance program, known as Medicare.

A universal health care bill was initially introduced in Parliament in 1973 but failed three times to pass through the Senate. Because of these failed attempts, a new parliamentary election was called, a procedure known as double dissolution, to resolve the deadlock. The new Parliament passed the health care legislation in 1974, establishing free public hospital care and subsidized private care. However, following a change in government in 1975, access to free health care services was limited to retired persons who met stringent means tests.

After another change of government in 1984, the current Medicare system was established. Medicare provides free public hospital care and substantial coverage for physician services and pharmaceuticals for Australian citizens, residents with permanent visas, and New Zealand citizens following their enrollment in the program and confirmation of identity.[1] Restricted access is provided to citizens of certain other countries through formal agreements.[2] Other visitors to Australia, as well as undocumented immigrants, do not have access to Medicare and are treated as private-pay patients, including those needing emergency services.

Role of government: Three levels of government are collectively responsible for providing universal health care:

The *federal government* provides funding and indirect support for inpatient and outpatient care through the Medicare Benefits Scheme (MBS) and for outpatient prescription medicine through the Pharmaceutical Benefits Scheme (PBS). The federal government is also responsible for regulating private health insurance, pharmaceuticals, and therapeutic goods; however, it has a limited role in direct service delivery.

States own and manage service delivery for public hospitals, ambulances, public dental care, community health (primary and preventive care), and mental health care. They contribute their own funding in addition to that provided by federal government. States are also responsible for regulating private hospitals, the location of pharmacies, and the health care workforce.

Local governments play a role in the delivery of community health and preventive health programs, such as immunizations and the regulation of food standards.[3]

At the federal level, intergovernmental collaboration and decision-making occur through the Council of Australian Governments (COAG), with representation from the prime minister and the first ministers of each state. The COAG focuses on the highest-priority issues, such as major funding discussions and the interchange of roles and responsibilities among governments. The COAG Health Council is responsible for more detailed policy issues and is supported by the Australian Health Minister's Advisory Council.

The federal Department of Health oversees national policies and programs, including the MBS and PBS. Payments through these schemes are administered by the Department of Human Services.

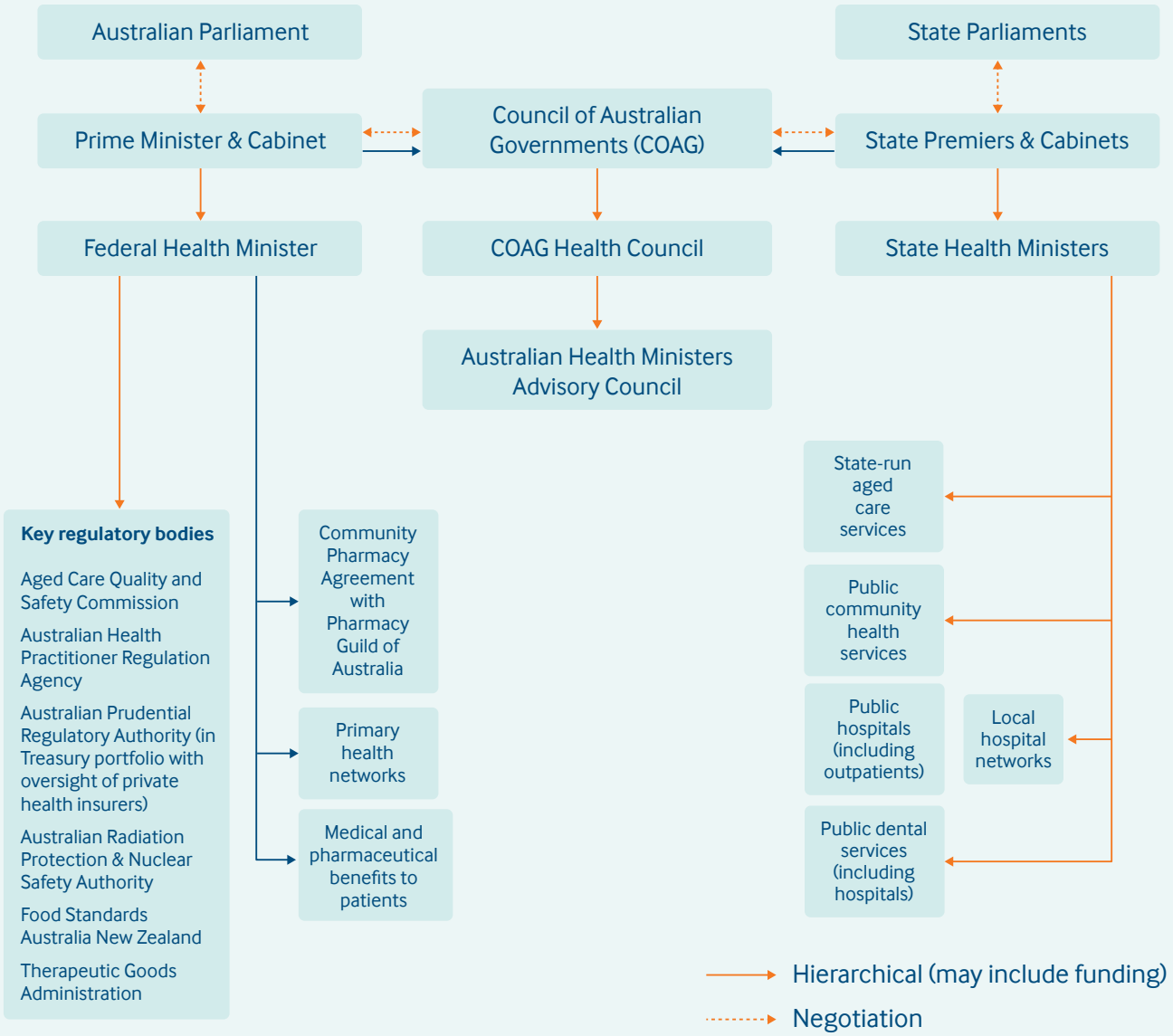
Other federal agencies involved in health care include the following:

- The Pharmaceutical Benefits Advisory Committee provides advice to the Minister for Health on the cost-effectiveness of new pharmaceuticals (but not routinely on delisting).

- The Australian Digital Health Agency is responsible for matters relating to electronic health data, and the Australian Institute of Health and Welfare and the Australian Bureau of Statistics (ABS) also provide health data.
- The Therapeutic Goods Administration oversees supply, imports, exports, manufacturing, medical devices, pharmaceutical safety, and advertisement.
- The Australian Health Practitioner Regulation Agency ensures registration and accreditation of the workforce in partnership with national boards.
- The Australian Prudential Regulation Authority regulates private health insurance, and the Australian Competition and Consumer Commission promotes competition among private health insurers.

The state governments operate their own departments of health and have delegated the management of hospitals to Local Hospital Networks. These hospital networks are responsible for working collaboratively with federally funded Primary Health Networks, which were established in 2015 to improve the efficiency, effectiveness, and coordination of care. Primary Health Networks have boards comprising medical professionals and community advisory committees.

ORGANIZATION OF THE HEALTH SYSTEM IN AUSTRALIA



Source: L. Glover, 2020.

Role of public health insurance: Total health expenditures in 2015–2016 represented 10.3 percent of the GDP, an increase of 3.6 percent from 2014–2015. Two-thirds of these expenditures (67%) were funded by the government.[4]

Medicare is funded through the national tax system, in part by a government levy, which raised an estimated AUD 114.6 billion (USD 80.14 billion)[5] in 2015–2016.[6] Since 2014, a share of the money raised from this levy also supports the National Disability Insurance Scheme.

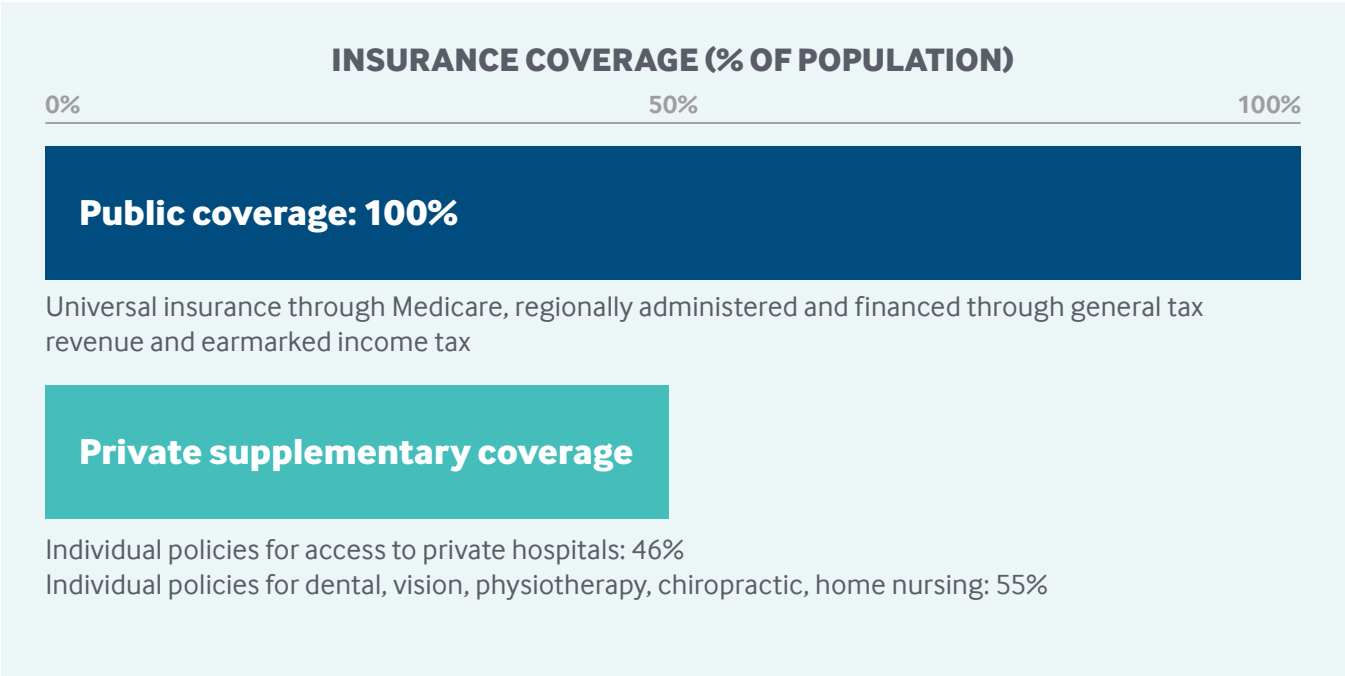
Role of private health insurance: Private health insurance is readily available and offers coverage for out-of-pocket fees and private providers, greater choice of providers (particularly in hospitals), faster access to nonemergency services, and rebates for selected services. Private health insurance may include coverage for hospital care, general treatment, or ambulance services. General treatment coverage provides insurance for dental, physiotherapy, chiropractic, podiatry, home nursing, and optometry services. Coverage may be capped by dollar amount or by number of services. For hospital services, patients can opt to be treated as a public patient (with full fee coverage) or as a private patient (with 75% fee coverage).

Government policies encourage enrollment in private health insurance through a tax rebate (8.5%–33.9%, depending on age and income) and an income-based penalty payment (1%–1.5%) for not having private insurance. This penalty, known as the Medicare Levy surcharge, applies only to singles with incomes above $90,000 and families with incomes above $180,000.[7]

The Lifetime Health Coverage program provides a lower health insurance premium for life. However, there is a 2 percent increase in the base premium for each year after age 30. Consequently, sign-up is highest among those 30 and under, with a trend to opt out starting at age 50.

Nearly half of the Australian population (46%) had private hospital coverage and nearly 55 percent had private general treatment coverage in 2016.[8] However, coverage varies by socioeconomic status: Private health insurance covers just one in five (22%) of the most disadvantaged 20 percent of the population, but more than 57 percent of the most advantaged population quintile. This disparity is due, in part, to the Medicare Levy surcharge applied to higher-income earners.[9]

Insurers are a mix of for-profit and nonprofit providers. In 2015–2016, private health insurance expenditures represented 8.8 percent of all health spending.[10]



Services covered: The federal government defines and funds MBS benefits, which cover hospital care and medical services, including mental health and maternity care. MBS also provides for limited optometry and children's dental care.

Pharmaceutical subsidies are provided by the government through the PBS. To be listed, pharmaceuticals need to be approved for cost-effectiveness by the Pharmaceutical Benefits Advisory Committee.

The federal government also funds cancer screening and immunization programs that are provided free to targeted population groups.

States are responsible for the delivery of free public hospital services, preventive care, chronic disease management, and supplementary mental health care not covered by Medicare. States also provide means-tested access to medical equipment such as wheelchairs.

Home care for the elderly and hospice care coverage are funded separately by Medicare (see "Long-term care and social supports," below).

Cost-sharing and out-of-pocket spending: Out-of-pocket payments accounted for 16.5 percent of total health expenditures in 2016–2017. The largest share (68%) was for primary care, of which one-third (37%) was for medications, followed by hospital care (11%).[11]

Under Medicare, there are no deductibles or out-of-pocket costs for public patients receiving public hospital services. Cost-sharing for outpatient care varies. The federal government sets Medical Benefits Schedule (MBS) fees for general practitioner (GP) and specialty visits; it pays GPs 100 percent of the fee and specialists 85 percent. Patients pay the remaining 15 percent of specialist fees, as well as any surcharges. GPs and specialists can choose to charge above the MBS fees, although there is a maximum patient out-of-pocket fee of AUD 83.40 (USD 57.00) per service. About 86 percent of GP visits were provided without an additional charge to patients in 2016–2017.[12] Patients who were charged paid an average of AUD 31 (USD 22).

Out-of-pocket outpatient pharmaceutical expenditures are capped under the PBS (see table). Consumers pay the full price of medicines not listed on the PBS. Pharmaceuticals provided to inpatients in public hospitals are generally free.

Safety nets: In addition to providing free public hospital care and capped drug costs, Australia has three safety nets to help with other out-of-pocket costs:

- The Original Medicare Safety Net covers the MBS fee for all out-of-hospital Medicare services above an annual out-of-pocket threshold of AUD 461 (USD 322). If there are charges above the fee, the individual is responsible for them.
- The Extended Medicare Safety Net covers 80 percent of out-of-pocket, out-of-hospital costs (these include costs above the MBS fee) over an annual threshold of AUD 668 (USD 467) for those with government-issued concession cards (e.g., low-income people, seniors, caregivers) and AUD 2,093 (USD 1,464) for others.

TYPICAL PATIENT COPAYMENTS AND SAFETY NETS

SERVICE	FEES PER ENCOUNTER/SERVICE	MAXIMUM OUT-OF-POCKET COSTS PER YEAR (SAFETY NET)
Primary care visit	None, if general practitioner (GP) charges national Medicare Benefits Scheme (MBS) fee; however, 14% of GPs charge above national MBS fee Maximum allowed fee per encounter AUD 82 (USD 57)	*Original Medicare Safety Net:* For out-of-hospital costs above AUD 461 (USD 322), individual receives 100% of Medicare schedule fee *Extended Medicare Safety Net:* Medicare pays 80% of out-of-pocket expenses, including costs above Medicare schedule fee, for out-of-hospital charges above AUD 668 (USD 467) for those with government-issued concession cards (e.g., low-income people, seniors, caregivers) and AUD 2,093 (USD 1,464) for others
Specialist consultation	15% of national MBS fee, plus any surcharge set by specialist Average payment is AUD 80 (USD 56); maximum allowed fee per encounter is AUD 82 (USD 57)	
Hospitalization (per day or visit) including pharmaceuticals	**Public:** None **Private:** Varies	**Public:** None **Private:** No caps
Prescription drugs (outpatient)	**Low-income:** AUD 6.0 (USD 4.2) maximum per prescription **All other:** AUD 39.50 (USD 28.00) maximum per prescription	**Low-income:** AUD 384 (USD 268) per year **All other:** After patient pays AUD 1,522 (USD 1,064) out of pocket, prescriptions are capped at AUD 6.0 (USD 4.2) per prescription

A maximum out-of-pocket fee per out-of-hospital service (known as the Greatest Permissible Gap) is set at AUD 83.40 (USD 57.00); this fee may be covered by private health insurance for those with coverage.[13] War veterans, the widowed, and their dependents may be eligible for further discounts.

How is the delivery system organized and how are providers paid?

Physician education and workforce: Physicians are trained primarily at public (but also private) universities, with their fees subsidized through the tax system. Annual tuition fees are approximately AUD 65,000 (USD 45,454), with the student contribution capped at AUD 10,754 (USD 7,520) per annum for Australian citizens.[15]

The federal government provides primary care doctors with financial incentives to practice in rural and remote areas. There is no cap on the number of physicians in Australia, and workforce shortages are addressed through internationally trained providers.

Primary care: In 2015, there were 34,367 GPs, 49,060 practitioners registered as both generalists and specialists, and 8,386 providers registered as specialists.[16] GPs are typically self-employed, with about four physicians per practice on average.[17] In 2013–2014, GPs earned an average of AUD 3,024 (USD 2,115) per week, around half (56%) of what specialists earned.[18] The schedule of MBS service fees is set by the federal health minister. Registration with a GP is not required, and patients choose their primary care doctor. GPs operate as gatekeepers; a referral to a specialist is needed for a patient to receive the MBS subsidy for specialist services.

GPs are paid primarily on a fee-for-service basis through the MBS model, although they can also receive funding from a performance-based initiative called the Practice Incentives Program. The Practice Incentives Program accounts for 5.5 percent of federal expenditures on GPs.[19]

The federal government also encourages multidisciplinary care coordination by funding large multidisciplinary GP clinics, known as Super Clinics, and through the establishment of Primary Health Networks, which support more efficient, effective, and coordinated primary care.

In 2015, there were 11,040 nurses or midwives working in a general practice setting.[20] Their role has been expanding with the addition of a practice nurse payment in the Practice Incentives Program. Nurses in general practice settings provide chronic disease management and care coordination, preventive health education, and oversight of patient follow-up and reminder systems.

Outpatient specialist care: Specialists deliver outpatient care in private practice (8,001 specialists in 2015) or in public hospitals (3,745).[21] Patients are able to choose which specialist they see but must be referred by their GP to receive MBS subsidies. Specialists are paid on a fee-for-service basis. They receive federal subsidies for 85 percent of the MBS fee and set their patients' out-of-pocket fees independently. Many specialists split their time between private and public practice.

Administrative mechanisms for direct patient payments to providers: Many practices have the technology to process claims electronically so that reimbursements from public and private payers are instantaneous, and patients pay only their copayment (if the provider charges above the MBS fee). If the technology is not in place, patients pay the full fee and seek reimbursement from Medicare and/or their private insurer.

After-hours care: GPs are required to ensure that after-hours care is available to patients, but are not required to provide care directly. They must demonstrate that processes are in place for patients to obtain information about after-hours care and that patients can contact them in an emergency. After-hours walk-in services are available and may be provided in a primary care setting or within hospitals. Because there is free access to emergency departments, some patients may use these facilities for after-hours primary care.

The government also provides funds to Primary Health Networks to support and coordinate after-hours services, and there is an after-hours advice and support line.

Hospitals: In 2016–2017, there were 695 public hospitals (673 acute, 22 psychiatric), with a total of nearly 60,300 beds. Hospital beds have increased by an annual average of 1.5 percent, maintaining a consistent supply of 2.5 beds per 10,000 population. In the same period, there were 630 private hospitals (341 day hospitals and 289 others) with 33,100 beds.[22] Private hospitals are a mix of for-profit and nonprofit.

Public hospitals receive a majority of funding (92%) from the federal government and state governments, with the remainder coming from private patients and their insurers. Most of the public hospital funding (66% of total recurrent expenditures) goes toward the salaries of employed physicians.

Private hospitals receive most of their funding from private health insurers and patients (68%), with 32 percent coming from government.[23]

Public hospitals are organized into Local Hospital Networks, of which there were 136 in 2016–2017. These vary in size, depending on the population they serve and the extent to which linking services and specialties on a regional basis is beneficial. In major urban areas, a number of Local Hospital Networks comprise just one hospital.

State governments fund their public hospitals largely on an activity basis, using diagnosis-related groups. Federal funding for public hospitals includes a base amount plus money for growth (for further details, see "How are costs contained?").

Small rural hospitals are funded through block grants.[24]

Pharmaceuticals used in hospitals are subsidized by the federal government through the PBS.

Mental health care: Mental health services are a responsibility shared by the federal and state governments as articulated through a rolling series of five-year National Mental Health Plans, with the current plan running until 2022. In addition, federal and state health ministers agreed to the Fifth National Mental Health and Suicide Prevention Plan in August 2017.

Mental health care is provided in many settings, including GPs and specialist care, community-based care, hospitals (both inpatient and outpatient, public and private), and residential care. GPs provide general mental health care and may devise treatment plans of their own or refer patients to specialists. Specialist care and pharmaceuticals are subsidized through the MBS and PBS.

State governments fund and deliver acute mental health and psychiatric care in hospitals, community-based services, and specialized residential care. Public hospital–based care is free to public patients.

In addition, nonprofit organizations, such as LifeLine, BeyondBlue, and HeadSpace, provide important services ranging from suicide prevention to primary preventive care for both adults and youth.

Australia spent AUD 9.0 billion on mental health–related services in 2015–2016. Most of this expenditure goes toward services delivered by state governments ($5.4 billion), with AUD 2.4 billion being for public hospital services and $2.0 billion for community health services. The Australian government subsidizes additional mental health services through the MBS (AUD 1.2 billion) and the PBS (AUD 511 million). Specialized mental health services in private hospitals cost AUD 493 million in 2015–2016.[25]

Long-term care and social supports: Three out of four people receiving long-term care receive residential aged care (nursing home care). Three-quarters of older Australians receive informal care and 60 percent receive formal care. In 2015, 11 percent of Australians were informal caregivers, and 32 percent of these caregivers were the primary caregiver, or carer.

In 2011–2012, the federal government provided AUD 3.18 billion (USD 2.22 billion) under the income-tested Carer Payment program for caregivers who are providing constant care and are unable to be otherwise employed. The government also contributes AUD 1.75 billion (USD 1.22 billion) to a separate caregiver program, called the Carer Allowance, that provides a supplement for daily care to primary carers, regardless of their income. In addition, the federal government provides an annual Carer Supplement of AUD 480 million (USD 336 million) to help with the cost of caring. Recipients of the Carer Allowance who care for a child under the age of 16 receive an annual Child Disability Assistance Payment of AUD 1,000 (USD 699). There are also a number of respite programs providing further support for caregivers.[26]

Home care for the elderly is provided through the Commonwealth Home Support Program in all states except Western Australia. Subsidies are income-tested and may require copayments from recipients. Services can include assistance with housework, basic care, physical activity, and nursing, among others. The program began in July 2015 and combines home and community care, respite care for caregivers, day therapy, and assistance with care and housing.[27] The Western Australian government has its own initiative, the Home and Community Care Program, which is delivered with funding support from federal government.

Residential aged care be private nonprofit, for-profit, or run by state or local governments. Federally subsidized nursing home accommodations are available. The Australian government supports both permanent and respite residential care. Eligibility is determined through a needs assessment, and permanent care and accommodation costs are means-tested.[28]

Hospice care is provided by states through complementary programs funded by the Commonwealth.

In 2013, the federal government, in partnership with states, implemented the pilot phase of the National Disability Insurance Scheme. Full implementation is planned by 2020, at which point around 460,000 Australians are expected to receive support.29 The scheme provides more flexible funding support for long-term care (not means-tested), to allow greater tailoring of services. The main component of the NDIS is individualized packages of support to eligible people with disabilities.

What are the major strategies to ensure quality of care?

The overarching strategy for ensuring quality of care is captured in the National Healthcare Agreement of the COAG (2012). The agreement sets out the common objective of Australian governments in providing health care — a sustainable system with improved outcomes for all — and the performance indicators and benchmarks on which progress is assessed. It also sets out national-priority policy directions, programs, and areas for reform, such as addressing major chronic diseases and their risk factors. Indicators and benchmarks in the agreement address issues of quality from primary to tertiary care and include disease-specific targets of high priority, as well as general benchmarks.

The Australian Commission on Safety and Quality in Health Care (ACSQHC) is the main body responsible for safety and quality improvement in health care. The ACSQH has developed service standards that have been endorsed by health ministers. These include standards for conducting patient surveys, which must be met by hospitals and day surgery centers to ensure accreditation. The Australian Bureau of Statistics, the national government statistical body, also undertakes an annual patient experience survey.

The Australian Council on Healthcare Standards is the (nongovernment) agency authorized to accredit provider institutions. States license and register private hospitals and the health workforce, legislate on the operation of public hospitals, and work collaboratively through the National Registration and Accreditation Scheme to facilitate workforce mobility across jurisdictions while maintaining patient protections. States also ensure that the workforce maintains minimum hours and standards of continuing education to maintain accreditation.

The Royal Australian College of General Practitioners has responsibility for accrediting GPs. To be eligible for government subsidies, aged-care services must be accredited by the government-owned Aged Care Standards and Accreditation Agency. Beginning in January 2019, the new Aged Care Quality and Safety Commission will be responsible for regulation, compliance, and complaints for aged care.

There are a number of disease and device registries. Government-funded registries are housed in universities and nongovernmental organizations, as well as within state governments. The ACSQH has developed a national framework to support consistent registries.

The National Health Performance Authority reports on the comparable performance of Local Hospital Networks, public and private hospitals, and other key health service providers, but not nursing homes or home care agencies. The reporting framework, agreed to by the Council of Australian Governments, includes measures of equity, effectiveness, and efficiency.

The federal government has regulatory oversight of quarantine, blood supply, pharmaceuticals, and therapeutic goods and appliances.30 In addition, there are a number of national bodies that promote quality and safety of care through evidence-based clinical guidelines and best-practice advice. They include the National Health and Medical Research Council and Cancer Australia.

What is being done to reduce disparities?

The most prominent disparities in health outcomes are between the Aboriginal and Torres Strait Islander population and the rest of Australia's population; these are widely acknowledged as unacceptable. In 2008, the COAG agreed to set a target for closing the gap in life expectancy by 2031. This is a government and nongovernment effort, with the nongovernment component supported through the Australian Human Rights Commission.

Progress toward this target is not on track, with the gap currently at 10.6 years for males and 9.5 for females. From 2005–2007 to 2010–2012, there was a very small reduction in the gap of 0.8 years for males and 0.1 years for females.[31]

Disparities between major urban centers and rural and remote regions, and across socioeconomic groups, are also major challenges. The federal government provides financial incentives to encourage GPs and other health workers to work in rural and remote areas, where it can be very difficult to attract a sufficient number of practitioners. This challenge is also addressed, to an extent, through the use of telemedicine.

What is being done to promote delivery system integration and care coordination?

Approaches to improving integration and care coordination include the Practice Incentives Program, which provides a financial incentive to providers for the development of care plans for patients with certain conditions, such as asthma, diabetes, and mental health needs.

In addition, the Primary Health Networks were established in July 2015 with the objective of improving coordinated care, as well as the efficiency and effectiveness of care for those at risk of poor health outcomes. These networks are funded through grants from the federal government and will work directly with primary care providers, health care specialists, and Local Hospital Networks. Care also may be coordinated by Aboriginal health and community health services.

What is the status of electronic health records?

The Australian Digital Health Agency, established in July 2016, has national responsibility for the country's digital health strategy. An interoperable national e-health program based on personally controlled unique identifiers is now in operation. More than 6 million patients (one-quarter of Australians) and 13.4 million providers are currently registered. As of February 2019, all Australians have a My Health Record created for them unless they have opted out of the system, although individuals can choose to delete their record at any time.32 The record supports prescription information, medical notes, referrals, and diagnostic imaging reports. Patients can view their own medical information and control who can see it, as well as add information about allergies, adverse reactions, and their health care wishes in the event that they become unable to communicate.

How are costs contained?

The major drivers of cost growth are the MBS and PBS. The federal government regularly considers opportunities to reduce spending growth in the MBS through its annual budget process. To influence PBS costs, the government makes determinations about which pharmaceuticals to list on the scheme and negotiates the price with suppliers. It also provides funds to pharmacies to dispense medicines subsidized through the PBS and to support professional programs and the wholesale supply of medicines. This arrangement is implemented through the current Community Pharmacy Agreements, which are renegotiated every five years. The Sixth Community Pharmacy Agreement, which began in July 2015, supports AUD 6.6 billion (USD 4.6 billion) in savings through supply chain efficiencies.33

Hospital budgets are set by the Local Hospital Networks. Hospitals are funded on the basis of what is determined to be an efficient price for delivering services, as determined by the Independent Hospital Pricing Authority. Through 2020, the Commonwealth will fund 45 percent of the efficient growth in these services, capped at 6.5 percent of total growth.34 States are required to cover the remaining cost of services, providing an incentive to keep costs at the efficient price or lower.

Beyond these measures, health costs are controlled mainly through capacity constraints, such as workforce supply.

What major innovations and reforms have recently been introduced?

The Australian government has introduced a number of reforms to care for older people aimed at improving financial sustainability, quality, and consumer choices. The independent Aged Care Quality and Safety Commission, established in early 2019, will bring together previously disparate functions of quality assurance, complaints, and regulation of the aged care sector. The government has also started conducting unannounced audits of aged-care (or nursing) homes for reaccreditation.

The Australian government is also investing more funding to help people remain in their own homes as they age. One example is the Community Visitor scheme, which supports the 70 percent of elderly people who receive aged care at home and experience loneliness.

In its 2018 budget, the federal government allocated AUD 102.5 million (USD 71.7 million) to services for older Australians, with AUD 82.5 million (USD 57.7 million) for residents of aged-care facilities and AUD 20.0 million (USD 14.0 million) for those in the community at risk of isolation.

The 2018 budget also included AUD 72.6 million (USD 50.8 million) for suicide prevention and follow-up care for the adult population and AUD 110 million (USD 77 million) for child and youth health care.

In 2017, the Australian government launched Head to Health, a one-stop electronic resource to direct people experiencing mental health issues to services and resources, supporting them in taking control of their health by reaching out to high-quality, reputable providers. The website was developed in partnership with people and families who have experienced a mental health issue, as well as those who provide care.

The author gratefully acknowledges the contributions of LSE research assistant Michael Woods.

REFERENCES

1. Australian Institute of Health and Welfare (AIHW), *Australia's Health 2018* (AIHW, 2018).
2. Australian Department of Human Services, http://www.humanservices.gov.au/; accessed Nov. 14, 2018.
3. Department of the Prime Minister and Cabinet (DPMC), *Reform of the Federation White Paper: Roles and Responsibilities in Health. Issues Paper 3* (DPMC, 2015).
4. AIHW, *Health Expenditure Australia 2015–16* (AIHW, 2017).
5. Please note that, throughout this profile, all figures in U.S. dollars (USD) were converted from Australian dollars (AUD) at a rate of 1.43 per USD, the purchasing power parity conversion rate for GDP in 2018 reported by OECD for Australia. See https://stats.oecd.org/Index.aspx?DataSetCode=SNA_TABLE4.
6. AIHW, *Health Expenditure Australia 2015–16*.
7. Private Health Insurance Ombudsman, *What Is Covered by Private Health Insurance*? (PHIO, 2018), http://www.privatehealth.gov.au/healthinsurance/whatiscovered/privatehealth.htm; accessed Nov. 14, 2018.
8. AIHW, A*ustralia's Health 2018*.
9. Australian Prudential Regulation Authority, *Statistics: Private Health Insurance Quarterly Statistics*, June 2016 (APRA, 2016).
10. AIHW, *Health Expenditure Australia 2015–16*.
11. AIHW, *Health Expenditure Australia 2015–16*.
12. AIHW, *Australia's Health 2018*.
13. Department of Health, Australian Government (2018), http://www.health.gov.au/internet/main/publishing.nsf/Content/EMSN_Landing_Page; accessed July 23, 2018.
14. Department of Health, Australian Government (2018), www.pbs.gov.au; accessed July 23, 2018.
15. Study Assist, Australian Government (2018), studyassist.gov.au/sites/studyassist/helppayingmyfees/csps/pages/student-contribution-amounts; accessed Feb. 5, 2018.
16. Australian Institute of Health and Welfare, *National Health Workforce Data Set: Medical Practicioners 2015*, table 1, http://www.aihw.gov.au/workforce/medical/how-many-medical-practitioners/.
17. Department of Health, *General Practice Workforce Statistics* (2015), http://www.health.gov.au/internet/main/publishing.nsf/content/F210D973E08C0193CA257BF0001B5F1F/$File/GP Workforce Statistics 2013-14 PUBLIC Web version.pdf, accessed Aug. 12, 2015; and Department of Human Services, Australian Government (2015), http://www.humanservices.gov.au/; accessed Nov. 16, 2015.
18. Australian Taxation Office, ACT, Taxation Statistics 2013-14, Individuals, Table 14, https://data.gov.au/dataset/taxation-statistics-2013-14/resource/c506c052-be2f-4fba-8a65-90f9e60f7775?inner_span=True; accessed July 5, 2018.
19. Australian National Audit Office, Audit Report No. 5 2010–11. *Performance Audit: Practice Incentives Program* (ANAO, 2010).
20. Australian Institute of Health and Welfare, Australian Government (2018), *National Health Workforce Data Set: Nursing and Midwifery 2015*, overview table 10, https://www.aihw.gov.au/reports/workforce/nursing-and-midwifery-workforce-2015/data; accessed Nov. 14, 2018.
21. Australian Institute of Health and Welfare, *National Health Workforce Data Set: Medical Practitioners 2015*, supplementary table 26 (AIHW, 2016).
22. Australian Institute of Health and Welfare, *Hospital Resources 2016–17*: Australian Hospital Statistics (AIHW, 2018).
23. AIHW, *Hospital Resources 2016–17*.
24. Independent Hospital Pricing Authority, *National Efficient Price Determination 2015–16* (IHPA, 2015).
25. Australian Institute of Health and Welfare, Australian Government (2018), https://www.aihw.gov.au/reports/mental-health-services/mental-health-services-in-australia/report-contents/expenditure-on-mental-health-related-services; accessed July 23, 2018.
26. Australian Institute of Health and Welfare, (2018), https://www.gen-agedcaredata.gov.au/Topics/People-using-aged-care; accessed July 5, 2018.
27. Australian Institute of Health and Welfare, "Australia's Welfare" (AIHW, 2017).
28. Department of Social Services (DSS, 2015), *Commonwealth Home Support Programme*, https://www.dss.gov.au/our-responsibilities/ageing-and-aged-care/aged-care-reform/commonwealth-home-support-programme#03; accessed Sept. 6, 2015.
29. For updates, see Australian Government Department of Social Services, National Disability Insurance Scheme, https://www.ndis.gov.au/.
30. Department of Health, Australian Government (2017), http://www.pbs.gov.au/info/general/sixth-community-pharmacy-agreement; accessed Nov. 14, 2018.
31. Australian Institute of Health and Welfare, *Aged Care in Australia* (AIHW, 2015), http://www.aihw.gov.au/aged-careresidential-and-community-2011-12/aged-care-in-australia/; accessed Nov. 18, 2015.
32. Department of Health, https://myhealthrecord.gov.au/internet/mhr/publishing.nsf/Content/news-002; accessed Aug. 21, 2018.
33. Department of the Prime Minister and Cabinet, *Closing the Gap: Prime Minister's Report 2018*, "Healthy Lives," https://closingthegap.pmc.gov.au/sites/default/files/ctg-report-2018.pdf?a=1; accessed Oct. 2, 2018.
34. Australian Institute of Health and Welfare, GEN Aged Care Data, "People Using Aged Care," https://www.gen-agedcaredata.gov.au/Topics/People-using-aged-care; accessed July 5, 2018.

The Brazilian Health Care System

Adriano Massuda, *Fundação Getulio Vargas (FGV-EAESP), Business Administration School of São Paulo,* Mônica Viegas Andrade, *Center for Regional Development and Planning CEDEPLAR, Federal University of Minas Gerais,* Rifat Atun and Marcia C. Castro, *Harvard T.H. Chan School of Public Health*

Brazil's decentralized, universal public health system is funded with tax revenues and contributions from federal, state, and municipal governments. The administration and delivery of care are handled by municipalities or states. All residents and visitors, including undocumented individuals, can access free, comprehensive services, including primary, outpatient specialty, mental health, and hospital care, as well as prescription drug coverage. No application process is necessary. There is no cost-sharing for health care services. Nearly 25 percent of Brazilians, mostly middle- and higher-income residents, have private health insurance to circumvent bottlenecks in accessing care. Private health insurance costs, as well as health-related purchases, qualify as tax deductions.

How does universal health coverage work?

The constitution of Brazil defines health as a universal right and a state responsibility.[1] The Brazilian health system, known as SUS (*Sistema Único de Saúde*), was conceived during the 1980s as part of the social movement aimed at Brazil's re-democratization. SUS was officially created in 1988 by the new Brazilian constitution.

Three principles underpin SUS:

- The universal right to comprehensive health care at all levels of complexity (primary, secondary, and tertiary).
- Decentralization with responsibilities given to the three levels of government: federal, state, and municipal.
- Social participation in formulating and monitoring the implementation of health policies through federal, state, and municipal health councils.

Since 1990, the incremental expansion of SUS has enabled substantial progress toward achieving universal health coverage.

Role of government: The Ministry of Health is responsible for national coordination of SUS, including policy development, planning, financing, auditing, and control. State government duties include regional governance, coordination of strategic programs (such as provision of high-cost medicines), and delivery of specialized services that have not been decentralized to municipalities. The health departments in the 5,570 municipalities largely handle the management of SUS at the local level, including cofinancing, coordination of health programs, and delivery of health services.

Community participation in the public health system is guaranteed by the constitution at all levels of government. Health councils and health conferences are composed of 50 percent community members, 25 percent providers, and 25 percent health system managers. These councils and conferences are responsible for deliberating public health policies and monitoring their implementation.

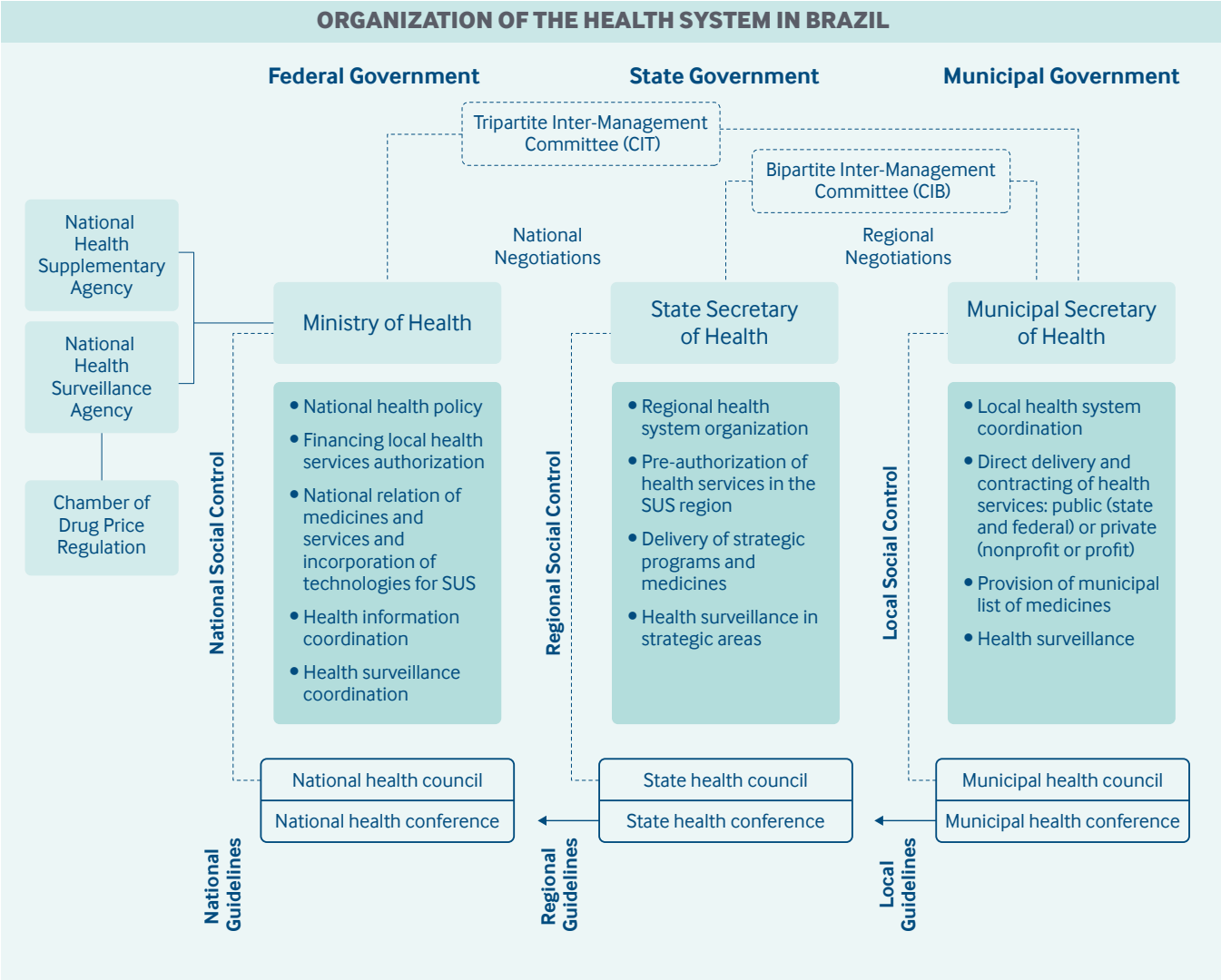
Role of public health insurance: In 2015, health spending in Brazil was 9.1 percent of the gross domestic product (GDP),[2] of which public spending accounted for 42.8 percent. SUS covers all types of health care for all residents and visitors, including undocumented people. No application process is needed to access health services.

Approximately 75 percent of Brazilian citizens rely solely on SUS. Bottlenecks in access and dissatisfaction with health services have prompted middle-income and high-income households to seek private care.[3,4]

The public system is financed by tax revenues and social contributions from all three levels of government. The minimum contribution rates for health expenditures are defined in law as follows:

- Federal: 15 percent of net current government income in 2017, adjusted for annual inflation.
- State: 12 percent of total revenue.
- Municipal: 15 percent of total revenue.

Over the past 30 years, the share of federal funding has declined, while funding from municipalities has increased. In 2017, the federal share was about 43 percent of total public expenditures, while states contributed nearly 26 percent and municipalities 31 percent. As a result, although municipalities are required to spend at least 15 percent of their own total revenues on health, in reality they spend, on average, nearly 24 percent.[5]



Role of private health insurance: Private health insurance is voluntary and supplementary to SUS and regulated by the National Agency of Supplementary Health. In 2018, 23 percent of Brazilians had private medical/hospital insurance, and 9.6 percent had dental insurance. Nearly 70 percent of beneficiaries receive their private health insurance as an employment benefit.

Private health plans offer health care services through their own facilities or through accredited health care organizations. Alternatively, private insurance can reimburse enrollees for purchased health care services.

Brazil spends 0.5 percent of GDP on tax exemptions for private health care, primarily to subsidize those who pay for private health insurance.[6] Individuals and legal entities may deduct health insurance costs as well as the purchase of health services, medicines, and medical supplies from their taxable expenses.

INSURANCE COVERAGE (% OF POPULATION)

Automatic coverage through decentralized Unified Health System, or SUS, funded with tax revenues and contributions from federal, state, municipal governments

Private coverage: 23%

Voluntary duplicative or supplementary insurance (nonprofit or for-profit), either reimbursement-based or with benefits provided through own facilities or accredited organizations

Services covered: SUS offers a broad spectrum of health services free of charge, including[7]:

- preventive services, including immunizations
- primary health care
- outpatient specialty care
- hospital care
- maternity care
- mental health services
- pharmaceuticals
- physical therapy
- dental care
- optometry and other vision care
- durable medical equipment, including wheelchairs
- hearing aids
- home care
- organ transplant
- oncology services
- renal dialysis
- blood therapy.

The expansion of pharmaceutical coverage by the SUS was a pioneering initiative, as Brazil was one of the first middle-income countries in the world to offer free access to HIV/AIDS medication, beginning in 1996. Between 2002 and 2017, the list of essential medicines and medical products grew from 327 to 869. In addition, the Popular Pharmacy of Brazil program provides subsidized contraceptives as well as drugs for dyslipidemia, rhinitis, Parkinson's, osteoporosis, and glaucoma, and free medication for hypertension, diabetes, and asthma.

Cost-sharing and out-of-pocket spending: Out-of-pocket expenditures account for a little more than 27 percent of total health expenditures.[8] However, they represent a considerable financial burden for households, and disproportionately affect the poor. In 2014, 5.3 percent of households experienced such high health expenditures that they had to forgo paying for non-health-related items. The cost of medications was a primary contributor, as only certain drugs are available free of charge under SUS.[9]

Conversely, in the last 10 years, the share of private health care plans charging copayments has grown from 22 percent to 52 percent.[10] However, no clear rules exist for setting copay limits in private insurance.

TYPICAL PATIENT COPAYMENTS/COINSURANCE AND SAFETY NETS

	PUBLIC SECTOR	PRIVATE INSURANCE	
SERVICE		FEES PER ENCOUNTER/SERVICE	MAXIMUM ANNUAL OUT-OF-POCKET COSTS AND SAFETY NETS
Primary care visit	No charge	No limit*	No limit*
Specialist consultation	No charge	No limit*	No limit*
Hospitalization (per day or visit)	No charge	No limit*	No limit*
Prescription drugs (outpatient)	No charge, except for *Farmácia Popular* program, which offers up to 90% discount on drugs for dyslipidemia, rhinitis, Parkinson's disease, osteoporosis, glaucoma, contraceptives, and geriatric diapers. Free medications for hypertension, diabetes, asthma.	Not covered by private insurance.	

* The National Agency for Health (ANS) published rules in 2018 setting limits for monthly and annual copayments. The agency also exempted more than 250 procedures, such as preventive exams and treatments for chronic diseases. However, the Supreme Court suspended implementation of the changes, which have yet to take effect.

How is the delivery system organized and how are providers paid?

Physician education and workforce: In 2018, Brazil had 451,777 registered physicians (2.18 physicians per 1,000 inhabitants). Of this number, about 63 percent were specialists and 37.5 percent were general practitioners.

The number of medical schools is growing exponentially, driven mainly by the opening of private institutions. In 2017, there were 289 medical schools, offering more than 29,000 training positions. Of these schools, 35 percent were in public universities and 65 percent are private medical schools.[11] In 2019, about 80 percent were private institutions.[12] Education and training at public medical schools are free. Tuition at private medical schools varies from USD 1,400 to USD 3,000 (BRL 6,000 to BRL 13,000) per month.[13]

The geographic distribution of doctors is highly skewed toward larger and wealthier cities. For instance, in 2018, there were one physician per 3,000 individuals in municipalities with fewer than 5,000 inhabitants. In comparison, there were one physician per 230 individuals for municipalities with more than 500,000 inhabitants. This disparity largely reflects the location of medical schools.

The Brazilian government has instituted several initiatives to address the shortage. Several national policies foster physician education, including specialty residencies. In addition, the federal government has begun efforts to ensure a greater supply of primary care physicians and to regulate the location of medical schools, establishing new rules and incentives to open schools in municipalities where health care needs are greatest.[14]

Primary care: The Family Health Strategy, implemented in 1994, is the national policy for the expansion of primary care in SUS. The model promotes the use of family health teams, made up of one doctor, one nurse, one nurse assistant, and up to

12 community health workers. The teams cover 2,000 to 4,000 individuals in households across a geographic area. Oral health teams of one dentist and one or two dental assistants may also be assigned to patient populations.

Further specialized services may be provided by support staff, including nutritionists, psychologists, social workers, psychiatrists, pharmacists, speech and hearing therapists, gynecologist/obstetricians, pediatricians, geriatricians, and others according to local needs.

To encourage the implementation of the team model, the federal government provides funding on a per-capita basis. On a monthly basis, up to BRL 10,695 (USD 2,493) per family health team is transferred to the municipalities, which are responsible for organizing and delivering primary care services. In 2019, 98 percent of the municipalities had adopted the Family Health Strategy model. There were more than 43,000 family health teams and at least 26,000 oral health teams providing care to more than 133 million people (64% of the population).[15]

Most municipalities hire family health team members and set their salaries, resulting in wide wage variations across the country.

The expansion of primary care has increased outpatient doctor visits, leading to a reduction in hospital admissions.[16] In SUS, Brazilians have direct access to primary care and emergency services, but referrals are required for accessing outpatient specialties and hospitals.

The poor quality of services in primary care is a challenge. To address the problem, the federal government introduced a pay-for-performance program for family health teams in 2011.

In the private insurance sector, health plans have begun to offer access to family doctors with no copayment as an alternative to specialist visits — a policy fostered by the National Agency of Supplementary Health.

Outpatient specialist care: States or municipalities oversee the provision of specialty care, including service delivery and provider payment. Outpatient specialty care is usually organized in association with hospital care.

Facilities vary in scope and organization, ranging from stand-alone specialized ambulatory care facilities to polyclinics with several ambulatory specialities. Outpatient services can be delivered by public entities (municipal, state, or federal) or private facilities (nonprofit or for-profit). Most outpatient facilities are in the private sector.

SUS allows access to outpatient specialists after a hospital discharge. Otherwise, a referral from a primary care physician is required.

The federal government reimburses states or municipalities according to the volume of specialist services provided. States and municipalities pay for specialist services predominantly on a fee-for-service basis. The fees follow the national list of SUS procedures (tabela SUS), which are usually well below actual costs. For example, the fee schedule for a specialist consultation is less than BRL 10 (USD 2.33).

Specialists who work in the public sector have the freedom to undertake private work and see private patients.

Innovative initiatives are underway to change the outpatient specialist model of care and integrate specialist services into health networks.[17] For instance, public–private partnerships are being considered.[18] However, integration has been challenging, and access to specialist services is a major bottleneck in SUS. The unnecessary referral and retention of patients by specialists results in long queues for individuals in genuine need of specialized care. Unmet demand and delays in diagnosis are also common problems.

Specialist outpatient services are free of charge in SUS, but capacity shortages have constrained access to specialist services in the public sector and encouraged the growth of a substantial private market in outpatient specialist care.

Administrative mechanisms for direct patient payments to providers: Since primary and specialty outpatient care is free to Brazilians under SUS, patients do not have to make any direct payments to providers.

After-hours care: After-hours care is usually provided by hospitals, as well as by emergency care units. Created in 2008 to address the lack of hospital beds, these units are an important component of the emergency care network, with each unit providing 24/7 services to cover a population of 50,000 to 300,000 people.[19]

Although emergency care units are supposed to be integrated with primary care services, ambulance services, and hospital care in health regions, coordination between these services is weak. In 2019, there were 1,072 emergency units in 868 municipalities.[20] Doctors or nurses in the emergency care units usually also work in hospitals or ambulances, and less commonly in primary care.

The Ministry of Health has created monetary incentives to ensure adequate emergency care. In addition to helping municipalities invest in new emergency care units, the government helps cover expenses for established units.

Hospitals: Although the federal government contributes to the financing and delivery of services by federal hospitals, the contracting and reimbursement of hospital services is the responsibility of either the state or the municipal government.

In 2015, there were 6,154 general and specialized hospitals in Brazil, with 443,257 beds, of which 71 percent were in SUS. Of the total number of hospitals, 38 percent were public and 62 percent private. Among the public hospitals, 4 percent were federal, 25 percent were owned by states, and 70 percent were owned by municipalities. Among private hospitals, 38 percent were nonprofit and 63 percent were for-profit.[21]

While the majority of hospitals (52%) are located in municipalities, most of these are small, with fewer than 50 beds, and have low levels of efficiency and effectiveness. Federal and state public hospitals are usually larger in size, have higher occupancy rates, and provide higher-complexity procedures.

Inpatient care is financed using two mechanisms. First, the federal government estimates the number and profile of hospital admissions for each municipality or state on the basis of population needs, available infrastructure, and historical trends. Predetermined payments are set for different diagnoses. For each diagnosis, there is a package of procedures and an expected length of hospitalization. Based on those estimates, the Ministry of Health transfers funds to the state or municipality, which in turn reimburses the hospitals on a fee-for-service basis.

There is also a second payment system for high-complexity procedures. Every establishment that delivers highly complex procedures, such as chemotherapy, and distributes high-cost drugs is reimbursed under this system. The Ministry of Health directly reimburses municipalities or states according to the volume of complex services delivered. The state or municipality then pays the facilities providing the services.

The fees under both payment systems follow the national list of SUS procedures, which is not updated regularly. As a result, relative prices are distorted. To compensate in part for this deficit, the Ministry of Health has implemented performance-based incentive payments for state- or municipality-owned hospitals to achieve specific goals, including the integration of hospitals with other health care providers.

In public hospitals, health professionals are typically contracted by the government and paid fixed monthly salaries. More recently, some states and municipalities have begun contracting with private organizations and/or entered into public–private partnerships to manage hospitals. In 2015, there were 51 organizations contracted to provide inpatient care.

Mental health care: In 2001, Brazil began shifting mental health care from hospitals and hospice-based inpatient settings to community- and home-based outpatient care.[22] Psychosocial Care Centers form the core of these mental health services. The centers have multiprofessional teams that provide care for people with behavioral health issues, including substance use disorder. They offer clinical care and psychosocial rehabilitation, and aim to avoid hospitalization and emphasize social inclusion. In 2019, there were just over 3,000 centers in some 2,000 municipalities. The centers are being reorganized as part of mental health networks.[23]

Mental health networks also include:

- residential therapeutic services for patients who have previously received inpatient care and do not have any relatives who can take care of them
- host units, which are short-term residential services offering continuous care mainly for vulnerable populations
- mental health teams that are integrated with family health teams at primary care centers, emergency care units, and hospitals.

Brazil also provides subsidies to some individuals with mental disorders during their post-discharge rehabilitation period. Individuals who receive inpatient care for more than two years without interruption are eligible to receive a cash transfer of approximately BRL 412 (USD 96) per month for one year, which can be renewed if necessary.[24]

Long-term care and social supports: In 2015, 11,227 hospital beds (2.5% of total) were classified as beds for chronic patients. Of those, 9,439 (84%) were in SUS; the rest were in the private sector.[18] Since 2012, the Ministry of Health has been financing long-stay beds, characterized as extended-care units, for clinically stable patients receiving rehabilitation.

SUS also offers home care services, according to a patient's health needs. Less-complex patients can receive visits by the family health team. Cases of higher complexity, requiring more intensive health care, can be seen by multiprofessional home care teams.

In 2019, there were 831 home care teams in 241 municipalities across the country.[18] Each team can cover 30 to 60 patients.

What are the major strategies to ensure quality of care?

Over the years, several initiatives were developed within SUS to better evaluate health system performance, protect patients, and improve quality of care.

In 2012, the Ministry of Health launched SUS Performance Index, which tracks indicators related to access, effectiveness, equity, and other improvement goals. However, political and policy changes have hampered the use of these evaluations for improving quality of care.

In 2011, the Ministry of Health created a national program for improving access and quality in primary care. Although voluntary, the program included nearly 39,000 family health teams. As a financial incentive to improve quality, family health teams receive additional payments based on a facility evaluation, performance on health indicators, and interviews with health care professionals, municipal managers, and service users.[25]

In the hospital sector, the Brazilian Accreditation System was created in the late 1990s with the aim of promoting the improvement of quality of care. The National Accreditation Organization leads hospital accreditation. According to a 2009 survey, many accredited hospitals were private, had more than 150 beds, and were in Brazil's southeast.

In 2013, the Ministry of Health established the National Patient Safety Program, which follows the World Alliance for Patient Safety's guidelines. Patient-safety centers have been established in public and private hospital services, and it is mandatory to report adverse events, including inpatient falls and misapplications of medication.

What is being done to reduce disparities?

Democratic progress in Brazil has enabled the development of national policies to ensure human rights and universal access for vulnerable groups.[26] The National Human Rights Plan defends civil rights, protects social groups that have suffered historical inequities, and guarantees social rights in the context of economic inequalities.

Health policies have been implemented to improve equity and reduce disparities for black Brazilians; Romany and descendants of escaped slaves (quilombolas); lesbian, gay, bisexual, and transgender groups; the homeless; and people living in rural areas and riverine communities. Initiatives have included adding gender reassignment surgery to SUS coverage; adding information on color and race to SUS ID cards; giving attention to sickle cell anemia, which disproportionately affects black people; exempting gypsies from having to show proof of residence to qualify for SUS care; and recognizing the role of healers and midwives in health care.

In the Ministry of Health, the Special Secretariat for Indigenous Health was created to coordinate and manage policies and programs related to the health of indigenous people. Priorities include observing traditional health practices and carrying out sanitation actions to ensure indigenous health. The Brazilian indigenous population encompasses nearly 820,000 people in close to 5,400 villages (12.6% of Brazilian territory).

The expansion of primary care has led to large improvements in access and in health outcomes.[27] Primary care services have been developed locally to reduce disparities and address differential patterns of burden and need. Local solutions include mobile clinics for the homeless, floating health units in river communities, and indigenous health teams.

What is being done to promote delivery system integration and care coordination?

Brazil has developed organizational frameworks for health care coordination across the regionalized health system, including the following:

- Regional regulatory centers coordinate patient referrals to outpatient specialized, hospital, and emergency services.
- Guidelines for organizing health care networks have been published by the Ministry of Health.
- Financial incentives, care guidelines, and care pathways encourage the coordination of mental health care, emergency care, maternal care, and care for people with disabilities, chronic diseases, and cancer.
- The telehealth program, established by the Ministry of Health, provides remote clinical care and support, reducing costs for patients and expanding the capabilities of family health teams.

However, integrated, coordinated care remains a major challenge, especially in the private sector, resulting in fragmentation, redundancy, and major gaps in health care.

What is the status of electronic health records?

Information technology is coordinated nationally by the Department of Informatics, which is linked to the Ministry of Health. However, states and municipalities use different information systems, leading to data integration challenges and making it difficult to implement a national integrated electronic health record (EHR).

Since the late 1990s, the Ministry of Health has developed policies and initiatives to implement a National Health Card with an individualized number for each person, to better monitor utilization and to optimize service provision.

Recently, the Ministry of Health launched e-SUS software intended to integrate the multiple information systems within SUS.

In 2017, 90 percent of health care providers in the public sector used computers and 77 percent had access to the Internet.28 In 2018, about 19,000 of the 42,600 primary care units used EHRs. Of these, 9,373 primary care units were using the Ministry of Health EHRs, and 9,790 had their own systems.

How are costs contained?

A 17 percent increase in the cost of medicines and medical supplies was observed between 2010 and 2014.29 Important efforts have been launched by the federal government to contain these costs, including more-pervasive regulation of new technologies, centralized purchasing of high-cost medicines, and public–private partnerships for the national production of strategic products through technology transfer. In 2012, the National Commission of Technologic Incorporation (CONITEC) was established. The CONITEC approves inclusion, exclusion, and approval guidelines for the use of new and existing health technologies. From 2012 through 2016, 69 health technologies were removed while 132 new health technologies were incorporated (62% of these were medicines and 38% were medical devices, diagnostic products, health products, and procedures).30 In 2018, 84 partnerships for technology transfer were initiated: 67 for medicines, 12 for equipment and medical materials, and five for vaccines, with an estimated savings of BRL 4.68 billion (USD 1.09 billion) in product purchases between 2011 and 2017.[31]

What major innovations and reforms have recently been introduced?

Brazil's ongoing political and economic crisis has affected financing for all public policies and programs, including SUS.[32] Long-term fiscal austerity policies were implemented in 2016 and followed by rationing measures. In 2017, around 1,200 ministerial directives that regulate transfers of federal resources were unified under a unique consolidation ordinance.[33] In addition, the federal government has promoted the unification of SUS financing for primary care, complex health services, pharmaceutical care, and health surveillance and management. The goal is to reduce bureaucracy and increase flexibility in how municipalities use financial resources at local levels. Despite the benefits of these measures, there are concerns about underfinancing in strategic areas, such as primary care and health surveillance, due to the concentration of financial resources in specialized and hospital care.[34]

After a political shift in 2019, the new Brazilian government maintained its fiscal austerity policy and introduced other social, educational, and environment policies that may threaten health.[35] Nevertheless, the Ministry of Health has proposed new policies to strengthen and expand access to primary care, including the creation of a new secretary dedicated to primary care. These policies aim to increase access to family health units; to delineate a new efficiency-based funding model and a model for the training and provisioning of physicians in remote areas; and to expand the use of electronic medical records.[36]

REFERENCES

1. *Constitution of the Federative Republic of Brazil,* constitutional text of Oct. 5, 1988, with alterations introduced by Constitutional Amendments 1/92–72/2013 and by Revision Constitutional Amendments 1/94–6/94, translated and revised by I. Vajda, P. de Queiroz Carvalho Zimbres, V. Tavares de Souza, 6th rev. ed. (Federal Senate, Undersecretariat of Technical Publications, 1993), p. 351.
2. S. F. Piola, R. P. Benevides, and F. S. Vieira, *Consolidação do gasto com ações e serviços públicos de saúde: trajetória e percalços no período de 2003 a 2017* (Instituto de Pesquisa Econômica Aplicada, 2018).
3. L. M. Pacheco Santos et al., "The End of Brazil's More Doctors Programme?" *BMJ* 363 (Dec. 18, 2018): k5247.
4. Departamento de Atenção Básica, *Histórico de Cobertura da Saúde da Familia* (Departamento de Atenção Básica, 2018), http://dab.saude.gov.br/portaldab/historico_cobertura_sf.php; accessed Oct. 24, 2018.
5. Piola et al., *Consolidação do gasto com ações e serviços públicos de saúde.*
6. C. O. Ocké-Reis, "Sustentabilidade do SUS e renúncia de arrecadação fiscal em saúde," *Ciência & Saúde Coletiva* 23 (2018): 2035–42.
7. I. Soares Santos, M. A. Dominguez Ugá, and S. M. Porto, "O mix público-privado no Sistema de Saúde Brasileiro: financiamento, oferta e utilização de serviços de saúde," *Ciência & Saúde Coletiva* 13, no. 5 (2008): 1431–40.
8. World Health Organization, Global Health Expenditure Database (2019).
9. V. L. Luiza et al., "Catastrophic Expenditure on Medicines in Brazil," *Rev Saude Publica* 50, suppl. 2 (Dec. 1, 2016): 15s.
10. Agência Nacional de Saúde Suplementar, "Franquia e Coparticipação," http://www.ans.gov.br/aans/noticias-ans/consumidor/4501-franquia-e-coparticipacao; accessed Oct. 1, 2019.
11. M. Scheffer et al., *Demografia médica no Brasil* (Departamento de Medicina Preventiva da Faculdade de Medicina da USP; Conselho Regional de Medicina do Estado de São Paulo; Conselho Federal de Medicina, 2018).
12. Escolas Médicas website, https://www.escolasmedicas.com.br; accessed Oct. 1, 2019.
13. Please note that, throughout this profile, all figures in US dollars (USD) were converted from Brazilian real (BRL) at a rate of about 4.29 BRL per USD, the exchange rate on Sept. 29, 2019; see https://www.escolasmedicas.com.br/mensalidades.php.
14. L. M. P. Santos, A. M. Costa, and S. N. Girardi, "Programa Mais Médicos: uma ação efetiva para reduzir iniquidades em saúde," *Ciência & Saúde Coletiva* 20 (2015): 3547–52.
15. Ministério da Saúde, *Histórico de Cobertura da Saúde da Familia* (Secretaria de Atenção Primária em Saúde, 2019), https://egestorab.saude.gov.br/paginas/acessoPublico/relatorios/relHistoricoCoberturaAB.xhtml; accessed Oct. 1, 2019.
16. L. Felipe Pinto and L. Giovanella, "The Family Health Strategy: Expanding Access and Reducing Hospitalizations Due to Ambulatory Care Sensitive Conditions (ACSC)," *Revista Ciência & Saúde Coletiva* 23, no. 6 (2018).
17. C. D. Tesser and P. P. Neto, "Specialized Outpatient Care in the Unified Health System: How to Fill a Void," *Ciência & Saúde Coletiva* 22, no. 3 (March 2017): 941–52.
18. A. P. Barbosa and A. M. Malik, "Desafios na organização de parcerias público-privadas em saúde no Brasil. Análise de projetos estruturados entre janeiro de 2010 e março de 2014," *Revista de Administração Pública-RAP* 49, no. 5 (2015): 1143–65.
19. Ministério da Saúde, "Redefine as diretrizes de modelo assistencial e financiamento de UPA 24h de Pronto Atendimento como Componente da Rede de Atenção às Urgências, no âmbito do Sistema Único de Saúde," *Diário Oficial da República Federativa do Brasil,* 2017.
20. Ministerio da Saúde, CNES – Cadastro Nacional dos Estabelecimentos de Saúde (National Registry of Health Establishment) (DATASUS, 2018), http://cnes.datasus.gov.br/.
21. Barbosa and Malik, *Desafios na organização de parcerias público-privadas em saúde no Brasil.*
22. Law No. 10.216, "Dispõe sobre a proteção e os direitos das pessoas portadoras de transtornos mentais e redireciona o modelo assistencial em saúde mental," *Diário Oficial da República Federativa do Brasil,* 2001.
23. Barbosa and Malik, *Desafios na organização de parcerias público-privadas em saúde no Brasil.*
24. Ministério da Saúde, Secretaria de Atenção à Saúde, Coordenação Geral de Saúde Mental ÁeOD, "Saúde Mental no SUS: Cuidado em Liberdade, Defesa de Direitos e Rede de Atenção Psicossocial," *Relatório de Gestão 2011–2015* (Ministério da Saúde, 2016), p. 143.
25. J. Macinko, M. J. Harris, and M. G. Rocha, "Brazil's National Program for Improving Primary Care Access and Quality (PMAQ): Fulfilling the Potential of the World's Largest Payment for Performance System in Primary Care," *Journal of Ambulatory Care Management* 40, suppl. 2 (April 2017): s4–s11.
26. S.A.V. Siqueira, E. Hollanda, and J.I.J. Motta, "Equity Promotion Policies in Health for Vulnerable Groups: The Role of the Ministry of Health," *Ciência & Saúde Coletiva* 22, no. 5 (May 2017): 1397.
27. M. V. Andrade et al., "Desigualdade socioeconômica no acesso aos serviços de saúde no Brasil: um estudo comparativo entre as regiões brasileiras em 1998 e 2008," *Economia Aplicada* 17, no. 4 (Dec. 2013): 623–45.
28. Comitê Gestor da Internet no Brasil, *Survey on the Use of Information and Communication Technologies in Brazilian Healthcare Facilities: ICT in Health 2017* (Núcleo de Informação e Coordenação do Ponto BR, 2018), https://www.cetic.br/media/docs/publicacoes/2/tic_saude_2017_livro_eletronico.pdf.
29. Ministério da Saúde, *Contas do SUS na perspectiva da contabilidade internacional: Brasil, 2010–2014* (Ministério da Saúde, Fundação Oswaldo Cruz, 2018).
30. R. Caetano et al., "Incorporação de novos medicamentos pela Comissão Nacional de Incorporação de Tecnologias do SUS, 2012 a junho de 2016," *Ciência & Saúde Coletiva* 22, no. 8 (Aug. 2017): 2513–25.
31. C. A. Grabois Gadelha and J. Gomes Temporão, "Development, Innovation and Health: the theoretical and political perspective of the Health Economic-Industrial Complex," *Ciência & Saúde Coletiva* 23, no. 6 (June 2018): 1891–1902.
32. A. Massuda et al., "The Brazilian Health System at Crossroads: Progress, Crisis and Resilience," *BMJ Global Health* 3, no.4 (July 2018): e000829.
33. Government of Brazil, "Portaria de consolidação nº 5, de 28 de setembro de 2017: Consolidação das normas sobre as ações e os serviços de saúde do Sistema Único de Saúde," *Diário Oficial da União,* 2017.
34. L. Jaccoud and F. S. Vieira, "Federalismo, integralidade e autonomia no SUS: desvinculação da aplicação de recursos federais e os desafios da coordenação," Instituto de Pesquisa Econômica Aplicada (IPEA, 1990).
35. M. C. Castro et al., "Brazil's Unified Health System: The First 30 years and Prospects for the Future," *Lancet* 394, no. 10195 (July 27, 2019): 345–56.
36. J.G.D. Reis et al., "Creation of the Primary Health Care Secretariat and Its Implications for SUS," *Ciência & Saúde Coletiva* 24, no. 9 (Sept. 9, 2019): 3457–62.

The Canadian Health Care System

Sara Allin, Greg Marchildon, and Allie Peckham, *North American Observatory on Health Systems and Policies, University of Toronto*

Canada has a decentralized, universal, publicly funded health system called Canadian Medicare. Health care is funded and administered primarily by the country's 13 provinces and territories. Each has its own insurance plan, and each receives cash assistance from the federal government on a per-capita basis. Benefits and delivery approaches vary. All citizens and permanent residents, however, receive medically necessary hospital and physician services free at the point of use. To pay for excluded services, including outpatient prescription drugs and dental care, provinces and territories provide some coverage for targeted groups. In addition, about two-thirds of Canadians have private insurance.

How does universal health coverage work?

Canadian Medicare — Canada's universal, publicly funded health care system — was established through federal legislation originally passed in 1957 and in 1966. The Canada Health Act of 1984 replaces and consolidates the two previous acts and sets national standards for medically necessary hospital, diagnostic, and physician services. To be eligible to receive full federal cash contributions for health care, each provincial and territorial (P/T) health insurance plan needs to comply with the five pillars of the Canada Health Act, which stipulate that it be:

- Publicly administered
- Comprehensive in coverage conditions
- Universal
- Portable across provinces
- Accessible (for example, without user fees).

Role of government: Canadian P/T governments have primary responsibility for financing, organizing, and delivering health services and supervising providers. The jurisdictions directly fund physicians and drug programs, and contract with delegated health authorities (either a single provincial authority or multiple subprovincial, regional authorities) to deliver hospital, community, and long-term care, as well as mental and public health services.

The federal government cofinances P/T universal health insurance programs and administers a range of services for certain populations, including eligible First Nations and Inuit peoples, members of the Canadian Armed Forces, veterans, resettled refugees and some refugee claimants, and inmates in federal penitentiaries. It also regulates the safety and efficacy of medical devices, pharmaceuticals, and natural health products, funds health research and some information technology systems, and administers several public health functions on a national scale.

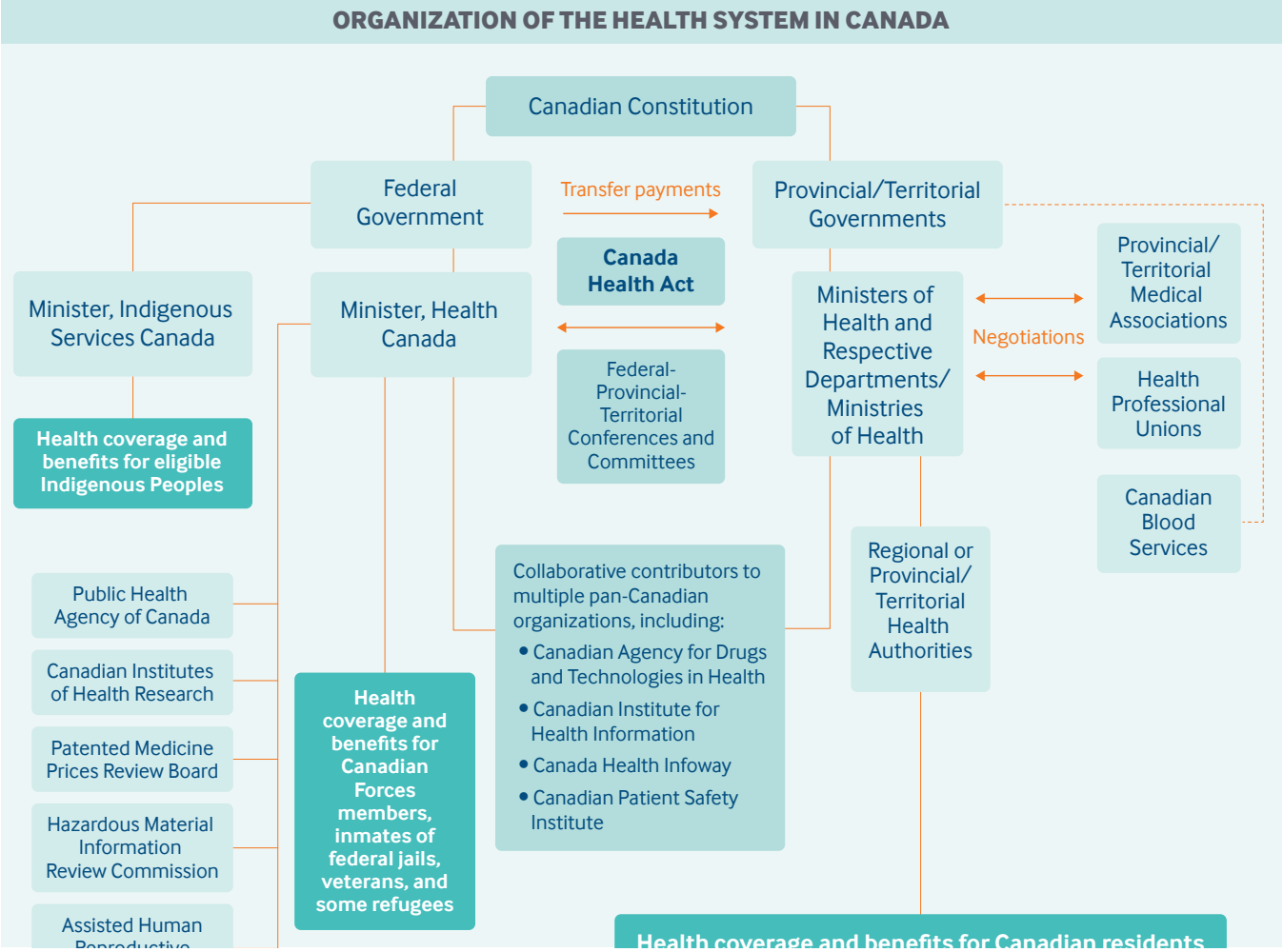
At the national level, a variety of governmental agencies oversee specific functions:

- Health Canada, which is the federal ministry of health, plays a key regulatory role in food and drug safety, medical device and technology review, and the upholding of national standards for universal health coverage.
- The Public Health Agency of Canada is responsible for public health, emergency preparedness and response, infectious and chronic disease control and prevention, and health promotion.
- A new federal government department, Indigenous Services Canada, funds certain health services for First Nations and Inuit.

Most providers are self-governing under P/T law; they are registered with a provincial regulatory body (such as the College of Physicians and Surgeons) that ensures that education, training, and quality-of-care standards are met.

Most provinces have an ombudsperson who advocates on behalf of patients.

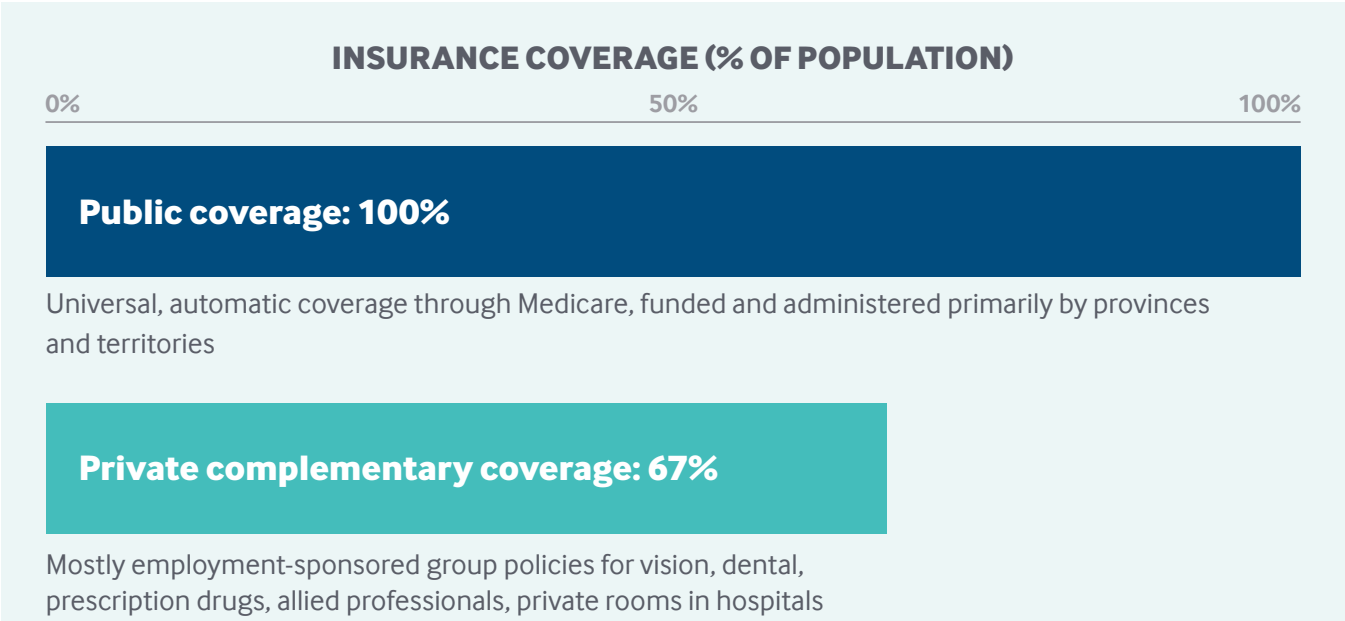
Role of public health insurance: Total health spending is estimated to have reached 11.5 percent of GDP in 2017; the public sector and private sector accounted for approximately 70 percent and 30 percent of total health expenditures, respectively.[1] Each P/T health insurance plan covers all medically necessary hospital and physician services (on a prepaid basis). Supplementary services, or those not covered under Canadian Medicare, are largely privately financed, either from patient out-of-pocket payments or through employer-based or private insurance.



Provinces and territories cover all of their own residents in accordance with their respective residency requirements.[2] Temporary legal visitors, undocumented immigrants, visitors who stay in Canada beyond the duration of a legal permit, and those who enter the country illegally are not covered by any federal or P/T program. Provinces and territories provide limited emergency services to these populations — no physician or hospital can refuse to provide care in an emergency, and midwives provide some maternity services.[3]

The main funding source is general P/T government revenue. Most P/T revenue comes from taxation. About 24 percent (an estimated CAD 37 billion, or USD 29.4 billion, in 2017–2018) is provided by the Canada Health Transfer, the federal program that funds health care for provinces and territories.[4]

Role of private health insurance: Private insurance, held by about two-thirds of Canadians, covers services excluded under universal health coverage, such as vision and dental care, outpatient prescription drugs, rehabilitation services, and private hospital rooms. In 2015, approximately 90 percent of premiums for private health plans were paid through employers, unions, or other organizations under a group contract or uninsured contract (by which a plan sponsor provides benefits to a group outside of an insurance contract). In 2017, private insurance was estimated to account for 12 percent of total health spending. [5] The majority of insurers are for-profit.[6]



Services covered: To qualify for federal financial contributions, P/T insurance plans must provide first-dollar coverage of medically necessary physician, diagnostic, and hospital services (including inpatient prescription drugs) for all eligible residents. All P/T governments also provide public health and prevention services (including immunizations) as part of their public programs.

However, there is no nationally defined statutory benefit package; most public coverage decisions are made by P/T governments in conjunction with the medical profession. Because of this, coverage varies across P/T insurance plans for services not federally mandated as medically necessary, including outpatient prescription drugs, mental health care, vision care, dental care, home care, midwifery services, medical equipment, and hospice care.

Most provinces have public prescription drug coverage programs for specific populations, such as recipients of social assistance, seniors aged 65 and older, and children and youth. Some programs charge premiums, often income-related.[7]

There are some health services that, for the most part, are not covered by any P/T insurance plan, including dental services, physiotherapy, psychologist visits, chiropractic care, and cosmetic or plastic surgery.

Cost-sharing and out-of-pocket spending: There is no cost-sharing for publicly insured physician, diagnostic, and hospital services. Physicians are not allowed to charge patients prices above the negotiated fee schedule.

In 2016, out-of-pocket payments were estimated to represent about 15 percent of total health spending; the majority was spent on nonhospital institutions (mainly long-term care homes), prescription drugs, dental care, and vision care.[8]

Safety nets: To help cover needed prescriptions, provinces and territories provide outpatient drug plans to some individuals lacking private employer-sponsored insurance. Most P/T outpatient drug plans operate as payers of last resort, targeting people on social assistance or of retirement age. These plans vary considerably. For instance, Quebec administers a universal drug plan by mandating that eligible individuals have private coverage and enrolls those not eligible for private coverage in the public plan. In contrast, Ontario, Canada's most populous province, administers a universal prescription drug program for seniors, children and youth without private coverage, and recipients of social assistance.

P/T governments also provide some relief for people with high out-of-pocket expenses. After citizens pay more than 3 percent of their net income, or CAD 2,288 (USD 1,816), whichever is less, for eligible medical expenses per year, they can receive a 15 percent tax credit for any remaining expenses.[9]

In addition, provinces and territories pay for accommodation and food expenses (beyond nursing care) of indigent individuals in publicly financed long-term care facilities.

TYPICAL PATIENT COPAYMENTS/COINSURANCE AND SAFETY NETS			
SERVICE	**FEES PER ENCOUNTER/SERVICE**	**MAXIMUM ANNUAL OUT-OF-POCKET COSTS**	**SAFETY NET**
Primary care visit			
Specialist consultation	No patient charges for physician or hospital services	N/A	N/A
Hospitalization (per day or visit)			
Outpatient prescription drugs Most provinces have population-specific programs; some charge income-related premiums*	**Social assistance recipients:** • Four P/Ts charge fixed copay of CAD 2-5 (USD 1.58-3.90) **Seniors:** • Fixed copays per prescription, ranging from CAD 6 to CAD 30 (USD 4.76-23.00) • Deductible tied to income in Ontario **General population (catastrophic coverage):** • Coinsurance of 30%-35% in five P/Ts • Deductible tied to income in Manitoba • Deductible and fixed copay after deductible in three P/Ts • Fixed monthly deductible of CAD 19.90 (USD 15.80) in Quebec **Children:** • Copays capped in some P/Ts	**Seniors:** No annual limits in most cases **General population (catastrophic coverage):** Annual maximum scaled to income in some P/Ts, e.g., 2%-4% of net family income in British Columbia and 6%-35% in Nova Scotia	**Exempt from copays (varies by P/T):** • Social assistance recipients • Low-income seniors • Children and youth, including full-time students • Individuals in institutional care • Individuals with severe disabilities • Low-income children • Low-income pregnant women, refugees, and high users of prescription drugs **Lower copays (varies by P/T):** • Low-income seniors • Individuals in institutional care

Abbreviations: P/Ts: provinces and territories

*Certain conditions may apply for eligibility in various provinces.

How is the delivery system organized and how are providers paid?

Physician education and workforce: Students who obtained a medical degree from one of Canada's 17 public medical schools paid an average annual tuition of CAD 14,780 (USD 11,730) in 2018–2019.[10] About 27 percent of Canada's physicians received their degree outside Canada.[11]

In 2017, 92 percent of physicians practiced in urban locations.[12] There are no national programs to ensure a supply of doctors in rural and remote locations. However, most provinces have rural practice initiatives. For example, Alberta's Rural, Remote, Northern Program guarantees physicians an income greater than CAD 50,000 (USD 39,382).[13]

Primary care: In 2017, there were 2.3 practicing physicians per 1,000 population; about half (1.2 per 1,000 population) were family physicians, or general practitioners (GPs), and the rest specialists (1.15 per 1,000 population).[14] GPs act largely as gatekeepers, and many provinces pay lower fees to specialists for non-referred consultations.

Most physicians are self-employed in private practices. In 2014, the last year of the National Physician Survey, about 46 percent of GPs worked in a group practice, 19 percent in an interprofessional practice, and 15 percent in a solo practice.[15] In several provinces, networks of GPs work together and share resources, with variations across provinces in the composition and size of teams.[16]

In 2017, about 62 percent of regulated nurses (registered nurses, nurse practitioners, and licensed practical nurses) worked in hospitals and 15 percent in community health settings on salaries.[17] In the three northern territories (Yukon, Northwest Territories, and Nunavut), primary care is often nurse-led.

In theory, patients have free choice of a GP; in practice, however, patients may not be accepted into a physician's practice if the physician has a closed list. The requirements for patient registration vary considerably by province and territory, but no jurisdiction has implemented strict rostering.[18] Quebec, through Family Medicine Groups, has used patient enrollment and added (human and financial) resources to improve access to care.

Fee-for-service is the primary form of physician payment, although there has been a movement toward alternative forms of payment, such as capitation. In 2016–2017, fee-for-service payments made up about 45 percent of GP payments in Ontario, 72 percent in Quebec, and 82 percent in British Columbia; capitation and, to a lesser extent, salaries made up remaining payments.[19]

In 2016–2017, the average clinical payment was CAD 276,761 (USD 219,651) for family medicine, CAD 357,264 (USD 283,543) for medical specialties, and CAD 477,406 (USD 378,894) for surgical specialties.[20]In most provinces, specialists have the same fee schedule as primary care physicians.

Provincial ministries of health negotiate physician fee schedules (for primary and specialist care) with medical associations. In some provinces, such as British Columbia and Ontario, payment incentives have been linked to performance.

Outpatient specialist care: Specialists are mostly self-employed. There are few formal multispecialty clinics.

The majority of specialist care is provided in hospitals, on both an inpatient and an outpatient basis, although there is a trend toward providing less-complex services in nonhospital diagnostic or surgical facilities.

Specialists are paid mostly on a fee-for-service basis, although there is variation across provinces. For example, in Quebec, alternative payment structures made up about 15 percent of total payments to specialists in 2016–2017, as compared to 22 percent in British Columbia and 33 percent in Saskatchewan.

Patients can choose to go directly to a specialist, but it is more common for GPs to refer patients to specialty care. Specialists who bill P/T public insurance plans are not permitted to receive payment from privately insured patients for services that would be covered under public insurance.

Administrative mechanisms for direct patient payments to providers: The majority of physicians and specialists bill P/T governments directly, although some are paid a salary by a hospital or facility. Patients may be required to pay out-of-pocket for services that are not covered by public insurance plans.

After-hours care: After-hours care is often provided in physician-led walk-in clinics and hospital emergency rooms. In most provinces and territories, a free telephone service allows citizens to get health advice from a registered nurse 24 hours a day.

Historically, GPs have not been required to provide after-hours care, although newer group-practice arrangements stipulate requirements or financial incentives for providing after-hours care to registered patients.[21] In 2015, 48 percent of GPs in Canada (67% in Ontario) reported having arrangements for patients to see a doctor or nurse after hours.[22] Yet, in 2016, only 34 percent of patients reported having access to after-hours care through their GP.[23]

Hospitals: Hospitals are a mix of public and private, predominantly not-for-profit, organizations. They are often managed by delegated health authorities or hospital boards representing the community. In most provinces and territories, many hospitals are publicly owned,[24] whereas in Ontario they are predominantly private not-for-profit corporations.[25]

There are no specific data on the number of private for-profit clinics (primarily diagnostic and surgical). However, a 2017 survey identified 136 private for-profit clinics across Canada.[26]

Hospitals in Canada generally operate under annual global budgets, negotiated with the provincial ministry of health or delegated health authority. However, several provinces, including Ontario, Alberta, and British Columbia, have considered introducing activity-based funding for hospitals, paying a fixed amount for some services provided to patients.[27]

Hospital-based physicians generally are not hospital employees and are paid fee-for-service directly by the provincial ministries of health.

Mental health care: Physician-provided mental health care is covered under Canadian Medicare, in addition to a fragmented system of allied services. Hospital-based mental health care is provided in specialty psychiatric hospitals and in general hospitals with mental health beds. The P/T governments all provide a range of community mental health and addiction services, including case management, help for families and caregivers, community-based crisis services, and supportive housing.[28]

Private psychologists are paid out-of-pocket or through private insurance. Psychologists who work in publicly funded organizations receive a salary.

Mental health has not been formally integrated into primary care. However, some organizations and provinces have launched efforts to coordinate or collocate mental health services with primary care. For instance, in Ontario, an intersectoral mental health strategy has been in place since 2011 and was expanded in 2014 to better integrate mental health and primary care.[29]

Long-term care and social supports: Long-term care and end-of-life care provided in nonhospital facilities and in the community are not considered insured services under the Canada Health Act. All P/T governments fund such services through general taxation, but coverage varies across jurisdictions. All provinces provide some residential care and some combination of case management and nursing care for home care clients, but there is considerable variation when it comes to other services, including medical equipment, supplies, and home support. Many jurisdictions require copayments.

Eligibility for home and residential long-term care services is generally determined via a needs assessment based on health status and functional impairment. Some jurisdictions also include means-testing. About half of P/T governments provide some home care without means-testing, but access may depend both on assessed priority and on the availability of services within capped budgets.[30]

The government funds personal and nursing care in residential long-term facilities. In addition, financial supplements based on ability to pay can help support room-and-board costs. Some provinces have established minimum residency periods as an eligibility condition for facility admission.

Spending on nonhospital institutions, most of which are residential long-term care facilities, was estimated to account for just over 11 percent of total health expenditures in 2017, with financing mostly from public sources (70%).[31] A roughly equal mix of private for-profit, private nonprofit, and public facilities provide facility-based long-term care.

Public funding of home care is provided either through P/T government contracts with agencies that deliver services or through government stipends to patients to purchase their own services. For example, British Columbia's Support for Independent Living program allows clients to purchase their own home-support services.[32]

Provinces and territories are responsible for delivering palliative and end-of-life care in hospitals (covered under Canadian Medicare), where the majority of such costs occur. But many provide some coverage for services outside those settings, such as physician and nursing services and drug coverage in hospices, in nursing facilities, and at home.

In June 2016, the federal government introduced legislation that amended the criminal code to allow eligible adults to request medical assistance in dying from a physician or nurse practitioner. Since that time, P/T governments and medical associations have set up processes and regulatory frameworks to allow for medical assistance in dying for individuals facing terminal or irreversible illnesses.

More than 8 million Canadians are estimated to have provided unpaid support to persons living with chronic health and social needs in 2012.[33] Support for informal caregivers (estimated to provide 66% to 84% of care to the elderly) varies by province and territory.[34] For example, Nova Scotia's Caregiver Benefit Program offers eligible caregivers and care recipients CAD 400 (USD 317) per month.[35] There are also some federal programs, including the Canada Caregiver Credit and the Employment Insurance Compassionate Care Benefit.

What are the major strategies to ensure quality of care?

Many provinces have agencies responsible for producing health care system reports and for monitoring system performance. In addition, the Canadian Institute for Health Information produces regular public reports on health system performance, including indicators of hospital and long-term care facility performance. To date, there is no information publicly available on doctors' performance across the country. Most provinces post summary inspection reports online.

Home care agencies do not have reporting standards similar to those for residential long-term care. The Canadian Institute for Health Information has the Home Care Reporting System, which contains demographic, clinical, functional, and resource utilization data for clients served by publicly funded programs across Canada. However, in 2018, only eight jurisdictions were submitting data.[36]

The use of financial incentives to improve quality is limited. At the physician level, they have had, to date, little demonstrable effect on quality.[37] Professional revalidation requirements for physicians, including those for continuing education and peer review, vary across provinces.

A variety of other quality initiatives are in progress:

- The federally funded Canadian Patient Safety Institute promotes best practices and develops strategies, standards, and tools.
- Provincial quality councils facilitate process improvements to produce higher-quality health care.
- The Optimal Use Projects program, operated by the Canadian Agency for Drugs and Technologies in Health, provides recommendations (though not formal clinical guidelines) to providers and consumers to encourage the appropriate prescribing, purchasing, and use of medications.
- The federally funded Canadian Foundation for Healthcare Improvement works with P/T governments to implement performance improvement initiatives.
- Accreditation Canada — a nongovernmental organization — provides voluntary accreditation services to about 1,200 health care organizations across Canada, including regional health authorities, hospitals, long-term care facilities, and community organizations.
- Provincial cancer registries feed data to the Canadian Cancer Registry, a national administrative survey that tracks cancer incidence.
- There is no national patient survey, although a standardized acute-care hospital inpatient survey developed by the Canadian Institute for Health Information has been implemented in several provinces. Each province has its own strategies and programs to address chronic disease.
- The P/T premiers, or prime ministers, established the Health Care Innovation Work Group in 2012 to improve quality by, for example, promoting guidelines for treating heart disease and diabetes and reducing costs.

What is being done to reduce disparities?

The Public Health Agency of Canada includes health disparities reporting in its mandate, and the Canadian Institute for Health Information also reports on disparities in health care and health outcomes, with a focus on lower-income Canadians.[38] No formal or periodic process exists to measure disparities; however, several P/T governments have departments and agencies devoted to addressing population health and health inequities.

Health disparities between indigenous and nonindigenous Canadians are a concern for government at both the federal and the P/T level. The 2018 federal budget offers new funding of CAD 5 billion (USD 3.9 billion) for indigenous people, building on previous investments totaling CAD 11.8 billion (USD 9.3 billion). The money is earmarked for education, the environment (for example, water quality), and health and social services.[39]

In 2015, the Truth and Reconciliation Commission, which was established to collect stories regarding the events and effects of the Indian Residential School legacy, released a series of calls to action, including several addressing health disparities that affect indigenous communities.[40]

In Ontario, a strategy to improve the health of indigenous people was launched in 2016, with emphasis on investments in primary care, cultural competency training for health care providers, access to fresh fruit and vegetables, and mental health services for First Nations youth.[41]

What is being done to promote delivery system integration and care coordination?

Provinces and territories have introduced several initiatives to improve the integration and coordination of care for chronically ill patients with complex needs. These include Divisions of Family Practice (British Columbia), Family Medicine Groups (Quebec), the Regulated Health Professions Network (Nova Scotia), and Health Links (Ontario).

In addition, Ontario has long-standing community-based and multidisciplinary primary care models in place, including Community Health Centres and Aboriginal Health Access Centres. Ontario also continues to expand a pilot program that bundles payments across different providers. This alternative payment approach is expected to improve care coordination for patients as they transition from hospital to the community.[42]

What is the status of electronic health records?

Uptake of health information technologies has been slowly increasing in recent years. Provinces and territories are responsible for developing their own electronic information systems, with national funding and support through Canada Health Infoway. However, there is no national strategy for implementing electronic health records and no national patient identifier.

According to Canada Health Infoway, provinces have systems for collecting data electronically for the majority of their populations; however, interoperability is limited. In 2017, 85 percent of GPs reported using electronic medical records, but patients have limited access to their own electronic health information.[43]

How are costs contained?

Costs are controlled principally through single-payer purchasing, and increases in real spending mainly reflect government investment decisions or budgetary overruns. Cost-control measures include:

- Mandatory global budgets for hospitals and regional health authorities
- Negotiated fee schedules for providers
- Drug formularies for provincial drug plans
- Resource restrictions for physicians and nurses (such as provincial quotas for students admitted annually)
- Restrictions on new investment in capital and technology.

The Canadian Agency for Drugs and Technologies in Health oversees the national health technology assessment process, which is one mechanism for containing new technology costs. This agency produces information about t clinical effectiveness, cost-effectiveness, and broader impact of drugs, medical technologies, and health systems. The agency's Common Drug Review assesses the clinical effectiveness and cost-effectiveness of drugs and provides common, nonbinding formulary recommendations to the publicly funded provincial drug plans (except in Quebec) to support greater consistency in access and evidence-based resource allocation.

The federal Patented Medicine Prices Review Board, an independent, quasi-judicial body, regulates the introductory prices of new patented medications. The board regulates factory gate prices but does not have jurisdiction over wholesale or pharmacy prices, or over pharmacists' professional fees.

Since 2010, the Pan-Canadian Pharmaceutical Alliance has negotiated lower prices for 95 brand-name medications and has set price limits at 18 percent of equivalent brand-name drug prices for the 15 most common generics.[44] Notwithstanding this pan-Canadian collaboration, jurisdiction over prices of generics and control over pricing and purchasing under public drug plans (and, in some cases, pricing under private plans) are held by provinces, leading to some interprovincial variation.

In addition, the Choosing Wisely Canada campaign provides recommendations to governments, providers, and the public on reducing low-value care.[45]

What major innovations and reforms have recently been introduced?

As noted above, prescription drugs, outside of hospitals, are not universally covered. At the federal level, there are signs of renewed interest in a pan-Canadian system of drug coverage. In 2018, the Advisory Council on the Implementation of National Pharmacare was established, and an interim report was produced in 2019.[46] If a national program moves forward, it will be the biggest expansion of public funding and coverage since Canadian Medicare was introduced.

Provinces and territories continue to implement structural reforms to improve efficiency. The latest example occurred in 2017 when Saskatchewan replaced its 12 regional health authorities with a single provincial health authority. This initiative reflects a national trend toward greater administrative centralization. Similarly, as part of an evolving reform effort, Manitoba established a single provincial organization — Shared Health — to centralize some clinical and administrative services. In 2019, the Ontario government announced its plans to consolidate several provincial arm's-length agencies, along with the 14 subprovincial health authorities — Local Health Integration Networks — that administer and deliver health care for their local populations, into a single provincial agency.[47]

REFERENCES

1. Canadian Institute for Health Information, *National Expenditure Trends 1975–2017.*
2. Minister of Health of Canada, *Canada Health Act Annual Report 2016–2017.*
3. Midwives Association of British Columbia, *Immigrant & Refugee Care* (2018); https://www.bcmidwives.com/immigrant_refugee_care.html; Association of Ontario Midwives, *Uninsured Clients* (2018); https://www.ontariomidwives.ca/uninsured-clients.
4. Department of Finance Canada, *Federal Transfers to Provinces and Territories,* https://www.fin.gc.ca/fedprov/mtp-eng.asp.

   Please note that, throughout this profile, all figures in U.S. dollars (USD) were converted from Canadian dollars (CAD) at a rate of about CAD 1.26 per USD, the purchasing power parity conversion rate for GDP in 2017 reported by OECD (2018) for Canada. https://stats.oecd.org/Index.aspx?DataSetCode=SNA_TABLE4; accessed May 17, 2018.
5. Canadian Institute for Health Information, *National Expenditure Trends 1975–2017.*
6. Canadian Life and Health Insurance Association Inc, *Canadian Life and Health Insurance Facts 2016 Edition.*
7. B. Barua, D. Jacques, and N. Esmail, *Provincial Drug Coverage for Vulnerable Canadians* (Fraser Institute, 2018), https://www.fraserinstitute.org/sites/default/files/provincial-drug-coverage-for-vulnerable-canadians.pdf.
8. Canadian Institute for Health Information, *National Expenditure Trends 1975–2017.*
9. Government of Canada, "Lines 330 and 331 – Eligible Medical Expenses You Can Claim on Your Tax Return," https://www.canada.ca/en/revenue-agency/services/tax/individuals/topics/about-your-tax-return/tax-return/completing-a-tax-return/deductions-credits-expenses/lines-330-331-eligible-medical-expenses-you-claim-on-your-tax-return.html.
10. Statistics Canada, "Undergraduate Tuition Fees for Full Time Canadian Students, By Discipline," http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/educ50a-eng.htm.
11. Canadian Institute for Health Information, *Physicians in Canada, 2017,* https://www.cihi.ca/en/physicians-in-canada.
12. Canadian Institute for Health Information, *Physicians in Canada, 2017.*
13. Alberta Medical Association, *Rural, Remote, Northern Program,* https://www.albertadoctors.org/651.aspx.
14. Canadian Institute for Health Information, Physicians in Canada, 2017.
15. College of Family Physicians of Canada, Canadian Medical Association, and Royal College of Physicians and Surgeons of Canada, *National Physician Survey, 2014,* http://nationalphysiciansurvey.ca/.
16. A. Peckham, J. Ho, G. P. Marchildon, "Policy Innovations in Primary Care Across Canada," *Rapid Review,* no. 1 (North American Observatory on Health Systems and Policies, 2018).
17. Canadian Institute for Health Information. "Regulated Nurses, 2017." https://www.cihi.ca/en/regulated-nurses-2017.
18. Peckham, "Policy Innovations in Primary Care Across Canada."
19. Canadian Institute for Health Information, Physicians in Canada; Peckham, Policy Innovations in Primary Care Across Canada.
20. Canadian Institute for Health Information, *Physicians in Canada.*
21. Peckham, "Policy Innovations in Primary Care Across Canada."
22. Canadian Institute for Health Information, *How Canada Compares: Results from the Commonwealth Fund 2015 International Health Policy Survey of Primary Care Physicians* (Jan. 2016), https://www.cihi.ca/en/commonwealth-fund-survey-2015.
23. Canadian Institute for Health Information *Canada Compares: Results From The Commonwealth Fund's 2016 International Health Policy Survey of Adults in 11 Countries* (Feb. 2017), https://www.cihi.ca/en/commonwealth-fund-survey-2016.
24. G. P. Marchildon, *Canada: Health System Review* (WHO Regional Office for Europe on Behalf of the European Observatory on Health Systems and Policies, 2013).
25. Ontario Ministry of Health and Long-Term Care, *Hospitals: Questions and Answers* (2014), www.health.gov.on.ca/en/common/system/services/hosp/faq.aspx.
26. Ontario Health Coalition, *Private Clinics and the Threat to Public Medicare in Canada. Results of Surveys with Private Clinics and Patients* (2017), http://healthcoalition.ca/wp-content/uploads/2017/06/Private-Clinics-Report.pdf.
27. J. M. Sutherland et al., *Paying for Hospital Services: A Hard Look at the Options* (C.D. Howe Institute, 2013).
28. P. Goering, D. Wasylenki, I. Durbin, "Canada's Mental Health System," *International Journal of Law and Psychiatry* 23, nos. 3–4 (May–Aug. 2000): 345–59.
29. Government of Ontario, *Open Minds, Healthy Minds: Ontario's Comprehensive Mental Health and Addictions Strategy* (2014), www.health.gov.on.ca/en/public/programs/mentalhealth/docs/open_minds_healthy_minds.pdf.
30. A. Blomquist and C. Busby, *Long-Term Care for the Elderly: Challenges and Policy Options* (C.D. Howe Institute, 2012).
31. Minister of Health of Canada. *Canada Health Act Annual Report.*
32. British Columbia's Choice in Support for Independent Living program, https://www2.gov.bc.ca/gov/content/health/accessing-health-care/home-community-care/care-options-and-cost/choice-in-supports-for-independent-living.
33. Statistics Canada, *Portrait of Caregivers* (2012), https://www150.statcan.gc.ca/n1/pub/89-652-x/89-652-x2013001-eng.htm.
34. Canadian Association of Retired Persons, *CARP's New Vision for Caregiver Support* (2014), http://www.carp.ca/wp-content/uploads/2014/02/Caregiver-Brief-Feb-2014.pdf.
35. Nova Scotia Canada, "Continuing Care: Caregiver Benefit," https://novascotia.ca/dhw/ccs/caregiver-benefit.asp.
36. Canadian Institute for Health Information, "Home Care," https://www.cihi.ca/en/home-care.
37. R. Carter et al., "The Impact of Primary Care Reform on Health System Performance in Canada: A Systematic Review," *BMC Health Services Research* 30, no. 16 (July 30, 2016): 324.
38. Canadian Institute for Health Information, *Trends in Income-Related Health Inequalities in Canada* (2015), https://www.cihi.ca/en/trends-in-income-related-health-inequalities-in-canada.
39. Government of Canada, *Reconciliation,* https://www.budget.gc.ca/2018/docs/themes/reconciliation-reconciliation-en.html.
40. Truth and Reconciliation Commission of Canada, *Truth and Reconciliation Commission of Canada: Calls to Action* (2015), http://trc.ca/assets/pdf/Calls_to_Action_English2.pdf.
41. Government of Ontario, Ministry of Health, "Ontario Taking Action on Indigenous Health Care," archived news release, Feb. 14, 2018, https://news.ontario.ca/mohltc/en/2018/02/ontario-taking-action-on-indigenous-health-care.html.
42. Government of Ontario, Ministry of Health, *Bundled Care (Integrated Funding Models)* (2018), http://www.health.gov.on.ca/en/pro/programs/ecfa/funding/ifm/.
43. Canada Health Infoway, *Annual Report, 2017–2018* (July 31, 2018), https://www.infoway-inforoute.ca/en/component/edocman/resources/i-infoway-i-corporate/annual-reports/3556-annual-report-2017-2018.
44. Council of the Federation Secretariat, *The Pan-Canadian Pharmaceutical Alliance* (2019), http://www.canadaspremiers.ca/pan-canadian-pharmaceutical-alliance/.
45. Choosing Wisely Canada, https://choosingwiselycanada.org/about/.
46. Government of Canada, *Interim Report from the Advisory Council on the Implementation of National Pharmacare* (2019), https://www.canada.ca/en/health-canada/corporate/about-health-canada/public-engagement/external-advisory-bodies/implementation-national-pharmacare/interim-report.html.
47. Government of Ontario, *Ontario Health Agency,* https://www.ontario.ca/page/ontario-health-agency.

The Chinese Health Care System

Hai Fang
Peking University

China achieves near-universal coverage through the provision of publicly funded basic medical insurance. The urban employed are required to enroll in an employment-based program, which is funded primarily via employer and employee payroll taxes. Other residents can voluntarily enroll in Urban-Rural Resident Basic Medical Insurance, financed primarily by central and local governments through individual premium subsidies. Local health commissions organize public and private health care organizations to deliver services. The basic medical insurance plans cover primary, specialty, hospital, and mental health care, as well as prescription drugs and traditional Chinese medicine. Deductibles, copayments, and reimbursement ceilings apply. There is no annual cap on out-of-pocket spending. Complementary private health insurance helps cover cost-sharing and coverage gaps.

How does universal health coverage work?

China largely achieved universal insurance coverage in 2011 through three public insurance programs[1]:

- Urban Employee Basic Medical Insurance, mandatory for urban residents with formal jobs, was launched in 1998.
- The voluntary Newly Cooperative Medical Scheme was offered to rural residents in 2003.
- The voluntary Urban Resident Basic Medical Insurance was launched in 2007 to cover urban residents without formal jobs, including children, the elderly, and the self-employed.

In 2016, China's central government, the State Council, announced that it would merge the Newly Cooperative Medical Scheme and Urban Resident Basic Medical Insurance to expand the risk pool and reduce administrative costs.[2] This consolidation is still underway. The combined public insurance program is now called Urban-Rural Resident Basic Medical Insurance.

Because China has a huge population, insurance coverage was increased gradually. In 2011, approximately 95 percent of the Chinese population was covered under one of the three medical insurances. Insurance coverage is not required in China.

Role of government: China's central government has overall responsibility for national health legislation, policy, and administration. It is guided by the principle that every citizen is entitled to receive basic health care services. Local governments — provinces, prefectures, cities, counties, and towns — are responsible for organizing and providing these services.

Both national and local health agencies and authorities have comprehensive responsibilities for health quality and safety, cost control, provider fee schedules, health information technology, clinical guidelines, and health equity.

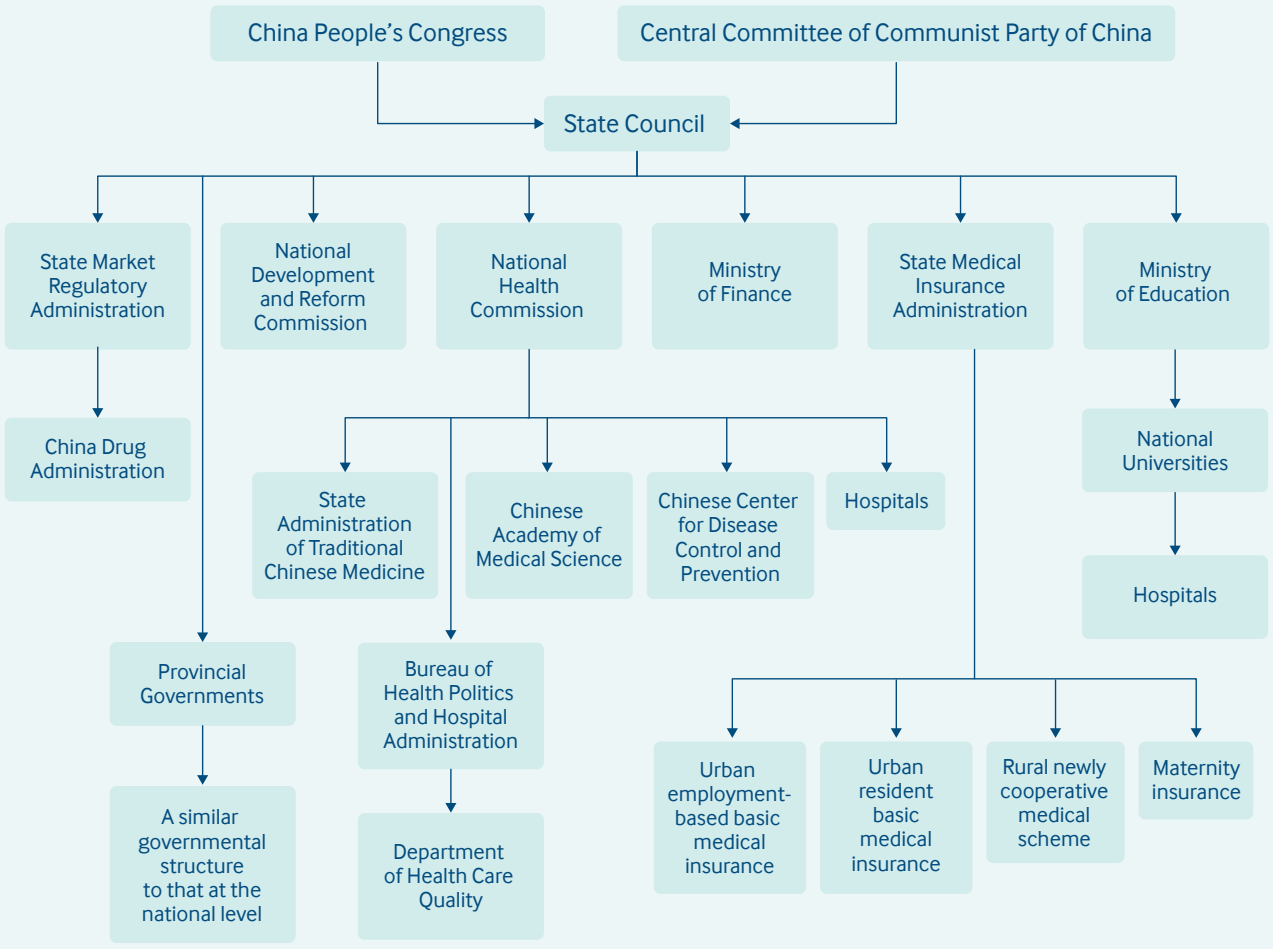
In March 2018, the State Council reorganized the central government's health care structure. The responsibilities of various agencies include the following:

- The National Health Commission is the main national health agency. The commission formulates national health policies; coordinates and advances medical and health care reform; and supervises and administers public health, medical care, health emergency response, and family planning services. The State Administration of Traditional Chinese Medicine is affiliated with the agency.
- The State Medical Insurance Administration oversees the basic medical insurance programs, catastrophic medical insurance, a maternity insurance program, the pricing of pharmaceutical products and health services, and a medical financial assistance program.
- The National People's Congress is responsible for health legislation. However, major health policies and reforms may be initiated by the State Council and the Central Committee of the Communist Party, and these are also regarded as law.
- The National Development and Reform Commission oversees health infrastructure plans and competition among health care providers.

- The Ministry of Finance provides funding for government health subsidies, health insurance contributions, and health system infrastructure.
- The newly created State Market Regulatory Administration includes the China Drug Administration, which is responsible for drug approvals and licenses.
- The China Center for Disease Control and Prevention, although not a government agency, is administrated by the National Health Commission.
- The Chinese Academy of Medical Science, under the National Health Commission, is the national center for health research.

Local governments (of prefectures, counties, and towns) may have their own commissions, bureaus, or health departments. Centers for disease control and prevention also exist in local areas and are likewise administered by local commissions, bureaus, or health departments. At the national level, the China Center for Disease Control and Prevention provides only technical support to the local centers.

ORGANIZATION OF THE HEALTH SYSTEM IN CHINA



Role of public health insurance: In 2018, China spent approximately 6.6 percent of GDP on health care, which amounts to CNY 5,912 billion (USD 1,665 billion).[3] Twenty-eight percent was financed by the central and local governments, 44 percent was financed by publicly funded health insurance, private health insurance, or social health donations, and 28 percent was paid out-of-pocket.[4]

Urban Employee Basic Medical Insurance is financed mainly from employee and employer payroll taxes, with minimal government funding. Participation is mandatory for workers in urban areas. In 2018, 316.8 million had employee-based insurance.[5] The base of the employee payroll tax contribution is capped at 300 percent of the average local salary; individual payroll above this level is not taxed. In most provinces, individual tax rates are about 2 percent. Tax rates for employers vary by province. The base for employer contributions is the sum of employees' payrolls. Workers' nonemployed family members are not covered.

Urban-Rural Resident Basic Medical Insurance covers rural residents and urban, self-employed individuals, children, students, elderly adults, and others. The insurance is voluntary at the household level. In 2018, 897.4 million were covered under the two insurance schemes (the rural plan and the urban nonemployed plan) that make up this program.

Urban-Rural Resident Basic Medical Insurance is financed through annual fixed premiums. Individual premium contributions are minimal, and government subsidies for insurance premiums make up the majority of insurer revenues. In regions where the economy is less developed, the central government provides a much larger share of subsidies than provincial and prefectural governments. In more-developed provinces, most subsidies are locally provided (mainly by provincial governments).

The few permanent foreign residents are entitled to the same coverage benefits as citizens. Undocumented immigrants and visitors are not covered by publicly financed health insurance.

Role of private health insurance: Purchased primarily by higher-income individuals and by employers for their workers, private insurance can be used to cover deductibles, copayments, and other cost-sharing, as well as to provide coverage for expensive services not paid for by public insurance.

No statistics are available on the percentage of the population with private coverage. Private health insurance is provided mainly by for-profit commercial insurance companies.

The total value of private health insurance premiums grew by 28.9 percent per year between 2010 and 2015.[6] In 2015, private health insurance premiums accounted for 5.9 percent of total health expenditures.[7] The Chinese government is encouraging development of the private insurance market, and some foreign insurance companies have recently entered the market.

Services covered: The benefit package is often defined by the local governments. Publicly financed basic medical insurance typically covers:

- inpatient hospital care (selected provinces and cities)
- primary and specialist care
- prescription drugs
- mental health care
- physical therapy
- emergency care
- traditional Chinese medicine.

A few dental services (such as tooth extraction, but not cleaning) and optometry services are covered, but most are paid out-of-pocket. Home care and hospice care are often not included either. Durable medical equipment, such as wheelchairs and hearing aids, is often not covered.

Preventive services, such as immunization and disease screening, are included in a separate public-health benefit package funded by the central and local governments; every resident is entitled to these without copayments or deductibles. Coverage is person-specific; there are no family or household benefit arrangements.

Maternity care is also covered by a separate insurance program; it is currently being merged into the basic medical insurance plan.

Cost-sharing and out-of-pocket spending: Inpatient and outpatient care, including prescription drugs, are subject to different deductibles, copayments, and reimbursement ceilings depending on the insurance plan, region, type of hospital (community, secondary, or tertiary), and other factors:

- Copayments for outpatient physician visits are often small (CNY 5–10, or USD 2–3), although physicians with professor titles have much higher copayments.
- Prescription drug copayments vary; they were about 50 percent to 80 percent of the cost of the drug in Beijing in 2018, depending on the hospital type.
- Copayments for inpatient admissions are much higher than for outpatient services.

There are no annual caps on out-of-pocket spending. In 2018, out-of-pocket spending per capita was CNY 1,186 (USD 262)—representing about 28 percent of total health expenditures.[8] A fairly high percentage of out-of-pocket spending is for prescription drugs.

The public insurance programs only reimburse patients up to a certain ceiling, above which residents must cover all out-of-pocket costs. Reimbursement ceilings are significantly lower for outpatient care than for inpatient care. For example, in 2018, the outpatient care ceiling was CNY 3,000 (USD 845) for Beijing residents under Urban-Rural Resident Basic Medical Insurance. In comparison, the ceiling for inpatient care was CNY 200,000 (USD 56,338). Annual deductibles have to be met before reimbursements, and different annual deductibles may apply for outpatient and inpatient care.

Preventive services, such as cancer screenings and flu vaccinations, are covered by a separate public health program. Children and the elderly have no copayments for these services, but other residents have to pay 100 percent of these services out-of-pocket.

People can use out-of-network health services (even across provinces), but these have higher copayments.

Safety nets: For individuals who are not able to afford individual premiums for publicly financed health insurance or cannot cover out-of-pocket spending, a medical financial assistance program, funded by local governments and social donations, serves as a safety net in both urban and rural areas.

The medical financial assistance program prioritizes catastrophic care expenses, with some coverage of emergency department costs and other expenses. Funds are used mainly to pay for individual deductibles, copayments, and medical spending exceeding annual benefit caps, as well as individual premiums for publicly financed health insurance. In 2018, 76.7 million people (approximately 5.5% of the population) received such assistance for health insurance enrollment, and 53.6 million people (3.8% of the population) received funds for direct health expenses.[9]

TYPICAL PATIENT COPAYMENTS AND SAFETY NETS

SERVICE	FEES PER ENCOUNTER/SERVICE*	MAXIMUM OUT-OF-POCKET COSTS PER YEAR (SAFETY NET)
Primary care visit	Average: CNY 7.20 (USD 2.03) Range: CNY 2.53–8.44 (USD 0.71–2.38)	No annual maximum
Specialist consultation	Average: CNY 58.08 (USD 16.36) Range: CNY 21.95–68.04 (USD 6.18–19.17)	No annual maximum
Hospitalization (per visit)	Average: CNY 3,917 (USD 1,103) Range: CNY 3,491–4,899 (USD 1,110–1,380)	No annual maximum Discounts for retirees
Prescription drugs (outpatient)	For drugs prescribed during primary care visit: Average: CNY 11 (USD 3) Range: CNY 6–13 (USD 2–4) For drugs prescribed during specialist consultation: Average: CNY 52 (USD 15) Range: CNY 31–58 (USD 9–16) Category A drugs are eligible for reimbursement Category B drugs are only partially eligible for reimbursement and have a higher copayment than category A drugs	No annual maximum

* Rates reflect 2016. Cost-sharing varies by type of insurance, region/locality, type of facility, and clinician experience level.

How is the delivery system organized and how are providers paid?

Physician education and workforce: The number of physicians is not regulated at the national level, and the government is trying to encourage more people to complete medical school. All the medical schools are public. Tuition varies by region, ranging from CNY 5,000 (USD 1,408) to CNY 10,000 (USD 2,816) per year. Tuition is heavily subsidized by the government.

To ensure a supply of medical providers in rural or remote areas, China waives tuition and lowers entrance qualifications for some medical students. Medical students who attend these education programs must work in rural or remote areas for at least six years after graduation.

Primary care: Primary care is delivered primarily by:

- Village doctors and community health workers in rural clinics
- General practitioners (GPs) or family doctors in rural township and urban community hospitals
- Medical professionals (doctors and nurses) in secondary and tertiary hospitals.

In 2018, there were 506,003 public primary care facilities and 437,636 private village clinics. Village doctors, who are not licensed GPs, can work only in village clinics. In 2018, there were 907,098 village doctors and health workers. Village clinics in rural areas receive technical support from township hospitals.

Patients are encouraged to seek care in village clinics, township hospitals, or community hospitals because cost-sharing is lower at these care sites than at secondary or tertiary hospitals. However, residents can choose to see a GP in an upper-level hospital. Signing up with a GP in advance is not required, and referrals are generally not necessary to see outpatient specialists. There are few localities that use GPs as gatekeepers.

In 2018, China had 308,740 licensed and assistant GPs, representing 8.6 percent of all licensed physicians and assistant physicians.[10] Unlike village doctors and health workers in the village clinics, GPs rarely work in solo or group practices; most are employed by hospitals and work with nurses and nonphysician clinicians, who are also hospital employees.

Nurses and nonphysician clinicians are sometimes employed as care managers or coordinators to assist GPs in treating patients with chronic illnesses or complex needs. Care coordination is generally not incentivized well, although it is always encouraged by health authorities.

Fee schedules for primary care in government-funded health institutions are regulated by local health authorities and the Bureaus of Commodity Prices. Primary care doctors in public hospitals and clinics cannot bill above the fee schedule. To encourage nongovernmental investment in health care, China began allowing nonpublic clinics and hospitals to charge above the fee schedule in 2014.[11]

Village doctors and health workers in village clinics earn income through reimbursements for clinical services and public health services like immunizations and chronic disease screening; government subsidies are also available. Incomes vary substantially by region. GPs at hospitals receive a base salary along with activity-based payments, such as patient registration fees. With fee-for-service still the dominant payment mechanism for hospitals (see below), hospital-based physicians have strong financial incentives to induce demand. It is estimated that wages constitute only one-quarter of physician incomes; the rest is thought to be derived from practice activities. No official income statistics are reported for doctors.

In 2018, 42 percent of outpatient expenses and 28 percent of inpatient expenses, on average, were for prescription drugs provided to patients in hospitals.[12]

Outpatient specialist care: Outpatient specialists are employed by and usually work in hospitals. Most specialists practice in only one hospital, although practicing in multiple settings is being introduced and encouraged in China. Specialists receive compensation in the form of a base salary plus activity-based payments, with fee schedules set by the local health authorities and Bureaus of Commodity Prices.

Patients have a choice of specialist through their hospital. Outpatient specialists are paid on a fee-for-service basis through the hospitals in which they work, and specialist doctors in the public hospitals cannot bill above the fee schedule.

Administrative mechanisms for direct patient payments to providers: Patients pay deductibles and copayments to hospitals for primary care and specialty physician office visits, and for hospital admissions at the point of service. Hospitals bill insurers directly for the remaining covered payment at the same time through electronic billing systems.

After-hours care: Because village doctors and health workers often live in the same community as patients, they voluntarily provide some after-hours care when needed. In addition, rural township hospitals and urban secondary and tertiary hospitals have emergency departments (EDs) where both primary care doctors and specialists are available, minimizing the need for walk-in, after-hours care centers. In EDs, nurse triage is not required and there are few other restrictions, so people can simply walk in and register for care at any time. ED use is not substantially more expensive than usual care for patients.

Information on patients' emergency visits is not routinely sent to their primary care doctors. Patients can call 120 or 999 for emergency ambulance services at any time.

Hospitals: Hospitals can be public or private, nonprofit or for-profit. Most township hospitals and community hospitals are public, but both public and private secondary and tertiary hospitals exist in urban areas.

Rural township hospitals and urban community hospitals are often regarded as primary care facilities, more like village clinics than actual hospitals.

In 2018, there were approximately 12,000 public hospitals and 21,000 private hospitals (excluding township hospitals and community hospitals), of which about 20,500 were nonprofit and 12,600 were for-profit.[13]

The National Health Commission directly owns some hospitals in Beijing, and national universities (directly administrated by the Ministry of Education) also own affiliated hospitals. Local government health agencies in each province may have a similar structure and often own provincial hospitals.

Hospitals are paid through a combination of out-of-pocket payments, health insurance compensation, and, in the case of public hospitals, government subsidies. These subsidies represented 8.5 percent of total revenue in 2018.[14]

Although fee-for-service is the dominant form of provider payment, diagnosis-related group (DRG) payments, capitation, and global budgets are becoming more popular for inpatient care in selected areas. Pay-for-performance is rare. Local health authorities set fee schedules, and doctors' salaries and other payments are included in hospital reimbursements. There are no special allowances for the adoption of new technologies.

Mental health care: Diagnosis, treatment, and rehabilitation of mental health conditions is provided in special psychiatric hospitals and in the psychology departments of tertiary hospitals. Patients with mild illnesses are often treated at home or in the community clinics; only severely mentally ill patients are treated in psychiatric hospitals. Mental health care is not integrated with primary care.

Outpatient and inpatient mental health services are covered by both public health insurance programs (Urban Employee Basic Medical Insurance and Urban-Rural Resident Basic Medical Insurance). In 2018, there were 42 million mental health patient visits to special psychiatric hospitals; on average, one psychiatrist treated 4.7 patients per day.[15]

Long-term care and social supports: Long-term care and social supports are not part of China's public health insurance.

In accordance with Chinese tradition, long-term care is provided mainly by family members at home. There are very few formal long-term care providers, although private providers (some of them international entities) are entering the market, with services aimed at middle-class and wealthy families. Family caregivers are not entitled to financial support or tax benefits, and long-term care insurance is virtually nonexistent; expenses for care in the few existing long-term care facilities are paid almost entirely out-of-pocket.

The government has designated 15 cities as pilot sites for long-term care insurance, with the aim of developing a formal national policy framework by 2020. Local governments often provide some subsidies to long-term care facilities.

On average, conditions in long-term care facilities are poor, and there are long waiting lists for enrollment in high-end facilities. Formal long-term care facilities usually provide housekeeping, meals, and basic services like transportation, but very few health services. Some, however, may coordinate health care with local township or community hospitals.

Governments encourage the integration of long-term care with other health care services, particularly those funded by private investment. There were 3.8 million beds for aged and disabled people in 2016.[16]

Some hospice care is available, but it is normally not covered by health insurance.[17]

What are the major strategies to ensure quality of care?

The Department of Health Care Quality, which is within the Bureau of Health Politics and Hospital Administration and is overseen by the National Health Commission, is responsible at the national level for the quality of care. The National Health Service Survey for patients and providers is conducted every five years (the latest was in 2018), and a report is published after each survey highlighting data on selected quality indicators. Management programs for chronic diseases are included in the Essential Public Health Equalization Program and are free to every Chinese citizen.

To be accredited, hospitals must obtain a license from the local health authority. Physicians get their practice licenses through hospitals; licenses are subject to renewal. Local health authorities are responsible for physician recertification and revalidation and for hospital accreditation to ensure competency. Several national rankings of hospitals are published by third parties, although there are no financial incentives for hospitals to meet quality targets.[18] No public information about individual doctors, nursing homes, or home care agencies is made available.

Following release of the "Temporary Directing Principles of Clinical Pathway Management" by the former Ministry of Health in 2009, clinical pathways are now regulated nationally and used similarly to clinical guidelines in Western countries. Previously, pathways were created at the hospital, rather than the national, level.

What is being done to reduce disparities?

There are still severe disparities in the accessibility and quality of health care, although China has made significant improvements in this regard in the past decade. Income-related disparities in health care access were especially serious before the reform of the health insurance system more than 10 years ago, as most people did not have any coverage at all. Health coverage through publicly financed insurance is now nearly universal, and there are safety nets for the poor (see above). As a result, income-related disparities have been reduced substantially. However, there is no oversight agency to monitor or report on health disparities and there are no targeted programs to reduce disparities for specific groups.

Remaining disparities in access are due mainly to variation in insurance benefit packages that are determined locally, urban and rural factors, and income inequality. Urban Employee Basic Medical Insurance offers lower cost-sharing than Urban-Rural Resident Basic Medical Insurance. Central and local government subsidies to Urban-Rural Resident Basic Medical Insurance have increased in recent years.

Most good hospitals (particularly tertiary hospitals) with better-qualified health professionals are in urban areas. Village doctors are often undertrained. To help bridge the urban–rural health care gap, the central government and local governments sponsor training for rural doctors in urban hospitals and require new medical graduates to work as residents in rural health facilities. Nevertheless, the *China Health Statistical Yearbook* shows that substantial disparities remain.

What is being done to promote delivery system integration and care coordination?

Medical alliances of regional hospital groups (often including one tertiary hospital and several secondary hospitals) and primary care facilities provide primary care for patients. The aims are to reduce unnecessary visits to tertiary hospitals, cut health care costs, and improve efficiency. At the same time, patients with serious health problems can be referred to tertiary hospitals easily and moved back to primary care facilities after their condition improves. The hospitals within a medical alliance share a common electronic health record (EHR) system, and lab results, radiology images, and diagnoses are easily available within the alliance. It is hoped that this type of care coordination will meet the demand for chronic disease care, improve health care quality, and contain rising costs, but it is rarely employed efficiently.

There are three main medical alliance models.[19] Hospitals in the Zhenjiang model have only one owner (usually the local bureau of health). Those in the Wuhan model do not belong to the same owner, but administration and finances are all handled by one tertiary hospital. Hospitals in the Shanghai model share management and technical skills only; ownership and financial responsibility are separate. The Shanghai model is dominant in China.

What is the status of electronic health records?

Nearly every health care provider has set up its own EHR system. Within hospitals, EHRs are also linked to the health insurance systems for payment of claims, with unique patient identifiers (insurance ID or citizenship ID). However, EHR systems vary significantly by hospital and are usually not integrated or interoperable. Patients often must bring with them a printed health record if they want to see doctors in different hospitals. Even if hospitals are owned by the same local bureau of health or affiliated with the same universities, different EHR systems may be used.

Patients generally do not use EHR systems for accessing information, scheduling appointments, sending secure messages, refilling prescriptions, or accessing doctors' notes. There is no national strategy for establishing standardized EHR systems; however, some regions are in the preliminary stages of planning to establish regional EHRs.

How are costs contained?

Health expenditures have risen significantly in recent decades because of health insurance reform, an aging population, economic development, and health technology advances. Health expenditures increased from CNY 584 (USD 164) per capita in 2004 to CNY 4,237 (USD 1,194) in 2018.[20]

Provider payment reform is one key cost-containment strategy. Prior to the 2009 introduction of DRGs, global budgets, and capitation, fee-for-service was the main payment mechanism, and consumer- and physician-induced demand increased costs significantly. Global budgets have been used in many regions; these are relatively easy for authorities to implement.

As noted above, the government also encourages the use of community and township hospitals over the more expensive care provided in tertiary hospitals. Hospitals compete on quality, level of technology, and copayment rates.

In township, community, and county hospitals, a campaign of "zero markups" for prescription drugs was introduced in 2013 to contain rising drug costs. This program was extended to secondary and tertiary hospitals in many regions.

In addition, the National Development and Reform Commission and National Health Commission place stringent supply constraints on new hospital buildings and hospital beds, and they also control the purchase of high-tech equipment, such as MRI scanners.

What major innovations and reforms have recently been introduced?

In March 2018, the 13th National People's Congress unveiled a plan for restructuring its biggest cabinet (the State Council) in order to improve efficiency and public services (see above).

REFERENCES

1. H. Yu, "Universal Health Insurance Coverage for 1.3 Billion People: What Accounts for China's Success?" *Health Policy* 119, no. 9 (Sept. 2015): 1145–52.
2. The State Council, *The State Council's Suggestion on Merging Urban-Rural Resident Basic Health Insurance* (2016), http://www.gov.cn/zhengce/content/2016-01/12/content_10582.htm (in Chinese); accessed Aug. 8, 2016.
3. Please note that, throughout this profile, all figures in U.S. dollars (USD) were converted from Chinese yuan (CNY) at a rate of about CNY 3.55 per USD, the purchasing power parity conversion rate for GDP in 2017 reported by OECD (2018) for China. Organisation for Economic Co-operation and Development (OECD), OECD.Stat. (2018), https://stats.oecd.org/Index.aspx?DataSetCode=SNA_TABLE4; accessed April 26, 2018.
4. National Health Commission, *China Health Statistical Yearbook 2019* (China Union Medical University Press, 2019).
5. National Health Commission, *China Health Statistical Yearbook 2019*.
6. Z. Song and Q. Hu, "Development Forecast of Commercial Health Insurance in the Period of the Thirteenth Five-Year Plan," *China Insurance* 5, no. 12 (2016): 12–15.
7. National Health and Family Planning Commission, *Statistical Communiqué of China Health and Family Planning Development in 2015* (2016), http://www.nhfpc.gov.cn/guihuaxxs/s10748/201607/da7575d64fa04670b5f375c87b6229b0.shtml; accessed Aug. 2, 2016.
8. National Health Commission, *China Health Statistical Yearbook 2019*.
9. National Health Commission, *China Health Statistical Yearbook 2019*.
10. National Health Commission, *China Health Statistical Yearbook 2019*.
11. National Development and Reform Commission, National Health and Family Planning Commission, and Ministry of Human Resources and Social Security, "Announcement About Issues Related to Market Adjustment Prices of Health Care Services by Non-Government-Funded Health Institutions" (2014), http://www.gov.cn/xinwen/2014-04/09/content_2655189.htm; accessed Aug. 8, 2016.
12. National Health Commission, *China Health Statistical Yearbook 2019*.
13. National Health Commission, *China Health Statistical Yearbook 2019*.
14. National Health Commission, *China Health Statistical Yearbook 2019*.
15. National Health Commission, *China Health Statistical Yearbook 2019*.
16. National Bureau of Statistics, *China Statistical Yearbook 2017* (China Statistics Press, 2017).
17. X. Chen, "Hospice Care: Pass Away with Warmth," *China Social Protection* 12 (2014): 64–65.
18. S. Dong et al., "Study of Present Situation and Countermeasures of China's Hospital Rankings," *Chinese Hospital Management* 35, no. 3 (2015): 38–40.
19. L. Jiang, S. Song, and W. Guo, "Study on the Models and Development Status of the Regional Longitudinal Medical Alliance in China," *Medicine and Society* 27, no. 5 (2014): 35–38.
20. National Health Commission, *China Health Statistical Yearbook 2019*.

The Danish Health Care System

Karsten Vrangbaek
University of Copenhagen

In Denmark's universal, decentralized health system, the national government provides block grants from tax revenues to the regions and municipalities, which deliver health services. All residents are entitled to publicly financed care, including largely free primary, specialist, hospital, mental health, preventive, and long-term care services. Residents may purchase voluntary complementary insurance to cover copayments for outpatient drugs, dental care, and other services. Supplemental insurance, provided mainly by private employers, offers expanded access to private providers. Cost-sharing limits for adults and for children create a safety net.

How does universal health coverage work?

All registered Danish residents are automatically enrolled in publicly financed health care, which is largely free at the point of use. Registered immigrants and asylum-seekers are also covered, while undocumented immigrants have access to acute-care services through a voluntary, privately funded initiative supported by the Danish Medical Association, the Danish Red Cross, and the Danish Refugee Council.

Danes can choose from two public insurance options. Practically all Danes (98%) choose Group 1 coverage, under which general practitioners (GPs) act as gatekeepers and patients need a referral to see specialists, except for a few specialties. The remaining 2 percent of Danes choose Group 2 coverage, which allows access to specialists without a referral, although copayments apply. Under both insurance options, access to hospitals requires a referral.

Universal access to health care underlies Denmark's Health Law, which sets out the government's obligation to promote population health and prevent and treat illness, suffering, and functional limitations; to ensure high-quality care and easy and equal access; and to promote service integration, choice, transparency, access to information, and short waiting times.

Universal coverage developed gradually, starting in the latter part of the 1800s with nongovernmental insurance, known as sickness funds, covering primary care and user charges for hospital care. In 1973, the current universal public coverage system was founded through legislative reform.

Role of government: The national government sets the regulatory framework for health services and is in charge of general planning, monitoring care quality, and licensing health care professionals. The national government also collects taxes and allocates funding to regions and municipalities based on sociodemographic criteria and activity.

The state does not have a direct role in the delivery of health care services. Five regions governed by democratically elected councils are responsible for the planning and delivery of specialized health care services and play a role in specialized social care and coordination. The regions own, manage, and finance hospitals. They also finance the majority of services delivered by private general practitioners (GPs), office-based specialists, physiotherapists, dentists, and pharmacists, as well as specialized rehabilitation. Eighty percent of funding for the regions comes from the state, and 20 percent from municipalities.

Municipalities are responsible for financing and delivering nursing home care, home nurses, health visitors, some dental services, school health services, home help, substance use treatment, public health and health promotion, and general rehabilitation.

The general regulation, planning, and supervision of health services, including overall cost-control mechanisms, take place at the national level through Parliament, the Ministry of Health, and four governmental agencies:

- The Health Authority, which provides general monitoring and regulation of quality through such measures as clinical guidelines and licensing of health care personnel, usually in close collaboration with representatives from medical societies
- The Medicines Agency, which regulates market access and pharmacovigilance, among other functions
- The Patient Safety Authority, which handles patient complaints and compensation claims, collects information about errors to foster systematic learning, and provides information about treatment abroad

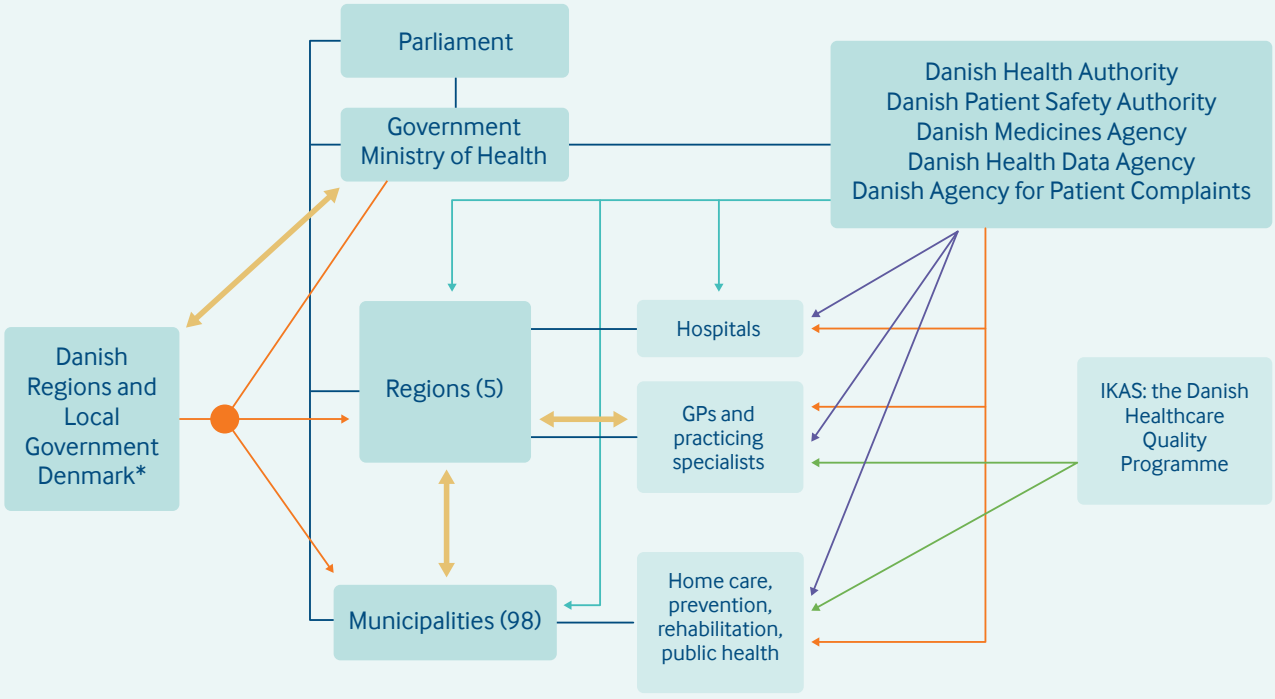
- The Health Data Authority, which handles data collection and infrastructure
- The Danish Agency for Patient Complaints.

National authorities also have important roles in planning the location of specialist services, approving regional hospital plans, and approving mandatory health agreements between regions and municipalities to coordinate service delivery. In addition, the Health Data Agency provides online access to benchmarking data related to service, quality, and number of treatments performed, as well as data from clinical registries and information about pharmaceutical prices and reimbursement levels.[1]

Danish Regions and Local Government Denmark negotiate economic agreements on behalf of regions and municipalities and participate in monitoring agreed-upon performance targets. They also play important roles in collecting and sharing knowledge to facilitate development and implementation.

Organized patient groups engage in policymaking at the national, regional, and municipal levels.

ORGANIZATION OF THE HEALTH SYSTEM IN DENMARK



* Danish Regions and LGD are the interest organizations for regions and municipalities. They negotiate agreements on their behalf and participate in monitoring of jointly established performance targets.

** This is being phased out for GPs and specialists and is voluntary for municipalities.

Source: K. Vrangbaek, University of Copenhagen, 2019.

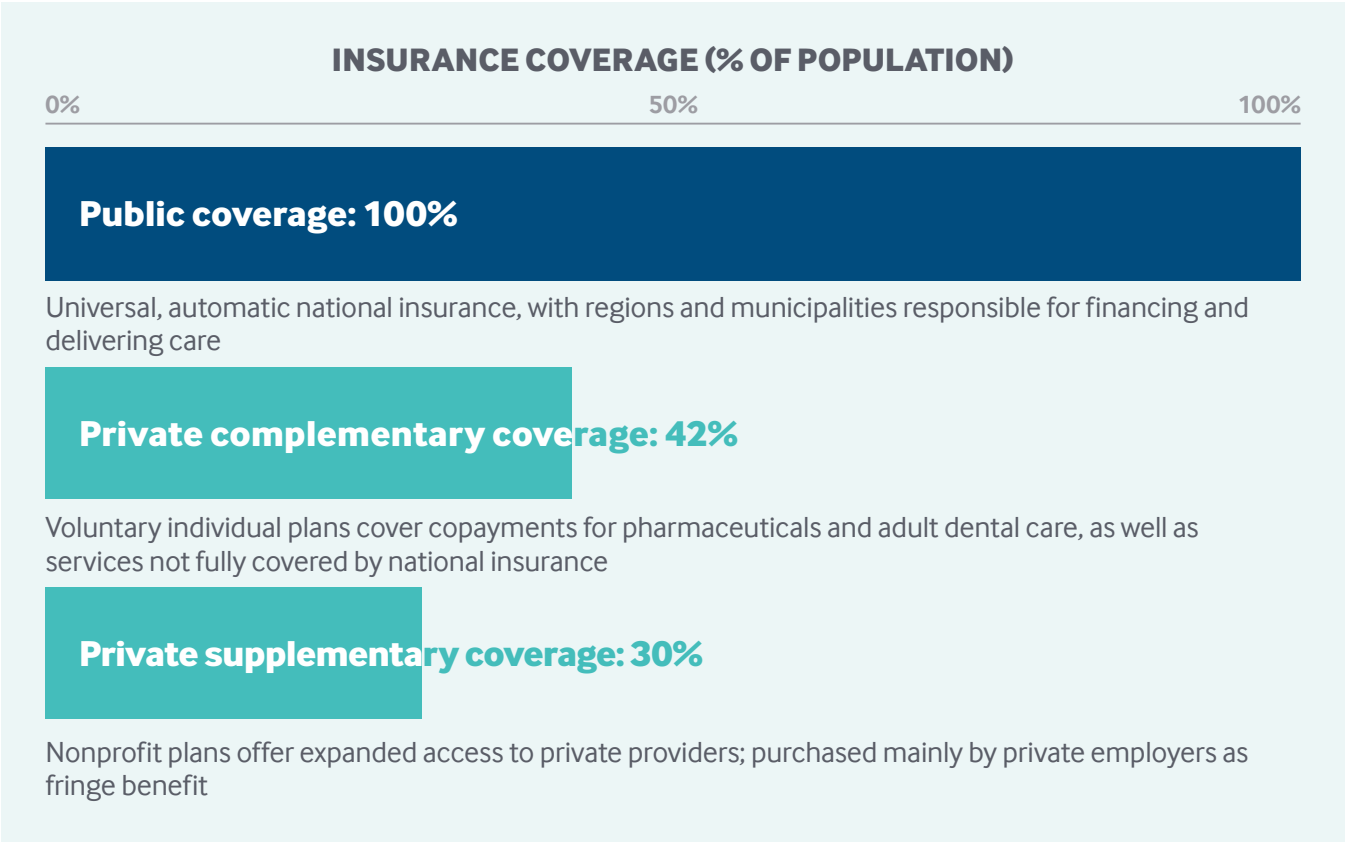
Role of public health insurance: Public expenditures accounted for 84 percent of total health spending in 2016, representing 8.7 percent of GDP. Overall, health care expenditures represented 10.4 percent of GDP.[2] It should be noted that Denmark includes long-term care services in its accounting for total health care spending, unlike other Organisation for Economic Co-operation and Development (OECD) countries.[3]

Health care is financed mainly through a progressive national income tax. The national government allocates heath care funding to regions and municipalities, mostly as block grants, with amounts adjusted for demographic and social differences. These grants finance 77 percent of regional health functions. A minor portion of state funding for regional and municipal services is tied to specific priority areas and targets, usually defined in the annual economic agreements between the national government and the municipalities or regions. Current targets incentivize a continued transition from hospital-based care to primary care and home-based care. The remainder of financing for regional services comes from municipal activity-based payments, which are financed through a combination of municipal progressive income taxes and state block grants.

Role of private health insurance: Complementary voluntary health insurance, purchased on an individual basis, covers statutory copayments — mainly for pharmaceuticals and dental care — and services not fully covered by the state, such as physiotherapy. Some 2.45 million Danes (42%) have such coverage, which is provided almost exclusively by the nonprofit organization Danmark.[4]

In addition, nearly 1.69 million Danes (30%) hold supplementary insurance to gain expanded access to private providers, mostly for physiotherapy and minor elective surgeries.[5] Seven for-profit insurers sell policies, which are provided mainly through private employers as a fringe benefit, although some public-sector employees are also covered. Students, pensioners, the unemployed, and others outside the job market are generally not covered by supplementary insurance.

Private expenditures accounted for nearly 16 percent of health care spending in 2016.[6]



Services covered: The national, publicly financed health care system fully covers the following services:

- primary and preventive care
- specialist care
- hospital care, including inpatient prescription drugs
- mental health care
- long-term care
- dental services for children under age 18.

Outpatient prescription drugs, adult dental care, physiotherapy, and optometry services are partially covered through subsidies.

Home care is organized and financed by the municipalities. Municipalities also fully finance maternity care, preventive home visits for infants, and consultations for toddlers and preschoolers. Municipalities are also responsible for providing durable medical equipment for citizens with a permanent need. Hospice care is financed and delivered by the regions.

There is no nationally defined benefit package for health care. Decisions about levels of service and new medical treatments are made by the regions, within a framework of national laws, agreements, guidelines, and standards. Municipalities decide on the service level for most other welfare services, including social care, within a framework of national regulation. In practice, most evidence-based treatments are covered. These include fertility treatment (with some limitations) and necessary cosmetic surgery.

Cost-sharing and out-of-pocket spending: Cost-sharing is applied to adult dental care (coinsurance 35%–60%), outpatient prescriptions, temporary home care, residential long-term care, corrective lenses, and travel vaccinations. There is no cost-sharing for hospital care, primary care services, dental care for children under age 18, childhood immunizations, cancer screenings, maternity care, hospice care, or permanent home care. Only Danes who choose Group 2 insurance coverage owe a copayment when visiting a specialty physician.

Household out-of-pocket payments represented 13.7 percent of total health expenditures in 2016, covering mostly outpatient drugs, corrective lenses, hearing aids, dental care, and payments to private specialists and clinics outside the public referral scheme.[7]

Safety nets: Because most care is covered under public health insurance, there is limited need for safety nets. Danes receive subsidies for outpatient drugs, and there is a yearly out-of-pocket maximum for drugs (see table).[8,9] There are also subsidies for physiotherapy and adult dental care. In addition, the municipalities provide means-tested social assistance to older people for long-term care.

TYPICAL PATIENT COPAYMENTS AND SAFETY NETS

SERVICE	FEES PER ENCOUNTER/SERVICE	MAXIMUM OUT-OF-POCKET COSTS PER YEAR (SAFETY NET)
Primary care visit	None	N/A
Specialist consultation	Group 1 coverage: Zero with a general practitioner (GP) referral Group 2 coverage: Copayments vary; no referral from GP required	N/A
Hospitalization (per day or visit)	None	N/A
Inpatient drugs	None in public hospitals	N/A
Outpatient prescription drugs	Incrementally increasing subsidies determine how much Danes pay out-of-pocket for outpatient drugs:	• DKK 4,030 (USD 548) per year (all patients) • Terminally ill can apply for no cost-sharing/full coverage for one year • Additional variable assistance toward drug costs provided by municipalities

ANNUAL OUTPATIENT PRESCRIPTION DRUG EXPENDITURE	SUBSIDIES FOR ADULTS	SUBSIDIES FOR CHILDREN UP TO AGE 18
DKK 0–965 (USD 0–131)	0%	60%
DKK 965–1,595 (USD 131–217)	50%	60%
DKK 1,595–3,455 (USD 217–469)	75%	75%
DKK 3,455–4,030 (USD 469–548)	85%	85%
Above DKK 4,030 (USD 548)	100%	100%

How is the delivery system organized and how are providers paid?

Physician education and workforce: The number of physicians is regulated at the national level through limitations on the number of medical education training positions and the number of practicing physicians per region who can receive public funding. There are four medical schools, all public, offering medical studies lasting six years. None of them charge tuition fees.

In recent years, there has been a shortage of medical providers willing to set up general practices in rural areas. This has led to legislative changes that allow the regions to invite bids for practices or to run the practices as regional units. The regions have also undertaken other initiatives to address the shortage, such as developing programs to attract foreign doctors, providing clinic buildings for free, and allowing doctors to own several clinics. The state has also increased uptake at medical schools.

Primary care: Approximately 22 percent of doctors work in general practice. Almost all GPs are self-employed and are paid by the regions via capitation (about 30% of income) and fee-for-service (70% of income). Rates are set through national agreements with physician associations.

The average income for a GP was DKK 1.1 million (USD 149,500) in 2012, which is about the same as the average salary for senior hospital doctors (specialists).[10]

The practice structure is gradually shifting from solo to group practices, typically consisting of two-to-four GPs and two-to-three nurses.[11] Nurses are paid by the clinics and typically assist in the management of patients with chronic illnesses or complex needs, as well as blood sampling and vaccinations. Multispecialty clinics — with GPs, physiotherapists, and office-based specialists operating out of the same facilities but under separate management — have also been increasing in recent years.

As explained earlier, Danes have a choice of two public health insurance options. Patients who choose Group 1 coverage are required to register with a GP; they have free choice of any available local GP.

GPs cannot charge above the fee schedule for publicly funded patients in Group 1.

Outpatient specialist care: Outpatient specialist care is delivered at hospital-based ambulatory clinics by doctors employed by the hospital or by self-employed specialists in privately owned facilities.

Private self-employed specialists may work full-time or part-time. Part-timers may also work in the hospital sector, subject to codes of conduct, with their activity level monitored and the earnings in their private outpatient clinics limited by the regions.

Self-employed private providers are paid by the regions on a fee-for-service basis for public patients. Fees to private providers are set through national negotiations between regional representatives and physician associations, based on regional priorities and resource assessments.

Private specialists and hospitals also receive out-of-pocket payments from patients and reimbursements by private voluntary insurers. Fees for private (and Group 2) patients are set by the specialists, and may be above the fee schedule. Private practitioners and private hospitals may also receive patients referred from public-sector providers; they are paid for these services through specific agreements with the regions.

Administrative mechanisms for direct patient payments to providers: There is no out-of-pocket payment for primary or specialty care consultations and treatments for patients in Group 1, while drugs prescribed in clinics outside hospitals do incur a copayment when below the annual limit of DKK 4,030 (USD 548). Primary care physicians and specialists are paid directly by the regions when registering provision of services electronically. Group 2 patients make a copayment to supplement the automatic payment by regions.[11]

After-hours care: After-hours care is organized by the regions. The first line of contact is a regional after-hours telephone service with a GP (or a specialized nurse in the Copenhagen region) triaging to home visits or to an after-hours clinic, which is usually colocated with a hospital emergency department. Information on after-hours patient visits is routinely sent electronically to GPs.

GPs enter collective agreements with regions to provide after-hours care. The GPs are responsible for delivering after-hours care; however, individual GPs have flexibility in taking on more or less responsibility within this scheme, and they receive a higher fee-for-service payment for after-hours care than for normal care. Capitation does not apply to after-hours care.

There are also walk-in emergency units at larger hospitals.

Hospitals: Approximately 97 percent of hospital beds are publicly owned. Private hospitals are relatively small and mostly provide specialty care, such as elective surgery.

Regions decide on budgeting mechanisms, generally using a combination of a fixed budget and activity-based funding based on diagnosis-related groups (DRGs). The fixed budget makes up the bulk of the funding (although significant fluctuations occur among specialties and hospitals). DRG rates are calculated by the Ministry of Health at the national level, based on average costs.

Activity-based funding is usually combined with target levels of activity and declining rates of payment to control expenditures. This strategy succeeded in increasing activity and productivity by an average of 2.4 percent annually from 2003 to 2015.[12] Bundled payments are not yet used extensively, but experiments are being carried out in all five regions. Similarly, all five regions are experimenting with various types of value-based payment schemes for select hospitals and departments.

Hospital physicians are salaried and employed by regional hospitals. Physicians employed by public hospitals are not allowed to see private patients within the hospital. Patients can choose among public hospitals, and payment follows the patient to the receiving hospital if the facility is in another region.

Mental health care: Inpatient psychiatric care in public psychiatric hospitals and wards is fully covered by public health insurance without cost-sharing. Outpatient psychiatric care is provided in hospital clinics by salaried hospital staff or in private clinics by privately practicing specialists who receive most of their income through public fee-for-service funding.

Psychologists are employed in hospitals by municipalities, or operate in private practices. Community mental health services are provided by the municipalities, which can contract with a combination of private and public service providers; however, most providers are public and salaried.

Since 2014, Danes have had the right to a diagnostic psychiatric assessment within one month of referral. Treatment must be commenced within two months for less serious conditions and one month for more serious conditions. There are walk-in units for acute psychiatric care in all regions.

Long-term care and social supports: Responsibility for long-term and chronic care is shared between regional hospitals, GPs, and providers of municipal institutional and home-based services. Hospital-based ambulatory chronic care is financed in the same way as other hospital services and is provided to patients who have severe chronic care needs or require specialized rehabilitation services. GPs are responsible for ongoing medical follow-up for most people with chronic care needs, while the municipalities organize, fund, and deliver care and assisted living support at home or in municipal institutions, based on individual needs assessments.

Most municipal long-term care is provided at home, in line with a policy initiative to enable people to remain at home as long as possible. Municipal assisted-living support with ongoing visits is relatively extensive. However, a recent study showed that 46 percent of relatives have provided voluntary assistance to older relatives one-to-two times a week, mostly for shopping, cleaning, cooking, and other practical activities.[13] A minority (9%) of relatives also assist in personal care.

The proportion of citizens over age 75 who live in protected housing and nursing homes dropped from 15 percent to 13 percent between 2010 and 2015.[14] Home nursing is funded with a medical referral, but temporary home care may be subject to cost-sharing.

Municipalities organize markets to ensure access to both public and private home care providers (personal and practical care, such as cleaning and shopping), and patients may choose between public and private providers. While this system functions relatively well in most municipalities, it has been difficult to attract private providers to remote areas. A considerable number of the elderly choose private providers. Some municipalities also have contracted with private institutions for institutional care of older people, but more than 90 percent of residential care institutions (nursing homes) remain public.

Providers are paid directly by the municipalities, and no cash benefits are paid to patients. Public providers are employed by the municipalities. Most providers are public or private not-for-profit, and a few are private for-profit.[15]

Relatives of seriously ill individuals are allowed to take paid leaves of absence from their jobs for up to nine months. These can be incremental and may be divided among several relatives. A similar scheme exists for relatives of terminally ill patients who no longer receive treatment.

Hospices, which may be public or private, are organized by the regions and are fully funded by regions and municipalities. GPs or hospitals can refer terminally ill patients to hospice when no further treatment is possible. There is free choice of hospice with a referral.

What are the major strategies to ensure quality of care?

Quality improvement is a major priority area in health policy, as is reflected in the Danish Health Law.

The Danish Institute for Quality and Accreditation in Healthcare (IKAS) was instrumental in implementing accreditation in hospitals and in primary and municipal health care through the Danish Healthcare Quality Program.[16] The program, in operation between 2004 and 2015, was phased out for hospitals and replaced by a new system in which regions are responsible for developing schemes that enable them to meet eight national quality targets and related indicators. These targets have been decided in negotiated agreements between the state, the Danish Regions, and Local Government Denmark. Regional performance on the targets is monitored and published annually.[17] Accreditation for primary care is gradually being replaced by a system of collegial collaboration based on quality data. Accreditation is still available for municipal health services on a voluntary basis.

Other transparency efforts are underway. The Ministry of Health, the Ministry of Finance, and the Danish Regions regularly publish comparative-effectiveness (productivity) studies, which help regions and hospital managers benchmark individual hospital department performance.[18] Quality data for a number of treatment areas are also captured in clinical registries and made available to institutions (but not individual health providers at the hospital level) through the national online health portal, www.esundhed.dk.[19] In addition, patient experiences are collected through biannual national, regional, and local surveys.

To reduce variation in care quality, the Danish Health Authority has laid out standard treatment pathways, with priorities including chronic disease prevention and follow-up interventions. Pathways for 34 cancers have been in place since 2008, covering nearly all cancer patients. The Health Authority monitors the pathways and the speed with which patients are diagnosed and treated. National guidelines and reference programs also enforce the use of pathway programs and national clinical guidelines for all major disease types. The regions develop more specific practice guidelines for hospitals and other organizations, based on general national recommendations.

There are no explicit national economic incentives tied to quality, but all five regions are experimenting with such schemes by including indicators related to waiting times, adherence to guidelines, readmission rates, and patient satisfaction in the evaluation structure. In general, regions are obliged to act in the event of poor results. The Danish Health Authority can step in if regions fail to live up to standards.

Nursing homes and home care agencies are subject to quality inspections by the municipalities and by the Danish Patient Safety Authority. Results of municipal inspections are typically published online, while the authority publishes thematic overview reports on its risk-based inspections.

What is being done to reduce disparities?

Equity is a value in the Danish health care system, as in other Nordic welfare systems. This is evident in the key principle of equal and easy access in the Danish health law and, more broadly, as an underlying argument for universal, tax-financed health systems that provide coverage to all citizens largely free of charge. Equity is also a key focus for regional and municipal organizers of health and social care services. Nevertheless, some social and geographical differences in health remain.

One of the key mechanisms for ensuring geographical equity in health care is a scheme for systematic redistribution of tax revenues from affluent to less affluent municipalities based on sociodemographic parameters. Equity aims are also supported by various efforts to standardize treatment quality through pathway programs and mandatory publication of relevant indicators for comparison across geographical units. Finally, the implementation of nationwide free choice of hospitals and maximum waiting times for hospital diagnosis and treatment also pressures the regions to deliver fast and equitable access.

The Danish Health Agency regularly publishes reports on variations in health and health care access based on survey data, subdivided according to age, gender, education, employment, and geography (region).[20] The reports have prompted the formulation of municipal-level action plans and initiatives, including:

- Targeted interventions to promote smoking cessation
- Prohibition of the sale of strong alcohol to young people
- Establishment of anti-alcohol policies in all educational institutions
- Further encouragement of municipal disease-prevention activities, such as through increased municipal cofinancing of hospitals, which creates economic incentives for municipalities to keep citizens healthy and out of the hospital
- Improved psychiatric care
- A mapping of health profiles in all municipalities, to be used as a tool for targeting municipal disease-prevention and health-promotion activities
- Various projects and special funding opportunities, for example, those focusing on the health of socially disadvantaged groups such as the immigrants and ethnic minorities.

What is being done to promote delivery system integration and care coordination?

Mandatory health agreements between the municipalities and regions related to coordination of care address a number of topics related to admission and discharge from hospitals, rehabilitation, prevention, psychiatric care, information technology (IT) support systems, and formal progress targets. Agreements are formalized for municipal and regional councils at least once per four-year election term, and generally take the form of shared standards to guide improvements in different phases of a patient's journey; these agreements must be approved by the Danish Health Authority. The degree to which the regions and municipalities succeed in reaching agreed-on goals is measured by national indicators published online.[21]

The agreements are partially supported by IT systems with information that is shared among caregivers. All GPs use electronic information systems as a conduit for discharge letters, electronic referrals, and prescriptions. In addition, all health care personnel have access to a shared database of prescriptions, known as the shared medical card.

The national indicators are also important in a new (2019) national scheme for allocation of funding from the state to the regions. The scheme incentivizes further transition from hospital care to primary and home-based care and further development of digitally supported and integrated care by making part of the national funding contingent upon five general criteria:

- Fewer hospital admissions per citizen
- Less in-hospital treatment for chronic care patients
- Fewer unnecessary readmissions within 30 days
- Increased use of telemedicine
- Better integration of IT across regional and municipal sectors.

Regions and municipalities have implemented various measures to promote care integration. Examples include:

- The use of outreach teams from hospitals conducting follow-up home visits
- Training programs for nursing and care staff
- The establishment of municipal units located within hospitals to facilitate communication, particularly in regard to discharge
- Shared municipal and hospital nurses
- The use of general practitioner practice coordinators.

Many coordination initiatives place an emphasis on people with chronic care needs, multiple morbidities, or frailty resulting from aging or mental health conditions.[22] The municipalities are in charge of a range of services, including social care, elder

care, and employment services; most are currently working on models for better integration of these services, such as joint administration with shared budgets and formalized communication procedures.

Practices increasingly employ specialized nurses, and several municipalities and regions have set up joint multispecialty facilities, commonly called health houses. Models vary, but often include GPs, practicing specialists, and physiotherapists, among others. The system of enlistment with a particular GP serves to develop long-standing relationships and to strengthen the role of GPs as coordinators of care for patients based on a comprehensive view of their patients' individual needs regarding prevention and care.

What is the status of electronic health records?

IT is used at all levels of the health system as part of a national strategy supported by the National Agency for Health IT. Each of the five regions uses electronic health record (EHR) systems for hospitals, with adherence to national standards for compatibility. All citizens in Denmark have a unique electronic personal identifier that is used in all public registries, including health databases. The government has implemented an electronic medical card storing encoded information about each patient's prescriptions and medication use; this information is accessible by the patient and all relevant health professionals.

General practitioners also have access to an online medical handbook with updated information on diagnosis and treatment recommendations. Two regions are currently implementing a comprehensive new EHR and data capture system developed by EPIC. While the initial implementation has been problematic, it is expected to provide benefits in the long run. The three other regions are using a system developed by Systematic. Shared standards facilitate communication between the two IT systems at the general level, but with a number of challenges at the detailed clinical level.

The national health information portal, Sundhed.dk, offers differentiated access for health staff and the wider public.[23] It provides general information on health and treatment options and access to individuals' own medical records and history. For professionals, the site serves as an entry to medical handbooks, scientific articles, treatment guidelines, hospital waiting times, treatments offered, and patients' laboratory test results. The portal also serves as a communication platform for referral, discharge, and prescription information among primary care providers, regions, hospitals, and pharmacies.

How are costs contained?

The overall framework for controlling health care expenditures is outlined in a budget law, which sets budgets for regions and municipalities and specifies automatic sanctions if budgets are exceeded. The budget law is supplemented by annual agreements between regional, municipal, and state governments to coordinate policy initiatives aimed at limiting spending, including direct controls of supply.

The performance of the regions is monitored in terms of activity and a number of quality measures. The results are published and form a central part of the governance relations between state and regions. As of 2019, part of the regional funding is dependent on the regions addressing specific criteria related to coordination and integration of care. In addition, a minor portion of the funding will be withheld and redistributed to technology development projects. The aim is to pressure the regions to further increase productivity.

At the regional level, hospital cost control includes a combination of global budgets and activity-related incentives (see "Hospitals").

Inpatient pharmaceutical expenditures are controlled through national guidelines and clinical monitoring combined with collective purchasing. The purchase of hospital medicines takes place through tendering and price negotiations by the joint regional organization Amgros.

A new regional medicines council was established in 2017 to provide information to Amgros and other decision-makers on the cost-effectiveness of new pharmaceuticals. The council evaluates the clinical effectiveness of new pharmaceuticals and provides input to Amgros, which negotiates prices with providers of pharmaceutical products. The ensuing joint evaluation of effectiveness and costs leads to a decision on whether or not to recommend that regions adopt the drug as standard treatment. The council has finished the evaluation of 41 applications for new drugs or changes in the use of drugs since 2017. In 25 cases, the council recommended the drug as a possible standard treatment in regional hospitals; 13 requests

were rejected; and for three drugs, the recommendation was to use the drug as standard treatment for some patient groups but not for others.

In September 2018, the Danish government signed an agreement with the Norwegian government to facilitate joint tenders for hospital drugs and information-sharing about new pharmaceuticals.[24] The collaboration with Norway also aims to increase access to generic pharmaceuticals in the two markets.

Finally, in a 2019 legislative proposal, the government has announced plans to introduce a new external reference pricing system for drugs that are outside the agreement with the pharmaceutical companies.[28] Reference prices from nine European countries will be used to calculate the maximum list price in Denmark. This scheme supplements the existing agreement with the Danish Association of the Pharmaceutical Industry (Lif), which applies a decrease of 10 percent to the list prices of hospital drugs from 2016 to 2019.[25]

Policies to control outpatient pharmaceutical expenditures include generic substitution, prescribing guidelines, and assessments by the regions of prescribing behavior deviations. Pharmaceutical companies report a monthly price list to the Danish Health Authority, and pharmacies are obliged to choose the cheapest alternative with the same active ingredient, unless a specific drug is prescribed. Patients may choose more expensive drugs, but they have to pay the difference.

Collective agreements with general practitioners and specialists include various clauses about rate reductions if overall expenditures exceed given levels. Regions also monitor the number and type of consultations and may intervene if levels deviate significantly from the average.

Health technology assessments are developed within European Union networks and at the regional level for hospital-level procedures and technology decisions. These assessments, as well as cost-effectiveness information, guide decision-making on new treatments and guidelines.

Regions may enter into contracts with private providers to deliver diagnostic and curative procedures. Prices for those services are negotiated between regions and private providers and can be lower than rates in the public sector.

Together, these measures have been relatively successful in controlling expenditures and driving up activity levels. The average annual productivity in the hospital sector increased by 2.3 percent from 2003 to 2016. During the same period, standardized hospital mortality rates declined and high patient satisfaction rates were maintained.[26,27]

What major innovations and reforms have recently been introduced?

- A 2018 agreement with Norway will facilitate joint tenders for hospital drugs and information-sharing about new pharmaceuticals (see "How are costs contained?").
- A new external reference pricing system for drugs will be implemented in 2020 (see "How are costs contained?").
- The central government and the regions have entered an agreement to restructure the financing of the regions. The previous requirement of an annual 2 percent productivity increase for hospitals will be replaced by a funding scheme that holds regions accountable for addressing specific criteria related to coordination and integration of care. In addition, a minor portion of funding will be redistributed to technology development projects.

REFERENCES

1. See http://www.esundhed.dk/sundhedsaktivitet/sundhedsaftaler/Sider/Sundhedsaftaler.aspx.
2. Organisation for Economic Co-operation and Development, *OECD Health Statistics 2017*, http://www.oecd.org/els/health-systems/health-data.htm.
3. J. Søgaard, *How High Are Health Expenditures in Denmark? Report for Danish Regions* (2014), http://www.regioner.dk/media/2981/2014-hvor-hoeje-er-sundhedsudgifterne-i-danmark.pdf; accessed Oct. 3, 2014.
4. Health Insurance Denmark, *Annual Report 2017*, https://www.sygeforsikring.dk/sites/default/files/2018-04/2017_aarsrapport.pdf.
5. https://www.forsikringogpension.dk/statistik/sundhedsforsikring; accessed Nov. 2018); Organisation for Economic Co-operation and Development, OECD.Stat (database), http://www.oecd.org/els/health-systems/health-data.htm.; accessed Dec. 14, 2018.
6. Organisation for Economic Co-operation and Development, OECD.Stat (database). DOI: 10.1787/data-00285-en; accessed July 2, 2015.
7. Organisation for Economic Co-operation and Development, OECD.Stat (database), http://www.oecd.org/els/health-systems/health-data.htm.; accessed Dec. 14, 2018.
8. Danish Medicines Agency, https://laegemiddelstyrelsen.dk/da/tilskud/beregn-dit-tilskud/tilskudsgraenser.
9. Please note that throughout this profile, all figures in U.S. dollars (USD) were converted from Danish krone (DKK) at a rate of DKK 7.36 per USD, the purchasing power parity conversion rate for GDP in 2017 reported by OECD (2018) for Denmark.
10. PLO (Association for General Practitioners), Faktark 2017 (2017), https://www.laeger.dk/sites/default/files/plo_faktaark_2017_oktober_2.pdf.
11. Danish Regions, Organization of General Practice (2007).
12. Danish Regions website, "Fakta og tal om sundhedsvæsenet"; accessed April 26, 2018, http://www.regioner.dk/sundhed/kvalitet-og-styring/fakta-og-tal-om-sundhedsvaesenet.
13. Ældresagen 2017. "Undersøgelse om pårørende Juli 2017," file:///Users/zcm397/Downloads/aeldresagen-paaroerende-2017-voxmeter.pdf.
14. *Nyt Fra Danmarks Statistik*, Jan. 11, 2016, https://www.dst.dk/Site/Dst/Udgivelser/nyt/GetPdf.aspx?cid=20392.
15. Aeldresagen, https://www.aeldresagen.dk/viden-og-raadgivning/hjaelp-og-stoette/plejebolig-og-plejehjem.
16. Danish Healthcare Quality Program (DDKM), http://www.ikas.dk.
17. Ministry of Health, *Increased Focus on Good Results at Hospitals (2013),* https://www.sum.dk/Aktuelt/Publikationer/Oeget-fokus-paa-gode-resultater-og-bedste-praksis-paa-sygehusene-okt-2012.aspx.
18. Danish Regions website, "Fakta og tal om sundhedsvæsenet"; http://www.regioner.dk/sundhed/kvalitet-og-styring/fakta-og-tal-om-sundhedsvaesenet; accessed April 26, 2018,.
19. See http://www.esundhed.dk/Sider/Forside.aspx.
20. Danish Health Authority, *National Health Profile* (Jan. 2018), https://www.sst.dk/da/udgivelser/2018/~/media/73EADC242CDB46BD8ABF9DE895A6132C.ashx.
21. See http://www.esundhed.dk/Sider/Forside.aspx.
22. Økonomi og Indenrigsministeriet, *Evaluation of the Structural Reform* (2013), https://oim.dk/media/15185/evaluering-af-kommunalreformen.pdf.
23. See https://www.sundhed.dk.
24. http://www.sundhedsministeriet.dk/Aktuelt/Nyheder/Sundhedspolitik/2018/September/Ny-medicinaftale-mellem-Danmark-og-Norge.aspx.
25. https://www.lif.dk/SiteCollectionDocuments/Prisloftaftaler/Underskrevet%20aftale%202016%202019.pdf.
26. Danish Regions, Ministry of Health and Ministry Finance, *Løbende offentliggørelse af produktivitet i sygehussektoren,* https://www.sum.dk/Aktuelt/Publikationer/~/media/Filer%20-%20Publikationer_i_pdf/2018/Produktivitet-13-delrapport-feb-2018/Rapport-13-delrapport-feb-2018.pdf.
27. Ministry of Health, https://sundhedsdatastyrelsen.dk/da/tal-og-analyser/analyser-og-rapporter/sundhedsvaesenet/synlige-resultater.

The English Health Care System

Ruth Thorlby
Assistant Director, Policy, The Health Foundation

All English residents are automatically entitled to free public health care through the National Health Service, including hospital, physician, and mental health care. The National Health Service budget is funded primarily through general taxation. A government agency, NHS England, oversees and allocates funds to 191 Clinical Commissioning Groups, which govern and pay for care delivery at the local level. Approximately 10.5 percent of the United Kingdom's population carries voluntary supplemental insurance to gain more rapid access to elective care.[1]

How does universal health coverage work?

Health coverage in England has been universal since the creation of the National Health Service (NHS) in 1948. The NHS was set up under the National Health Service Act of 1946, based on the recommendations of a report to Parliament by Sir William Beveridge in 1942. The Beveridge Report outlined free health care as one aspect of wider welfare reform designed to eliminate unemployment, poverty, and illness, and to improve education. Under the 1946 Act, the Minister of Health had a duty to provide a comprehensive, free health service, replacing voluntary insurance and out-of-pocket payments.[2]

Currently, all those "ordinarily resident" in England are automatically entitled to NHS care, still largely free at the point of use, as are nonresidents with a European Health Insurance Card. For other people, such as non-European visitors or undocumented immigrants, only treatment in an emergency department and for certain infectious diseases is free.[3] Rights for those eligible for NHS care are summarized in the NHS Constitution; they include the right to access care without discrimination and within certain time limits for certain categories, such as emergency and planned hospital care.[4]

Role of government: Responsibility for health legislation and general policy in England rests with Parliament, the Secretary of State for Health, and the Department of Health. Day-to-day responsibility for the NHS lies with NHS England, an arm's-length, government-funded body run separately from the Department of Health.[5] Its responsibilities include:

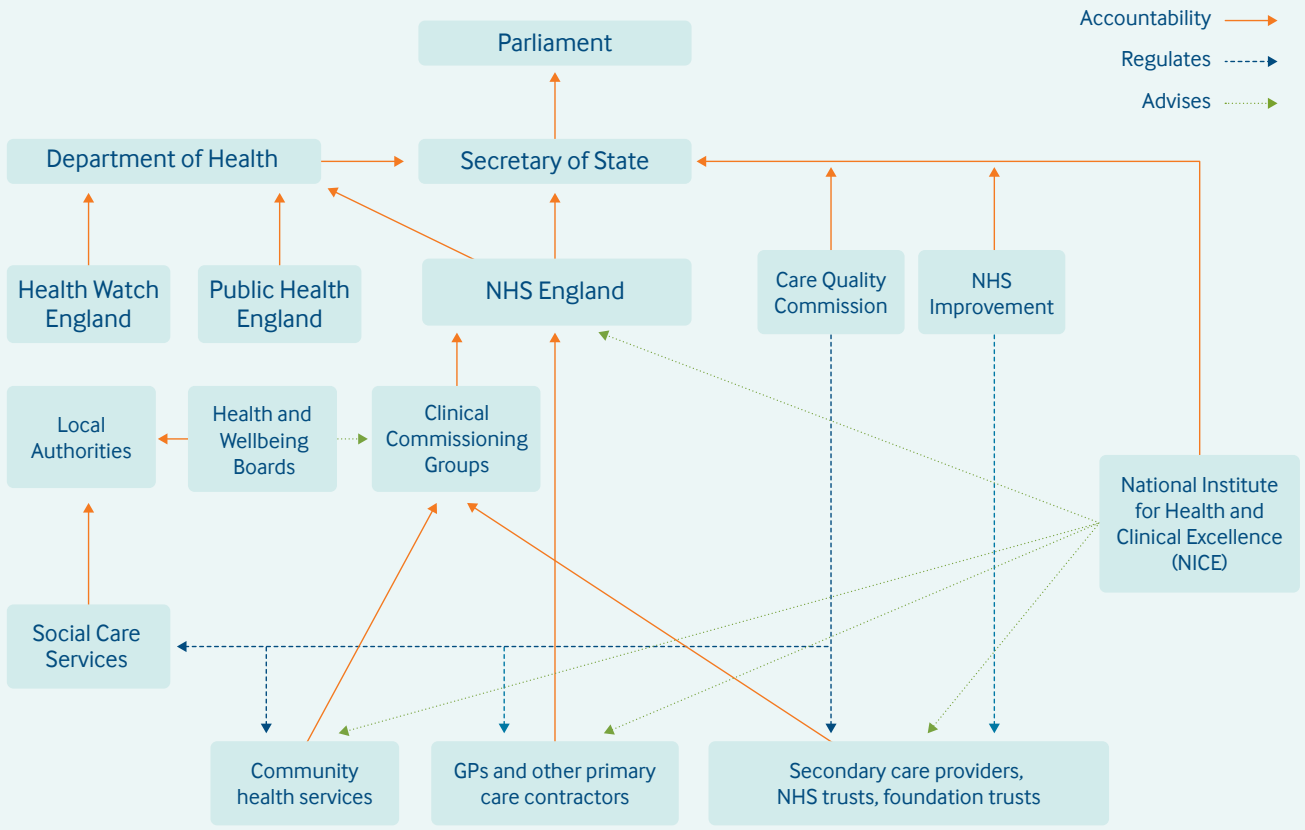
- managing the NHS budget
- overseeing 191 local Clinical Commissioning Groups (CCGs), which are groups of local general practitioners (GPs) who plan, commission, and pay for most of the hospital and community care service in their areas
- directly commissioning certain types of care, including primary care in some areas, dental care, treatments for rare conditions, and some public health services (such as immunizations)[6]
- working toward objectives in the annual mandate from the Secretary of State for Health, which include both efficiency and health goals
- setting the strategic direction of health information technology, including the development of online services to book appointments and the setting of quality standards for electronic medical record-keeping and prescribing.

The government owns the hospitals and providers of NHS care, including ambulance services, mental health services, district nursing, and other community services. These providers are called NHS trusts.

Other important public agencies involved in health care governance include:

- NHS Improvement, which licenses all providers of NHS-funded care and may investigate potential breaches of NHS cooperation and competition rules, as well as mergers involving NHS foundation trusts
- the Care Quality Commission, which ensures basic standards of safety and quality by registering providers and monitoring the achievement of care standards
- the National Institute for Health and Care Excellence, which sets guidelines for clinically effective treatments and appraises new health technologies for their efficacy and cost-effectiveness
- Health Education England, which plans the NHS workforce.

ORGANIZATION OF THE HEALTH SYSTEM IN ENGLAND

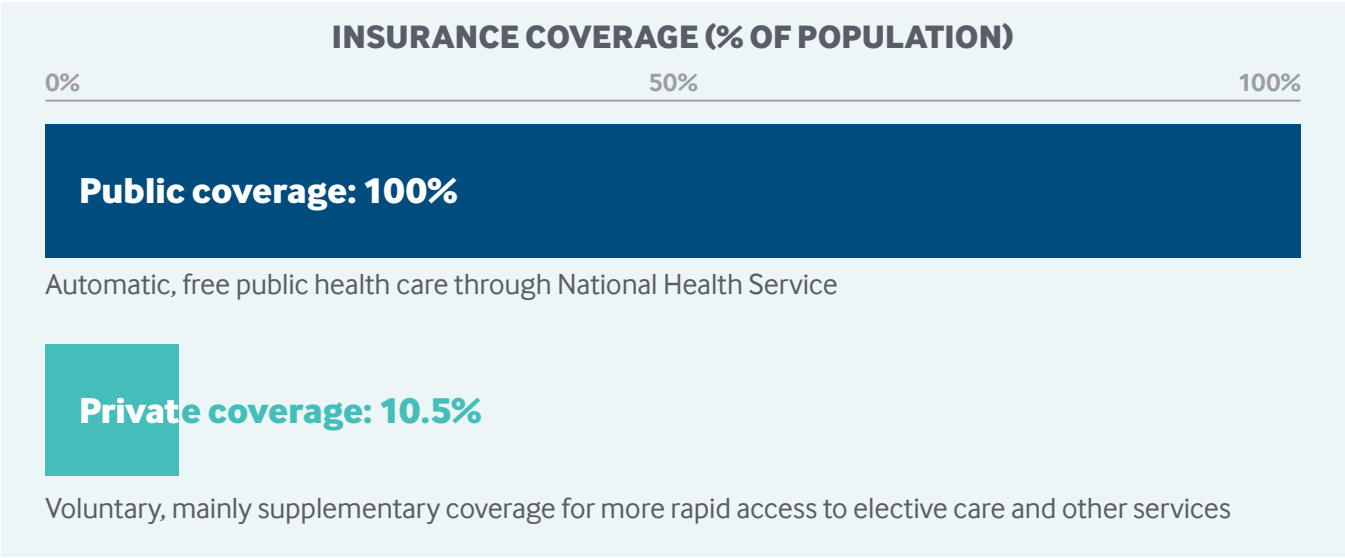


Source: R. Thorlby and S. Arora, Nuffield Trust, 2014.

Role of public health insurance: In 2016, the U.K. spent 9.8 percent of GDP on health care; public expenditures, mainly related to the NHS, accounted for 79.4 percent of this amount.[7] The majority of NHS funding comes from general taxes, and a smaller proportion (20%) comes from national insurance, which is a payroll tax paid by employees and employers. The NHS also receives income from copayments and people using NHS services as private patients.

Role of private health insurance: In 2015, an estimated 10.5 percent of the U.K. population had private voluntary health insurance, with nearly 4 million policies held at the beginning of 2015.[8]In 2016, voluntary private health insurance accounted for 3.3 percent of total health expenditures.[9]

Some private insurance is offered by employers, but individuals can also purchase policies. Private insurance offers more rapid access to care, choice of specialists, and better amenities, especially for elective hospital procedures; however, most policies exclude mental health, maternity services, emergency care, and general practice.[10] According to a 2014 investigation, four insurers account for 87.5 percent of the private insurance market, with small companies making up the rest.[11]



Services covered: The precise scope of services covered by the NHS is not defined in statute or by legislation, and there is no absolute right for patients to receive a particular treatment. However, the statutory duty of the Secretary for Health is to ensure comprehensive coverage.

In practice, the NHS provides or pays for the following:

- preventive services, including screenings, immunizations, and vaccination programs
- inpatient and outpatient hospital care
- maternity care
- physician services
- inpatient and outpatient drugs
- clinically necessary dental care
- some eye care
- mental health care, including some care for those with learning disabilities
- palliative care
- some long-term care
- rehabilitation, including physiotherapy (such as after-stroke care)
- home visits by community-based nurses
- wheelchairs, hearing aids, and other assistive devices for those assessed as needing them.

The volume and scope of these services are generally a matter for local decision-making by CCGs.

Cost-sharing and out-of-pocket spending: The NHS has very limited cost-sharing arrangements for publicly covered services. Services are free at the point of use for outpatient and inpatient hospital services. Out-of-pocket payments for GP visits apply only to certain services, such as the provision of certificates for insurance purposes and travel vaccinations. NHS screening and vaccination programs are not subject to copayments.

Outpatient prescription drugs are subject to a copayment of GBP 8.80 (USD 12.50) per prescription. Drugs prescribed in NHS hospitals are free.

NHS dentistry services are subject to copayments of up to GBP 256.50 (USD 365.00) per course of treatment.[12] These charges are set nationally by the Department of Health.

Out-of-pocket health expenditures by households accounted for 15 percent of total expenditures in the U.K. in 2016. Also in 2016, the largest portion of out-of-pocket spending (37%) was on long-term care services, including residential care, followed by 35 percent for medical goods (including pharmaceuticals).[13]

Safety nets: In 2016, 89 percent of prescriptions in England were dispensed free of charge.[14] People who are exempt from prescription drug copayments include:

- children age 15 and under
- full-time students ages 16 to 18
- people age 60 or older
- people with low incomes
- pregnant women and women who have given birth in the past 12 months
- people with cancer and certain other long-term conditions or disabilities.

Patients who need large amounts of prescription drugs can buy prepayment certificates costing GBP 29.10 (USD 41.40) for three months and GBP 104 (USD 148) for 12 months. Users incur no further charges for the duration of the certificate, regardless of how many prescriptions they need.

Other safety nets include assistance with dental and vision care. Young people, students, pregnant and recently pregnant women, prisoners, and those with low incomes are not liable for dental copayments. Vision tests are free for young people, those over age 60, and people with low incomes. In addition, young people and those with low incomes can obtain financial support to meet the cost of corrective lenses.

Transportation costs to and from provider sites also are covered for people who qualify for the NHS Low Income Scheme.

TYPICAL PATIENT COPAYMENTS AND SAFETY NETS

SERVICE	FEES PER ENCOUNTER/SERVICE	MAXIMUM OUT-OF-POCKET COSTS AND SAFETY NETS
Primary care visit	None	N/A
Specialist consultation	None	N/A
Hospitalization (per day or visit)	None	N/A
Prescription drugs (outpatient)	GBP 8.80 (USD 12.50) per prescription	No copayment for young children, older adults, low-income people, and others Maximum out of pocket: GBP 104 (USD 148) per year when annual prescription prepayment scheme is purchased, or GBP 29.10 (USD 41.40) every three months for quarterly scheme

How is the delivery system organized and how are providers paid?

Physician education and workforce: There is a growing shortage of doctors, affecting primary care and certain specialties. In 2016, the government promised an additional 5,000 GPs by 2021, including new trainees, overseas recruits, and physicians returning to practice.[15] Financial incentives have been made available to trainees and returnees to attract doctors to areas where there are shortages, including rural and urban areas.

The government regulates the number of university slots for undergraduate medical and dentist degrees: In 2018–2019, a total of 6,700 places were available for medical degrees across public universities in England.[16] This is 500 more slots than were available in 2017–2018. Over time, the government has promised to expand the number of undergraduate training slots by 25 percent to address the workforce shortage.

Undergraduate degrees are financed through student fees and government subsidies. The remainder of medical training (four to six years) is funded by government.

Primary care: Primary care is delivered mainly through GPs, who act as gatekeepers for secondary care. General practices are normally patients' first point of contact, and people are required to register with a local practice of their choice; however, choice is effectively limited because many practices are full and do not accept new patients. In some areas, walk-in centers offer primary care services, for which registration is not required.

In September 2017, there were approximately 34,000 GPs (full-time equivalents) in nearly 7,400 practices, with an average of about 8,000 patients per practice and 1,400 patients per GP.[17] Eleven percent of practices were solo practices in 2017, while 46 percent had five or more GPs.

Most GPs (59.4 percent) are private contractors (self-employed). The proportion of GPs employed in practices or on a salaried basis as locums (standing in when other GPs are unavailable) is increasing and is currently around 22 percent.

Most (69%) of practices operate under General Medical Services contracts, negotiated between the British Medical Association (representing doctors) and government. Physician payment is about 60 percent capitation for essential services, about 15 percent fee-for-service payments for optional additional services (such as vaccines for at-risk populations), and about 10 percent performance-related payments.[18] Capitation is adjusted for age and gender, local levels of morbidity and mortality, the number of patients in nursing and residential homes, patient list turnover, and a market-forces factor for staff costs as compared with those of other practices. Performance bonuses are given mainly on evidence-based clinical interventions and care coordination for chronic illnesses.

General practice is undergoing a structural change, from single-handed corner shops to networked practices, including larger organizations using multidisciplinary teams of specialists, pharmacists, and social workers.[19] The average income for GPs (contracted and salaried) in England was GBP 92,500 (USD 131,579) before tax in 2015–2016, with GPs earning 82 percent of what specialists earn.[20]

Most general practices employ other professionals on salaries, such as nurses, whose duties include managing patients with long-term conditions, and providing minor treatments. In December 2017, there were about 15,800 nurses working in general practice.[21]

Outpatient specialist care: Nearly all specialists are salaried employees of NHS hospitals. Salaries are agreed on as part of a national contract between the Department of Health and the British Medical Association.

As of the end of 2017, there were approximately 45,800 hospital specialists and 52,800 hospital doctors in training.[22]

CCGs pay hospitals for outpatient consultations at nationally determined rates. Specialists are free to engage in private practice within specially designated wards in NHS or private hospitals. In 2006, an estimated 55 percent of doctors performed private work, a proportion that is declining as the earnings gap between public and private practice narrows.[23]

Patients are able to choose which hospital to visit, and the government has introduced the right to choose a particular specialist within a hospital. Most outpatient specialist consultations are carried out in hospitals, although a small proportion of consultations take place in general practices.

Administrative mechanisms for direct patient payments to providers: U.K. residents do not pay for physician services, which are all free at the point of use. The bulk of general practices are reimbursed monthly by NHS England for the services they deliver on the basis of data extracted automatically from practices' electronic records. Some payments may require practices to enter data manually on the number of patients screened or treated for "enhanced services" that qualify for additional payments, such as diagnosis and support for patients with dementia. These data are collated and validated by NHS England.

After-hours care: Since 2004, GPs are no longer required to personally provide after-hours care to their patients; however, GPs must ensure that adequate arrangements for after-hours care are in place. In practice, this means that CCGs contract mainly with GP cooperatives and private companies for after-hours care, both of which usually pay GPs on a per-session basis.

Providers are expected to send electronic discharge summaries to the patient's usual GP within 24 hours of using an emergency service.

Serious emergencies are handled by hospital emergency departments. In some areas, less-serious cases are seen in urgent care centers or minor-injury units, which are staffed in a variety of ways and include both nurse-led and GP-led centers (paid per session). These are generally NHS-run and can be free-standing or attached to a hospital.

Telephone advice is available on a 24-hour basis through NHS 111 for those with an urgent but not life-threatening condition. Callers are able to speak to a clinician, if appropriate, after triage.

Hospitals: Publicly owned hospitals are organized either as NHS trusts (currently 64) directly accountable to the Department of Health or as foundation trusts (currently 142) regulated by NHS Improvement.[24] Foundation trusts have more freedom to borrow and invest and have local people and staff involved in governance.

All public hospitals contract with local CCGs to provide services. They are reimbursed mainly at nationally determined diagnosis-related group (DRG) rates, which include medical staff costs. DRG payments account for about 60 percent of hospital income, with the remainder coming from activities not covered by DRGs, such as mental health, education, and research and training funds.[25] For some services, such as community services, payment is made for the overall service. Bundled payments (such as for the total annual cost of care per diabetic patient) are being developed at the local level but are not yet in widespread use. There is no cap on hospital incomes.

Responsibility for setting DRG rates is shared between NHS England and NHS Improvement. Some DRG rates are set to incentivize best practices, such as the use of day-case surgery (same-day surgery) when appropriate.

There are an estimated 515 private hospitals offering health care services in the U.K., a mixture of for-profit and nonprofit.

There are no comprehensive public data on the total number of patients treated in private hospitals, but of the 285 hospitals that submitted data in 2017, 735,522 patients received treatment. By comparison, more than 8.5 million nonurgent patients were treated by the NHS that year.[26]

Private hospitals offer a range of services, including treatments either unavailable in the NHS or subject to long waiting times, such as bariatric surgery and fertility treatment, but generally do not have emergency, trauma, or intensive-care facilities.[27] Private providers must be registered with the Care Quality Commission and with NHS Improvement, but their charges to private patients are not regulated, and there are no public subsidies. Although the volume of care purchased from private providers by the NHS has increased recently in areas outside of mental health, NHS use of private providers remains low: 7.6 percent of overall spending by CCGs on hospital services in 2015–2016.[28]

Mental health care: Mental health care is an integral part of the NHS and covers a full range of services. Less-serious illnesses — mild depressive and anxiety disorders, for example — are usually treated by GPs. Those requiring more advanced treatment, including inpatient care, are treated by specialist mental health trusts. Some of these services are provided by community-based practitioners. About a quarter of NHS-funded, hospital-based mental health services are provided by the private sector.

Over the past decade, policy has focused on expanding services for mild-to-moderate adult mental health problems, such as depression and anxiety, through the Increasing Access to Psychological Therapies program, which integrates mental health into primary care. In 2017–2018, 550,479 people referred to the program completed courses of therapy, lasting an average of six weeks.[29]

Long-term care and social supports: The NHS pays for long-term care (at home or in residential facilities) for people with care needs arising from illness, disability, or accident, including at the end of life. About 135,000 people were receiving this form of care at the end of 2018.[30]

All other long-term services and supports are paid either out of pocket or by local authorities. Local authorities are legally obliged to assess the needs of all people who request these services. Unlike NHS services, however, locally funded social care is not typically free at the point of use, except for certain services (such as time-limited rehabilitation services for people recovering from illnesses or injuries, the provision of some equipment, and home modifications).

To receive regular financial support for home care, nursing care, and residential care, individuals need to pass a needs and a means test. Full local authority support for residential care, for example, is available only to those with high care needs and less than GBP 14,250 (USD 20,270) in assets, with a sliding scale discount applied to assets up to GBP 23,250 (USD 33,072). There is a national framework for assessing need, but local authorities are free to set eligibility thresholds, which have become progressively more restricted over the past decade.[31] Local authorities fund long-term care from local taxes and

grants from central government. Central government funding for local authorities has fallen an estimated 49 percent in real terms between 2010–2011 and 2017–2018.[32]

Those who qualify for local authority funding are liable for copayments, with some people contributing almost all of their assessed income, including pensions. Funding can be managed by the local authority (paying providers directly), or people can receive direct payments to purchase their own care, with the supervision of the local authority. In 2016–2017, GBP 15.0 billion (USD 21.3 billion) was spent on locally funded long-term care in England, of which GBP 1.8 billion (USD 2.6 billion) was spend on direct payments. Nearly 870,000 people received services in a nursing home, in a residential home, or at home. Community-based services were the most common: 75 percent of people received services in their home.[33]

Some additional allowances paid to users and caregivers are exempt from means testing, such as an attendance allowance worth a maximum of GBP 82.30 (USD 117.00) a week. An estimated 8 percent of the U.K. population are informal carers (5.4 million people), 33 percent of whom are caring for a parent outside their own household.[34]

In 2017, the private sector (for-profit and nonprofit) provided 78 percent of residential care places for older people and the physically disabled in the U.K., and 86 percent of nursing home places.[35]

The NHS provides end-of-life palliative care at patients' homes, in hospices (usually run by charitable organizations), in care homes, or in hospitals.

Separate government funding is available for working-age people with disabilities.

What are the major strategies to ensure quality of care?

The Care Quality Commission regulates all health and adult social care in England. All providers, including institutions, individual partnerships, and sole practitioners, must be registered with the commission, which monitors performance using nationally set quality standards and investigates individual providers when concerns are raised by patients and others. It rates hospitals' inspection results and can close down poorly performing services. The monitoring process includes results of annual national patient experience surveys for hospital, mental health, community, primary care, and ambulance services.

The National Institute for Health and Care Excellence develops quality standards, guidance, and guidelines for a large range of clinical conditions, safe staffing levels, technologies, medicine handling, antimicrobial prescribing, and diagnostics, which span primary, secondary, and social care services. National strategies have been published for a range of conditions, from cancer to trauma. There are national registries for key disease groups and procedures. Maximum waiting times have been set for cancer treatment, elective treatments, and emergency treatment. A website, NHS Evidence, provides professionals and patients with up-to-date clinical guidelines.

Information on the quality of services at the organization, department, and (for some procedures) physician levels is published on the NHS website. Results of inspections by the Care Quality Commission are also publicly accessible.

The Quality and Outcomes Framework provides general practices with financial incentives to improve quality. General practices are awarded points (which determine a portion of their remuneration) for keeping a disease registry of patients with certain diseases or conditions, including data on patient management and treatment. For hospitals, 2.5 percent of contract value is linked to the achievement of a limited number of quality goals through the Commissioning for Quality and Innovation initiative. In addition, DRG rates for some procedures are linked to compliance with best practices.

All doctors are required by law to have a license from the General Medical Council to practice. Similar requirements apply to all professions working in the health sector. A revalidation process every five years has been introduced for doctors, nurses, and midwives.

Healthwatch England promotes patient interests nationally. In each community, local Healthwatches support people who make complaints about services; quality concerns may be reported to Healthwatch England, which can then recommend that the Care Quality Commission act. In addition, local NHS bodies, including general practices, hospital trusts, and CCGs, are expected to support their own patient engagement groups and initiatives.

What is being done to reduce disparities?

The Secretary of State, Public Health England, NHS England, and CCGs have a legal duty to "have regard" for the need to reduce health disparities, although the applicable legislation does not specify what actions need to be taken. NHS England publishes an annual report on the actions taken and progress being made in reducing disparities in access and outcomes, by gender, disability, age, socioeconomic status, and ethnicity.[36]

NHS strategies include:

- ensuring that local CCG areas receive adequate resources to tackle inequalities
- measuring progress toward reducing disparities
- financially incentivizing reductions in inequalities in certain areas, such as early cancer diagnosis and mental health
- sharing best practices for achieving targeted goals, such as care for homeless people
- using risk stratification tools to identify people at risk of ill health.

Public Health England also has been tasked with reducing health inequalities and has published extensive guidance for local authorities.[37] The agency also publishes data on progress in a health equity "dashboard."[38] Budgets for public health are held by local government authorities, which are required to host health and well-being boards to improve coordination of local services and reduce health disparities. Using local taxes and grants from central government, local government also funds social services for children and adults, the latter subject to means testing.

What is being done to promote delivery system integration and care coordination?

GPs are responsible for care coordination as part of their overall contract with the NHS. For instance, the 2018–2019 GP contract aims to improve care coordination for older patients by requiring practices to have a "named accountable GP" for all patients over age 75. GPs also have financial incentives to provide continuous monitoring of patients with the most common chronic conditions, such as diabetes and heart disease.

GPs work increasingly in multipartner practices that employ nurses and other clinical staff to carry out much of the routine monitoring of patients with long-term conditions. These practices also have some features of a medical home. For instance, they direct patients to specialists in hospitals or to community-based professionals, like dietitians and community nurses, and maintain treatment records of their patients.

The 2012 Health and Social Care Act charged NHS England and CCGs with promoting integrated care, which is defined as closer links between hospital- and community-based health services, including primary and social care.

In 2016, NHS organizations and local authorities were brought together in 44 sustainability and transformation partnerships with the aim of planning services together. Fourteen of these partnerships have become integrated care systems (ICSs), in which local authorities, GP networks, and local hospitals assume joint responsibility for sharing resources across their populations (1 million people on average).[39] The formation of integrated care systems, which are modeled on accountable care organizations in the United States, is currently voluntary. The individual organizations in the systems are still legally accountable for their own budgets.

Knowledge on care integration was gained from 50 vanguard sites, smaller pilots of collaborative working groups, launched in 2014. These 50 sites delivered integrated services for older people or those with long-term conditions via scaled-up general practices and collaborations between hospitals and care homes. Evaluation of these vanguard programs has shown the potential to reduce hospital use among vulnerable populations through better community-based care. For example, a project to improve health care in care homes led to 23 percent fewer emergency admissions and 29 percent fewer accident and emergency department attendances than in other parts of the country.[40]

What is the status of electronic health records?

The NHS number assigned to every registered patient serves as a unique identifier. All general practice patient records are computerized. Since April 2015, all GP practices have been contractually obliged to offer patients the choice of booking appointments and ordering prescriptions online. As of March 31, 2016, practices are required to offer patients access to their own detailed coded record, including information about diagnoses, medications and treatments, immunizations, and test results. Practices are not required to allow patients access to information that clinicians enter in free-text fields. When electronic records are not available to patients, such as in dentistry, they can request a paper copy.

The NHS is aiming to move to a paperless system across primary, urgent, and emergency care services by 2020. Beginning in October 2018, all NHS providers are required to receive all referrals to outpatient services from GPs electronically.[41]

The NHS website serves as a single point of access for patients to register with a GP, book appointments and order prescriptions, access approved apps and digital tools, find information about local services, and learn about health in general. The website will eventually allow patients to speak to their doctor online or via video link and view their full health record.[42]

How are costs contained?

Costs in the NHS are constrained by a national health care budget that cannot be exceeded, rather than through patient cost-sharing or direct constraints on supply. NHS budgets are set at the national level, usually on a three-year cycle. CCGs are allocated funds by NHS England, which closely monitors their financial performance to prevent overspending. Both CCGs and NHS providers are expected to achieve a balanced budget each year.

Since 2010, the allocation of funds by the central government has grown much more slowly than the long-term historical rate, which averaged 4 percent in real terms between 1949–1950 and 2010–2011.[43] Between 2010–2011 and 2014–2015, average real-term growth in spending on health rose by 1.2 percent and is projected to rise by 2.7 percent in real terms by 2019–2020.[44]

The mismatch between funding, demand, and the cost of providing services has led to NHS hospitals and other providers accumulating an underlying deficit of GBP 4.3 billion (USD 6.1 billion).[45]

Although some of the savings targets have been met in the past five years, the financial pressure on the NHS is being associated with some deterioration in the quality of care — notably waiting time targets.[46]

Cost-containment strategies to date include freezing staff pay increases, supporting the increased use of generic drugs, reducing DRG payments for hospital activity, managing demand, and reducing administration costs. In 2016, NHS Improvement launched a program to help hospital providers generate savings through more efficient use of staff, more cost-effective purchasing of drugs and medical equipment, and better management of estates and facilities. If implemented, the program could save GBP 5.0 billion (USD 7.1 billion) by 2020.[47]

There are a number of tools provided by the government-funded Rightcare program whereby local purchasers can maximize value by addressing unwarranted variations in utilization and clinical practice. Local purchasers can also run competitive tenders for certain services.

Costs for prescription (branded) drugs are contained through a voluntary agreement between the U.K. government and the pharmaceutical industry. The latest scheme, which came into force in January 2019, is known as the Voluntary Scheme for Branded Medicines Pricing and Access and will run for five years. It caps the growth in the sales of branded medicines at 2 percent per annum.[48]

This scheme runs parallel with the cost-effectiveness appraisals by the National Institute for Health and Care Excellence , which tends not to recommend new drugs as cost-effective if they exceed GBP 20,000– 30,000 (USD 28,500–42,675) per quality-adjusted life year. For drugs or treatments that have not been appraised by the Institute, the NHS Constitution states that CCGs shall make rational, evidence-based decisions.[49,50]

What major innovations and reforms have recently been introduced?

In October 2014, NHS bodies, led by NHS England, published the *Five Year Forward View*, which sets out the challenges facing the NHS and strategies to address them.[51] These include pilot programs across England to test new models of care, among them:

- scaled-up multidisciplinary primary care
- enhanced health care in long-term care homes
- vertically integrated hospital and community care
- networks to improve emergency care.

Five-year strategies have also been published for improving cancer and mental health services, and better prevention, including a diabetes prevention initiative.[52] The *General Practice Forward View* sets out strategies to reduce workforce shortages in primary care and to streamline GP workloads.[53] These initiatives have recently been consolidated in the NHS Long Term Plan, published in early 2019. This 10-year plan sets out a vision for local integrated care systems to improve population health, new national strategies on cardiovascular and respiratory disease (in addition to cancer and mental health), and new primary care networks to better link together general practices.[54]

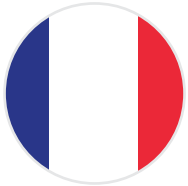
The authors would like to acknowledge Anthony Harrison, the author of earlier versions of this profile, as well as Sean Boyle of LSE, Claire Mundle and Sarah Gregory of the King's Fund, and Sandeepa Arora of the Nuffield Trust.

REFERENCES

1. While this profile focuses on the English health care system, some of the statistics cited refer to the entire United Kingdom. All four countries in the United Kingdom have universal health coverage, and each country has its own National Health Service that oversees health care: NHS England, NSH Scotland, NSH Wales, and Health and Social Care in Northern Ireland.
2. HM Government, National Health Service Act, 1946, http://www.legislation.gov.uk/ukpga/1946/81/pdfs/ukpga_19460081_en.pdf.
3. Department of Health, *Guidance on Implementing the Overseas Visitors Hospital Charging Regulations*, 2015, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/496951/Overseas_visitor_hospital_charging_accs.pdf.
4. Department of Health, *NHS Constitution for England*, updated Oct. 14, 2015, https://www.gov.uk/government/publications/the-nhs-constitution-for-england.
5. In cases where data for England are unavailable, U.K. data are used instead.
6. NHS England, *Clinical Commissioning Groups*, https://www.england.nhs.uk/commissioning/who-commissions-nhs-services/ccgs/; accessed 2/3/2019.
7. Office for National Statistics, *UK Health Accounts: 2016*, April 25, 2018, https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthcaresystem/bulletins/ukhealthaccounts/2016.
8. LaingBuisson, *Health Cover UK Market Report*, 12th ed., Aug. 2015, http://www.laingbuisson.com/wp-content/uploads/2016/06/Health_Cover_12ed_Bro_WEB.pdf.
9. Office for National Statistics, *UK Health Accounts*, https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthcaresystem/bulletins/ukhealthaccounts/2016.
10. King's Fund, *The UK Private Healthcare Market: Appendix to the Commission on the Future of Health and Social Care in England: Final Report*, 2014, https://www.kingsfund.org.uk/sites/files/kf/media/commission-appendix-uk-private-health-market.pdf.
11. Competition and Markets Authority, *Private Healthcare Market Investigation*, April 2, 2014, https://assets.publishing.service.gov.uk/media/533af065e5274a5660000023/Private_healthcare_main_report.pdf.
12. Please note that, throughout this profile, all figures in USD were converted from GBP at a rate of GBP0.703 per USD, the purchasing power parity conversion rate for GDP in 2017 reported by OECD (2017) for the United Kingdom, https://stats.oecd.org/Index.aspx?DataSetCode=SNA_TABLE4; accessed 5/13/2018.
13. Including consumer spending on drugs and medical products not covered by the NHS, such as glasses, dental treatment, and spending on hospital and outpatient care. Office for National Statistics, *UK Health Accounts*, https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthcaresystem/bulletins/ukhealthaccounts/2016.
14. NHS Digital, *Prescriptions Dispensed in the Community: England, 2006–16*, June 29, 2017, https://files.digital.nhs.uk/publication/s/o/pres-disp-com-eng-2006-16-rep.pdf.
15. NHS England, *General Practice Forward View*, 2016, https://www.england.nhs.uk/gp/gpfv/.
16. Office for Students, 2018, *Health Education Funding*, https://www.officeforstudents.org.uk/advice-and-guidance/funding-for-providers/health-education-funding/medical-and-dental-target-intakes/.
17. NHS Digital, *General and Personal Medical Services, England September 2017*, Feb. 15 2018, https://files.digital.nhs.uk/pdf/r/4/general_and_personal_medical_services__england_september_2017.pdf.
18. Health and Social Care Information Centre, *Investment in General Practice, 2010/11 to 2014/15, England, Wales, Northern Ireland and Scotland*, Sept. 17, 2015, http://www.hscic.gov.uk/catalogue/PUB18469.
19. King's Fund and Nuffield Trust, *Securing the Future of General Practice: New Models of Primary Care*, July 2013, http://www.nuffieldtrust.org.uk/sites/files/nuffield/publication/130718_securing_the_future_summary_0.pdf.

20. NHS Digital, *GP Earnings and Expenses Estimates: 2016 to 2017*, Aug. 30, 2018, https://digital.nhs.uk/data-and-information/publications/statistical/gp-earnings-and-expenses-estimates/2016-17.
21. NHS Digital, *Healthcare Workforce Statistics, England, December* 2017, March 2018, https://digital.nhs.uk/data-and-information/publications/statistical/nhs-workforce-statistics/nhs-workforce-statistics-december-2017.
22. NHS Digital, *Healthcare Workforce Statistics, England, December*, 2017, March 2018, https://digital.nhs.uk/data-and-information/publications/statistical/nhs-workforce-statistics/nhs-workforce-statistics-december-2017.
23. GHK Consulting Ltd. and Office of Fair Trading, *Programme of Research Exploring Issues of Private Healthcare Among General Practitioners and Medical Consultants: Population Overview Report for the Office of Fair Trading*, 2011.
24. NHS Confederation, *Key Statistics on the NHS*, July 2017 http://www.nhsconfed.org/resources/key-statistics-on-the-nhs; accessed May 6, 2018.
25. Department of Health, *A Simple Guide to Payment by Results*, March 25, 2013, https://www.gov.uk/government/publications/simple-guide-to-payment-by-results.
26. Private Healthcare Information Network, *Annual Report*, 2016–17, https://apicms.phin.org.uk/Content/Resource/158-PHIN_AR_2016-17.pdf.
27. Competition and Markets Authority, *Private Healthcare Market Investigation*, 2014, https://assets.publishing.service.gov.uk/media/533af065e5274a5660000023/Private_healthcare_main_report.pdf.
28. UK Parliament, *NHS: Procurement: Written Question 66091*, March 6, 2017, https://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2017-03-01/66091/.
29. NHS Digital, *Annual Report on the use of IAPT services in England 2017-18*, https://digital.nhs.uk/data-and-information/data-tools-and-services/data-services/mental-health-data-hub/psychological-therapies.
30. NHS Digital, *NHS England Continuing Healthcare and NHS-funded Nursing Care Report, Quarter 4 Report, England 2018-19, Official Statistics* (May 2019), https://www.england.nhs.uk/statistics/wp-content/uploads/sites/2/2019/05/CHC-and-FNC-Report-Q4-2018-19_m3XqNM.pdf.
31. Nuffield Trust, *Focus On: Social Care for Older People—Reductions in Adult Social Services for Older People in England*, March 2014, http://www.nuffieldtrust.org.uk/sites/files/nuffield/publication/140326_qualitywatch_focus_on_social_care_older_people_0.pdf.
32. National Audit Office, *Adult Social Care at a Glance*, 2018, https://www.nao.org.uk/wp-content/uploads/2018/07/Adult-social-care-at-a-glance.pdf.
33. National Audit Office, *Adult Social Care at a Glance*, 2018.
34. Department for Work and Pensions, *Family Resources Survey 2016–17,* March 2018, www.gov.uk/government/statistics/family-resources-survey- financial-year-201617.
35. House of Commons Library, *Social Care: Care Home Market – Structure, Issues, and Cross-Subsidisation (England),* Feb. 2018, researchbriefings.files.parliament.uk/documents/CBP-8003/CBP-8003.pdf.
36. NHS England, *Our 2017–18 Annual Report: Health and High Quality Care for All, Now and for Future Generations*, July 18, 2018, https://www.england.nhs.uk/wp-content/uploads/2018/07/Annual-Report-Full-201718.pdf.
37. Public Health England, *Health Equity Collection*, Aug. 8, 2018, https://www.gov.uk/government/collections/health-equity#guidance-for-system-wide-approaches-to-reduce-health-inequalities.
38. Public Health England, *Health Equity Dashboard*, 2018, https://data.healthdatainsight.org.uk/apps/health_inequalities/.
39. NHS England, *NHS Performance and Progress on Implementation of 'Next Steps on the NHS Five Year Forward View'* (Board Paper), Nov. 2018, https://www.england.nhs.uk/wp-content/uploads/2018/11/10-pb-28-11-2018-fyfv-performance-report.pdf.
40. The Health Foundation, *Briefing: The Impact Of Providing Enhanced Support for Care Home Residents in Rushcliffe*, March 2017, https://www.health.org.uk/publications/the-impact-of-providing-enhanced-support-for-care-home-residents-in-rushcliffe.
41. NHS England, *NHS Performance and Progress on Implementation of 'Next Steps on the NHS Five Year Forward View'*.
42. Department of Health, *Personalised Health and Care 2020 — Using Data and Technology to Transform Outcomes for Patients and Citizens: A Framework for Action*, Nov. 2014, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/384650/NIB_Report.pdf.
43. Nuffield Trust, *NHS and Social Care Funding: The Outlook to 2021/22, Nuffield Trust*, July 2012, http://www.nuffieldtrust.org.uk/sites/files/nuffield/publication/120704_nhs-social-care-funding-outlook-2021-22-update2.pdf.
44. Nuffield Trust, Health Foundation, and King's Fund, *Budget 2018, What It Means for Health and Social Care,* Nov. 2018.
45. S. Gainsbury, *NHS Funding Boost: The Need to Manage Expectations,* Nov. 2018, https://www.nuffieldtrust.org.uk/news-item/nhs-funding-boost-the-need-to-manage-expectations.
46. Nuffield Trust and Health Foundation, *Combined Performance Summary: October–November 2018*, https://www.nuffieldtrust.org.uk/news-item/combined-performance-summary-october-november-2018.
47. Department of Health, *Operational Productivity and Performance in English NHS Acute Hospitals: Unwarranted Variation — An Independent Report for the Department of Health by Lord Carter of Coles*, Feb. 2016, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/499229/Operational_productivity_A.pdf.
48. Department of Health and Social Care, and ABPI, *The 2019 Voluntary Scheme for Branded Medicines Pricing and Access,* Dec. 2018. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/761834/voluntary-scheme-for-branded-medicines-pricing-and-access-chapters-and-glossary.pdf.
49. Department of Health, *The NHS Constitution for England*, updated Oct. 14, 2015, https://www.gov.uk/government/publications/the-nhs-constitution-for-england/the-nhs-constitution-for-england.
50. A total of 533 appraisals were carried out between March 2000 and August 2014.
51. NHS England, *Five Year Forward View*, Oct. 2014, https://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf.
52. NHS England, *Five Year Forward View*: Time to Deliver, June 4, 2015, https://www.england.nhs.uk/wp-content/uploads/2015/06/5yfv-time-to-deliver-25-06.pdf.
53. NHS England, *General Practice Forward View*, April 2016, https://www.england.nhs.uk/wp-content/uploads/2016/04/gpfv.pdf.
54. NHS England, *The NHS Long Term Plan*, Jan. 2019, https://www.longtermplan.nhs.uk/wp-content/uploads/2019/01/nhs-long-term-plan.pdf.

The French Health Care System



Isabelle Durand-Zaleski
AP-HP and Université Paris-Est, Paris, France

The French government sets the national health strategy and allocates budgeted expenditures to regional health agencies, which are responsible for planning and service delivery. Enrollment in France's statutory health insurance system is mandatory. The system covers most costs for hospital, physician, and long-term care, as well as prescription drugs; patients are responsible for coinsurance, copayments, and balance bills for physician charges that exceed covered fees. The insurance system is funded primarily by payroll taxes (paid by employers and employees), a national income tax, and tax levies on certain industries and products. Ninety-five percent of citizens have supplemental insurance to help with these out-of-pocket costs, as well as dental, hearing, and vision care.

How does universal health coverage work?

Universal coverage was achieved over seven decades by extending statutory health insurance (SHI) to all employees (in 1945), retirees (in 1945), the self-employed (in 1966), and the unemployed (in 2000). In 2000, the *Couverture maladie universelle* (Universal Health Coverage), or CMU, was created for residents not eligible for SHI, although the program required yearly renewals and entitlement changes whenever a beneficiary's professional or family situation changed. After the implementation of CMU, fewer than 1 percent of residents were left without baseline coverage.

In January 2016, SHI eligibility was universally granted under the *Protection universelle maladie* (Universal Health Protection law), or PUMa, to fill in the few remaining coverage gaps. The law also replaced and simplified the existing system by providing systematic coverage to all French residents. It merged coverage for persons previously covered by the Universal Health Coverage and immigrants covered by the state-sponsored health insurance.[1]

Role of government: The provision of health care in France is a national responsibility. The Ministry of Social Affairs, Health, and Women's Rights is responsible for defining the national health strategy. It sets and implements government policy for public health as well as the organization and financing of the health care system.

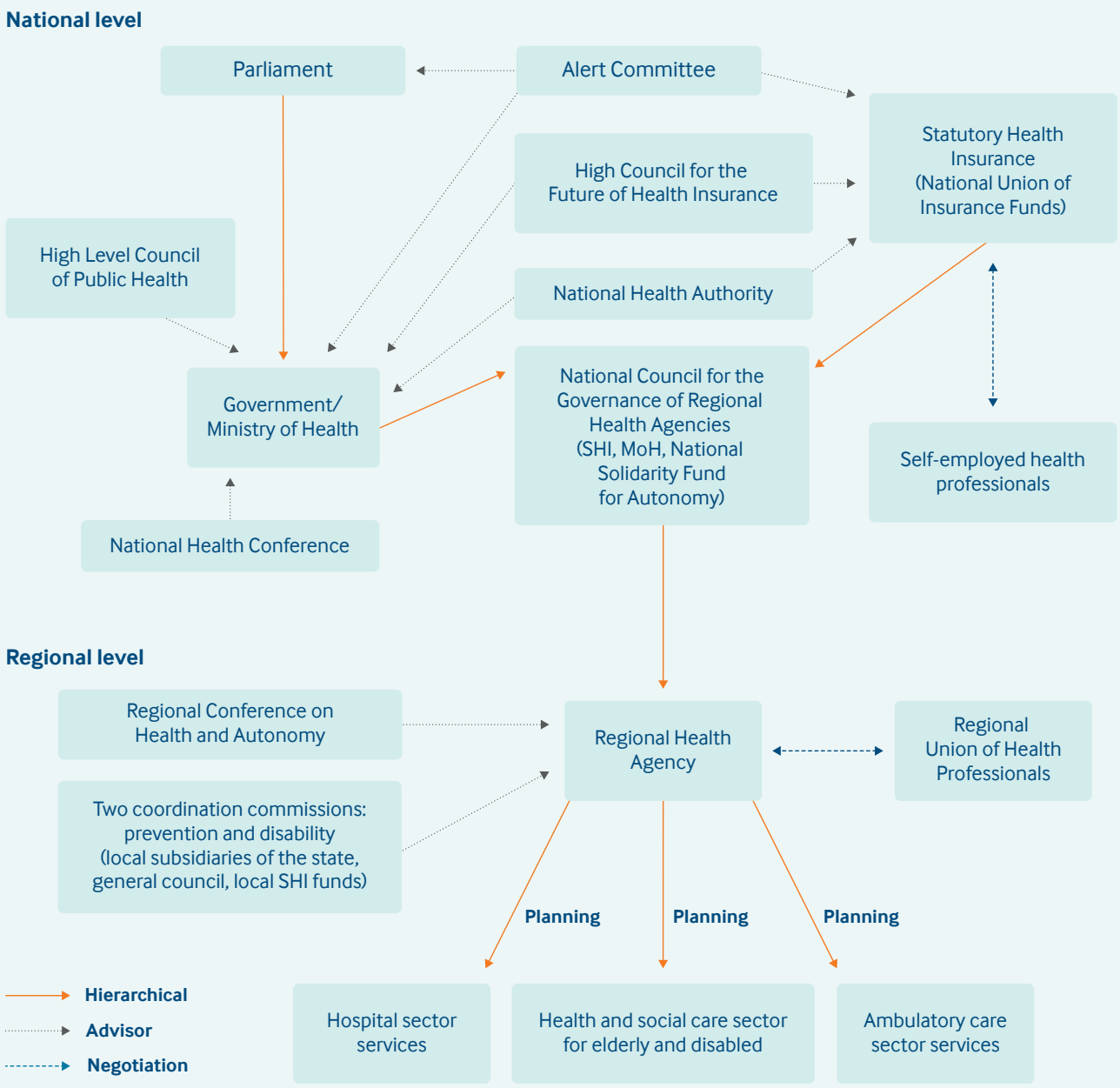
Over the past two decades, the state has been increasingly involved in controlling health expenditures funded by SHI.[2] It regulates roughly 75 percent of health care expenditures on the basis of the overall framework established by Parliament. The central government allocates budgeted expenditures among different sectors (hospitals, ambulatory care, mental health, and services for disabled residents) and regions.

The Ministry of Social Affairs, Health, and Women's Rights is represented in the regions by the Regional Health Agencies, which are responsible for coordinating population health and health care, including prevention and care delivery, public health, and social care.

Other key government agencies include:

- The French Health Products Safety Agency, which oversees the safety of health products, from manufacturing to marketing.
- The Agency for Information on Hospital Care, which manages the information systematically collected from all hospital admissions and used for hospital planning and financing.
- The National Agency for the Quality Assessment of Health and Social Care Organizations, which promotes patient rights and develops preventive measures to avoid mistreatment, particularly in vulnerable populations such as the elderly and disabled, children, adolescents, and socially marginalized people. The agency also produces practice guidelines for the health and social care sector and evaluates organizations and services.
- The National Health Authority, the main health technology assessment body. In addition to assessing drugs, medical devices, and procedures, the agency publishes guidelines, accreditates health care organizations, and handles certification of doctors.
- The French Agency for numerical health (*ASIP Santé*), which seeks to expand the uptake and interoperability of existing health information systems.
- The Public Health Agency (*Santé publique France*), created in 2016 to protect population health. It conducts epidemiological surveys, scans for health threats, and pursues health protection and promotion efforts.

ORGANIZATION OF THE HEALTH SYSTEM IN FRANCE



Notes: SHI: Statutory health insurance. MoH: Ministry of Health.

Source: Adapted from K. Chevreul, I. Durand-Zaleski, S. B. Bahrami et al., "France: Health System Review," *Health Systems in Transition*, vol. 12, no. 6, 2010, pp. xxi–xxii.

Role of public health insurance: Total health expenditures constituted 11.5 percent of GDP in 2017, which amounted to EUR 266 billion (USD 337 billion); 77 percent of those expenditures were publicly financed.[3,4]

SHI financing is supplied as follows[5,6]:

- Payroll taxes provide 53 percent of funding, with employers paying 80 percent of the tax and employees paying the rest; contributions are calculated from the actual salaries, capped at EUR 3,311 (USD 4,191) per month.
- A national earmarked income tax contributes 34 percent of funding.

- Taxes levied on tobacco and alcohol, the pharmaceutical industry, and voluntary health insurance (VHI) companies provide 12 percent of funding.
- State subsidies account for 1 percent of funding.

Coverage is compulsory, and is provided to all residents by noncompetitive statutory health insurance funds; historically, there have been 42 funds. Annual contributions are determined by Parliament. The SHI scheme in which workers enroll is based upon the type of employment. Unemployed persons are covered for one year after job termination by the SHI scheme of their employer and then by the universal health coverage law. Citizens can opt out of SHI only in rare cases, such as when they are employed by foreign companies.

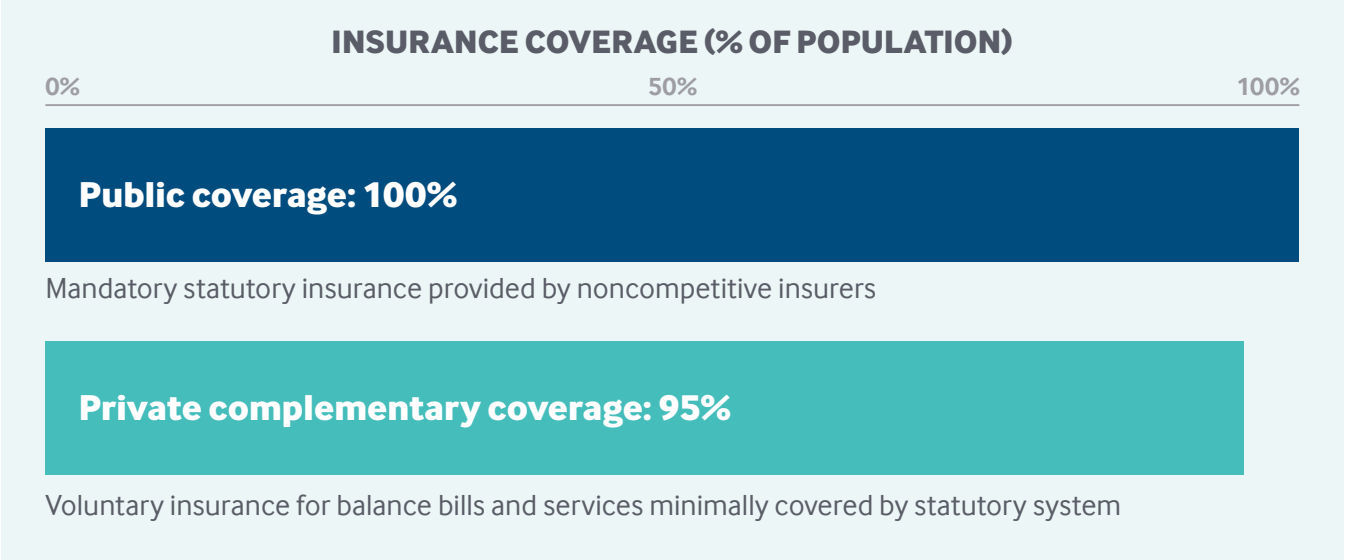
The state finances health services for undocumented immigrants who have applied for residence. Visitors from elsewhere in the European Union (EU) are covered by an EU insurance card. Non-EU visitors are covered for emergency care only.

Role of private health insurance: Most voluntary health insurance (VHI) is complementary, covering mainly copayments and balance billing, as well as vision and dental care, which are minimally covered by SHI.

Complementary insurance is provided mainly by not-for-profit, employment-based associations or institutes. Private for-profit companies offer both supplementary and complementary health insurance, but only for a limited list of services. Voluntary health insurance finances 13.5 percent of total health expenditures.[7] Ninety-five percent of the population is covered by VHI, either through employers or via means-tested vouchers (see more under "Safety nets," below). As of 2016, all employees benefit from employer-sponsored VHI, for which employees pay at least 50 percent of the cost.

The extent of coverage varies widely, but all VHI contracts cover the difference between the SHI reimbursement rate and the official fee on the national fee schedule. Coverage of balance billing is also commonly offered.

In 2013, standards for employer-sponsored VHI were established by law to reduce inequities stemming from variations in access and quality.



Services covered: Covered benefits under SHI are defined at the national level by the Ministry of Social Affairs, Health, and Women's Rights and the SHI funds, which are grouped under the National Union of Health Insurance Funds, or UNCAM, an umbrella organization. SHI covers the following:

- hospital care
- treatment in public or private rehabilitation or physiotherapy institutions
- outpatient care provided by general practitioners, specialists, dentists, physical therapists, and midwives
- all maternity care services, from the 12th week of pregnancy through six months after delivery
- newborn care and children's preventive health care up to age 4

- diagnostic services prescribed by doctors and carried out by laboratories and paramedical professionals
- prescription drugs
- medical appliances, including durable equipment such as wheelchairs and prostheses, that have been approved for reimbursement
- prescribed health care–related transportation and home care.

SHI also partially covers long-term hospice and mental health care and provides minimal coverage of vision care, hearing aids, and dental care.

In general, there is limited coverage of preventive care; however, there is full reimbursement for priority services — immunizations, mammograms, and colorectal cancer screenings, for example — as well as for preventive care for children and low-income populations.

Injection sites under the supervision of health professionals were legalized in 2015 for the treatment of especially vulnerable drug addicts; these are fully covered under SHI until 2021.[8]

Cost-sharing and out-of-pocket spending: There are no deductibles. Cost-sharing for primary and specialist care takes three forms: coinsurance, copayments, and balance billing. Some physicians are allowed to balance-bill above the national fee schedule; authorization is based upon the duration of their hospital residency.

In 2015, total out-of-pocket spending made up 7 percent of total health expenditures (excluding the portion covered by supplementary insurance). This share has been decreasing in recent years, probably because of an agreement signed between physicians' unions and the government to cap balance billing at twice the official fee. This contract also offers patients partial reimbursement of balance billing through SHI and reduced social contributions for physicians.

Most out-of-pocket spending is for dental and vision services. Official fees for these services are very low, no more than a few euros for glasses or hearing aids, and the maximum fee for dentures is EUR 200 (USD 253). But providers commonly balance-bill for these services at more than 10 times the official fee. However, the share of out-of-pocket spending on dental and optical services has been decreasing because of higher voluntary health coverage for these services.

At the same time, out-of-pocket expenditures on drugs have been steadily growing because more prescription drugs are being taken off the national formulary. The number of over-the-counter drugs has also risen.

The table below lists copayments for various services. Coinsurance rates are applied to all health services and drugs listed in the benefit package and vary by:

Type of care: 20 percent for inpatient stays, 30 percent for outpatient doctor and dentist visits.

Effectiveness of prescription drugs: highly effective drugs like insulin carry no coinsurance, while rates for all other drugs range from 15 percent to 100 percent, depending on the drug's therapeutic value, whether patients seek a referral from their primary care provider, and whether they seek specialist care or treatments directly without a referral.

Hospital coinsurance applies only to the first 31 days in hospital, and some surgical interventions are exempt; there are no caps on other coinsurance.

Safety nets: People with low incomes are entitled to free or discounted health insurance, free vision care, and free dental care. Individuals are considered low-income if they make EUR 8,723 (USD 11,040) or less per year. For households, the qualifying income level increases with each member. The total number of low-income beneficiaries is estimated at around 9 percent of the population, with 6 percent receiving means-tested vouchers for VHI and 3 percent getting free state-sponsored coverage.

TYPICAL PATIENT COPAYMENTS AND SAFETY NETS*

SERVICE	FEES PER ENCOUNTER/ SERVICE	MAXIMUM OUT-OF-POCKET COSTS PER YEAR	SAFETY NET
Primary care visit with registered physician (general practitioner or specialist)	*Copayment:* EUR 1.00 (USD 1.26) *Coinsurance:* 30% of official fee up to EUR 24 (USD 32) Typical total patient fee: EUR 7.5 (USD 9.4)	Copayments capped at EUR 50 (USD 63) per year for physician visits, and at EUR 50 (USD 63) per year for nurse visits, transportation, medications, and physiotherapy	*Exempt from all user charges:* maternity care, newborn care, and select preventive care *Exempt from coinsurance:* low-income households eligible for state-sponsored insurance; individuals with any of 32 chronic illnesses; and individuals on disability or work-injury compensation *Exempt from copayments:* children and people with low income
Specialist consultation (for second opinion or recurrent visits)	*Copayment:* EUR 1.00 (USD 1.26) *Coinsurance:* 30% of official fee of EUR 29–68 (USD 36.7–86.0), depending on specialty and other factors Typical total patient fee: EUR 13.5–20.4 (USD 17.0–25.8)		
Hospitalization (per day or visit) including pharmaceuticals	*Copayment:* EUR 18 (USD 23) per day *Coinsurance:* 20%	Coinsurance applies to first 31 hospital days; some surgical interventions are exempt	
Prescription drugs (outpatient)	*Copayment:* EUR 0.50 (USD 0.63) per box *Coinsurance:* 0% for highly effective drugs; 15%–100% for other drugs, depending on therapeutic value	Copayments capped at EUR 50 (USD 63) per year	

*This chart does not take into account out-of-pocket costs reimbursed by VHI.

How is the delivery system organized and how are providers paid?

Physician education and workforce: Once a year, the Ministry of Social Affairs, Health, and Women's Rights determines the maximum number of students that can be admitted to medical, dental, midwifery, and pharmacy schools, which are all public by law. Tuition fees are approximately EUR 500 (USD 633) per year.

The number of medical professionals is controlled at the point of entry into medical education. In addition, 12 percent of the current medical workforce are foreign-trained medical professionals. To date, there are no limitations on the number of practicing physicians by region. However, since 2013, outpatient physicians can enter into contractual agreements that guarantee a monthly salary of EUR 6,900 (USD 8,734) if they practice in a region with insufficient physician supply and agree to limit extra billing. For physicians who work full-time in medical centers in underserved areas, the guaranteed salary is approximately EUR 50,000 (USD 63,290) per year.

Primary care: There are roughly 102,299 general practitioners (GPs) and 121,272 specialists in France (a ratio of 3.4 per 1,000 population). About 59 percent of physicians are self-employed on a full-time or part-time basis (67% of GPs, 51% of specialists).[9]

More than 50 percent of GPs, predominantly younger doctors, are in group practices. An average practice is made up of two-to-three physicians. Seventy-five percent of practices are made up exclusively of physicians; the remaining practices also include nurses and a range of allied health professionals. The average patient panel size is about 900 patients for GPs.

There is a voluntary gatekeeping system for people aged 16 and older, with financial incentives offered to those who opt to register with a GP or specialist. About 95 percent of the population have chosen a GP as their gatekeeper, but specialists can also serve as gatekeepers.

Self-employed GPs are paid mostly on a fee-for-service basis, with fees determined by SHI funds and the Ministry of Social Affairs, Health, and Women's Rights. In 2018, GP fees were EUR 25 (USD 32) per consultation. GPs can also receive a capitated per-person annual payment of EUR 40 (USD 51) to coordinate care for patients with chronic conditions. In addition, GPs receive an average of EUR 5,000 (USD 6,330) a year for achieving pay-for-performance targets.

In 2014, the average income of primary care doctors was EUR 86,000 (USD 108,860), 94 percent of which came from fees for consultations and the remainder from financial incentives and salary.[10]

GPs can bill above the national fee schedule, and 25 percent do. Specialists earn, on average, 1.3 times what GPs earn.

Experimental GP networks are being piloted that provide chronic-care coordination, psychological services, dietician services, and other care not covered by SHI. These networks are financed by earmarked funds from the Regional Health Agencies. In addition, more than 1,000 medical homes provide multi-professional services (usually with three-to-five physicians and roughly a dozen other health professionals) and after-hours care.

Outpatient specialist care: About 36 percent of outpatient specialists are exclusively self-employed, either in offices or private clinics, and are paid on a fee-for-service basis; the rest either are fully salaried hospital employees or have a mix of income sources.

Specialists working in public hospitals may see private-pay patients on either an outpatient or an inpatient basis, but they must pay a percentage of their earned fees to the hospital. A 2013 report estimated that 10 percent of the 46,000 hospital specialists in surgery, radiology, cardiology, and obstetrics had treated private patients.

Half of specialists are in group practices, and this percentage is increasing among specialties that require major investments in technology and equipment to serve patients, such as nuclear medicine, radiotherapy, pathology, and digestive surgery. The specialist fee set by SHI ranges from EUR 25 (USD 32) to EUR 69 (USD 88). Specialists can balance-bill, and nearly 43 percent do.

The average yearly income of self-employed specialists is EUR 140,610 (USD 177,800).[11] All specialists who are self-employed can participate in pay-for-performance programs. Specialists must meet disease-specific quality targets in addition to those targets that apply to GPs. The average annual income derived from pay-for-performance is EUR 5,480 (USD 6,937) per physician, which constitutes less than 2 percent of total funding for outpatient services.

Patients with a referral can choose among specialists. Seeing a specialist without a referral from a gatekeeping physician results in reduced SHI coverage. However, some specialists can be directly accessed without a referral, including gynecologists, ophthalmologists, psychiatrists, and stomatologists.

Administrative mechanisms for direct patient payments to providers: Patients pay the full fee (reimbursable portion and balance billing, if any) at the end of a physician visit. After the insurance claim is filed, patients are reimbursed the full sum or less, depending on their coverage, minus the copayment.

After-hours care: After-hours care is organized by the Regional Health Agencies and delivered by contracted hospital emergency departments, self-employed physicians who work for emergency services, and medical homes financed by SHI and staffed by doctors and nurses on a voluntary basis. Primary care physicians are not mandated to provide after-hours care.

There is no systematic method to ensure that information from the patient visit is transferred to the patient's GP.

There is currently no national or regional medical advice phone service, but teleconsultation became legal in September 2018 and can be used for after-hours care in certain localities.

Hospitals: Public institutions account for about 65 percent of hospital capacity and activity. Private for-profit facilities account for another 25 percent, and private nonprofit facilities make up the remainder.

All hospitals are reimbursed under SHI via the diagnosis-related group (DRG) system set by the Ministry of Social Affairs, Health, and Women's Rights, which applies to all inpatient and outpatient admissions and covers all medical services and physicians' salaries in public and not-for-profit hospitals. Neither bundled payment nor performance incentives exist.

Hospitals are reimbursed for certain expensive and innovative drugs and devices in addition to the DRG tariff. A list of covered drugs and devices is updated every year by the Ministry of Social Affairs, Health, and Women's Rights, based on semitransparent criteria of innovativeness, price, and the share of the DRG population requiring the innovative drug or device.

Public hospitals are funded mainly by SHI (80%), with voluntary insurance and direct patient payments accounting for their remaining income. Public and private nonprofit hospitals also receive research and teaching grants (up to 13% of hospital budgets) and provisions for providing emergency services, organ harvesting, and organ transplantation (on average, 10%–11% of budget).

Private, for-profit clinics owned either by individuals or, increasingly, by large corporations have the same funding mechanism as public hospitals, but the share of respective payers differs. Physician fees are billed in addition to the DRG in private clinics, and DRG payment rates are lower there than they are in public or nonprofit hospitals.

Mental health care: Services for people with mental illness are provided by both the public and the private health care sector, with an emphasis on community-based provision. Public care is provided within geographically determined areas and includes a wide range of preventive, diagnostic, and therapeutic inpatient and outpatient services. Ambulatory centers provide primary ambulatory mental health care, including home visits.

SHI covers mental health care provided by GPs and psychiatrists in private practice, public mental health care clinics, and private psychiatric hospitals. Care provided by psychologists, psychotherapists, or psychoanalysts is fully paid by patients or covered by VHI. Copayments and the flat-rate fee for accommodation can also be fully covered by VHI. Copayments do not apply to persons with diagnosed long-term psychiatric disorders, including schizophrenia, bipolar disorder, severe anxiety, and depression.

Mental health care is not formally integrated with primary care, but a large number of disorders are treated on an outpatient basis by GPs or private psychiatrists or psychologists.

Long-term care and social supports: Health and social care for elderly and disabled people comes under the jurisdiction of the General Councils, which are the governing bodies at the local (departmental) level. The total number of frail elderly is estimated at about 1.25 million, or 2 percent of the population.[12] Total expenditures for long-term care were estimated to be EUR 30 billion (USD 37.9 billion) in 2015, or 1.7 percent of GDP.[13]

Institutional long-term care is provided in retirement homes and long-term care units, totaling roughly 10,000 institutions with a total of 728,000 beds.[10] Of these institutions, currently 54 percent are public, 28 percent private nonprofit, and 18 percent for-profit, although the percentage of for-profit institutions is increasing.

SHI covers the medical costs of long-term care in facilities, while families are responsible for the housing costs. These out-of-pocket costs average EUR 1,500 (USD 1,900) per month, some of which can be covered by VHI. End-of-life care in hospitals is fully covered.

Funding of home care and services for the elderly and disabled comes from the National Solidarity Fund for Autonomy, which is financed by SHI and the revenues from an unpaid working solidarity day. One day a year, employers pay the SHI their employees' daily wages. Local authorities, the General Councils, and households also participate in financing these categories of care.[14]

Home care for the elderly is provided mainly by self-employed physicians and nurses and, to a lesser extent, by community nursing services. It is covered by SHI and VHI, based on medical need; there is no means testing.

In addition, temporary care for dependent patients and respite services for their caregivers are available without means testing from the states or regions.

Means-tested cash allowances are provided to the frail elderly to pay for in-kind nonmedical services. The allowances are adjusted in relation to the individual's dependence level, living conditions, and needs, and may be used for any chosen service and provider. About 1.1 percent of the total population is estimated to be eligible. Informal caregivers also benefit from tax deductions but do not receive a cash allowance.

To address the loss of autonomy among the elderly, a law enacted at the end of 2015 established local conferences of stakeholders that meet yearly to define priorities, identify existing services, and create new programs as necessary.[15]

What are the major strategies to ensure quality of care?

An average of EUR 5,000 (USD 6,330) per physician annually is provided for achieving pay-for-performance targets related to the following:

- use of computerized medical charts
- adoption of electronic claims transmission
- delivery of preventive services, such as immunizations
- compliance with guidelines for diabetic and hypertensive patients
- generic prescribing
- limited use of psychoactive drugs for elderly patients.

Population health surveys are undertaken based on disease, population segment (such as newborns, students, elderly patients), or theme (like nutrition). In addition, there are regional disease-based registries for specific conditions, including cancer, multiple sclerosis, and congenital abnormalities. The CONSTANCES Cohort is a 200,000-person representative sample of the population, surveyed yearly with linkages to the national claims database. National surveys showing regional variations in health and access to health care are publicly reported.

There are national strategies for the treatment of chronic conditions like cancer and for rare diseases, as well as for prevention and healthy aging. These plans establish governance, develop tools, and coordinate participating organizations. For example, the national cancer plan sets goals for coordinating cancer research and treatment and establishes medical practice guidelines as well as minimum volume thresholds for complex procedures. All plans emphasize the importance of supporting caregivers and ensuring patients' quality of life, in addition to enforcing compliance with guidelines and promoting evidence-based practice.

To date, the National Health Authority has published evidence-based basic benefit packages for 32 chronic conditions. These benefit packages describe all the services needed for patients with those chronic conditions. Further guidance on recommended care pathways covers chronic obstructive pulmonary disease, heart failure, Parkinson's, and end-stage renal disease.

Provider networks of participating professionals share clinical guidelines and protocols, agree on best practices, and have access to a common patient record. In addition, telemedicine pilot programs aim to improve care coordination and access to care for specific conditions or populations, like newborns or the elderly.

For self-employed physicians, certification and revalidation are organized by independent bodies, such as medical societies approved by the National Health Authority. For hospital physicians, certification and revalidation can be performed as part of the hospital accreditation process.

Doctors, midwives, nurses, and other professionals must participate in continuous medical education activities, which are audited every fourth or fifth year. Optional accreditation exists for a number of high-risk medical specialties, such as obstetrics, surgery, and cardiology. Accredited physicians can claim a deduction on their professional insurance premiums.

Hospitals must be accredited every four years; criteria and accreditation reports are publicly available on the National Health Authority website (www.has-sante.fr). CompaqH, a national program of performance indicators, also reports results on selected indicators. Quality assurance and risk management in hospitals are monitored nationally by the Ministry of Social Affairs, Health, and Women's Rights, which posts hospital-acquired infection rates and other information online. Information on individual physicians is not available. Currently, financial rewards or penalties are not linked to public reporting, although the issue remains contested.

Nursing homes are also accredited by the National Health Authority (formerly by the Agence Nationale d'Evaluation Sociale et Médico-sociale) with a specific focus on preventing elder abuse. Home care provided by hospital subsidiaries is accredited by the National Health Authority with public reporting available online.

What is being done to reduce disparities?

Reducing disparities in regard to social determinants of health and access to care is a national priority. There is a 6.3-year gap in life expectancy between males in the highest social category and those in the lowest,[16,17] and poorer self-reported health among those with state-sponsored insurance and no VHI.

The 2004 Public Health Act set targets for reducing geographic and financial inequities in access to services and inequities in preventive care related to obesity, cancer screening, and immunization. Toward these goals, disparities are being addressed through physician contracts. For example, financial incentives encourage physicians to practice in underserved areas. Furthermore, physician contracts under SHI prohibit physicians from denying care to beneficiaries of state-sponsored health insurance and put a cap on balance billing.

There are published national statistics on nutrition, physical activity, and tobacco use, analyzed by social class and type of employment.[18] Differences in access to care are measured by participation in systematic screening programs and differences in health outcomes.

In March 2018, the Minister of Health presented the national plan to reduce health inequities with a EUR 400 million (USD 506 million) investment over five years and 25 measures that concern all age groups.[19]

What is being done to promote delivery system integration and care coordination?

Inadequate coordination in the health care system remains a problem. In addition to financial incentives provided to GPs (EUR 40 per patient with a chronic condition), various quality-related initiatives aim to improve the coordination of hospital, out-of-hospital, and social care. They target the elderly and fragile populations and attempt to streamline the health care pathway, integrating providers of health and social care through the use of case managers and a shared portal for both communication and data sharing. The Health Pathway of Seniors for Preserved Autonomy was launched five years ago to improve the coordination of care for the elderly. It did not improve health outcomes as expected, but will nevertheless be continued until the end of 2019.[20]

What is the status of electronic health records?

The electronic health record (EHR) project (*Projet dossier medical partagé*) covered roughly 1,882,503 patients at the end of 2018, and an estimated 731 hospitals (one-third of all hospitals). Hospital-based and office-based professionals and patients have a unique electronic identifier, and any health professional can access the record and enter information subject to patient authorization. Interoperability is ensured via a chip on patients' health cards.[21]

The initiative to fully integrate EHRs has faced multiple delays, and the integration of information systems between health care professionals and hospitals remains limited.[22] By law, patients have full access to the information in their own records, paper or electronic, either directly or through their GP. The sharing of information between health and social care professionals is planned as part of the deployment of EHRs to nursing homes, which started in 2019.[23]

How are costs contained?

SHI has faced large deficits over the past 20 years, but they have fallen from EUR 10–12 billion (USD 12.6 –15.2 billion) in 2003 to EUR 4.1 billion (USD 5.2 billion) in 2016.[24] This trend is the result of a range of initiatives, including:

- a reduction in the number of acute-care hospital beds
- the removal of 600 drugs from public reimbursement
- an increase in generic prescribing
- a reduction in the price of generic drugs
- the use of over-the-counter drugs
- a reduction of official fees for self-employed radiologists and biology labs
- the inclusion of central purchasing to better negotiate costs
- an increase in the proportion of outpatient surgery
- the institution of earlier post-surgery and post-delivery discharge
- a reduction in duplicate testing.

Competition is not used as a cost-control mechanism in SHI.

Global budgets are used only in price-volume agreements for drugs or devices. Patient cost-sharing mechanisms include increased copayments for patients who refuse generics or do not use the voluntary gatekeeping system.

The increasing price of drugs is being addressed through an increased use of generic and biosimilars incentivized by the pay-for-performance scheme, price-volume agreements, and undisclosed rebates with manufacturers.

There are also a number of initiatives to reduce low-value care, launched by SHI and the National Health Authority, including[25]:

- reductions in avoidable hospital admissions for patients with heart failure
- early discharge after orthopedic surgery and normal childbirth
- the use of DRG payments to incentivize shifts to outpatient surgery
- the establishment of guidelines for the number of allowable off-work days according to disease or procedure
- strengthened controls over the prescription of expensive statins and new anticoagulants
- incentives for the use of less-costly biosimilar drugs.

What major innovations and reforms have recently been introduced?

A controversial part of the 2015 Touraine law recommended making physician consultations totally free at the point of care: practitioners would be paid directly by social security and SHI for all visits. However, in view of the strong opposition from doctors, the extension of third-party payment to the entire patient population has been postponed indefinitely.

The mounting discontent over excessive balance billing revealed in the press, together with claims by private clinics of unfair competition, has prompted several public inquiries. The latest inquiry resulted in recommendations to increase public control over these activities.

Experiments with new payment mechanisms are in their early stages. These experiments are inspired by the creation of accountable care organizations. At the national level, bundled payments are to be tested in 2019–2020 for orthopedic and colorectal surgeries. In addition to the national program, regional initiatives are encouraged, with the objectives of integrating care and improving quality, relevance, efficiency, and prevention. These five criteria will be considered when decisions are made as to whether to allow regional pilots, which will run for a period of five years and benefit from funding of care not currently covered by SHI. Disease types selected are stroke, heart failure, and acute coronary syndromes. A total budget of EUR 20 million (USD 25.3 million) is earmarked for 2019 for the payment pilots.

REFERENCES

1. Assurance Maladie, http://www.ameli.fr/assures/droits-et-demarches/la-protection-universelle-maladie.php; accessed June 2019.
2. O. Nay et al., "Achieving Universal Health Coverage in France: Policy Reforms and the Challenge of Inequalities," *Lancet* 387, no. 10034 (May 28, 2016): 2236–49.
3. OECD Data, *Health Spending* (2017), https://data.oecd.org/healthres/health-spending.htm; accessed June 2019.
4. Please note that, throughout this profile, all figures in U.S. dollars (USD) were converted from euros (EUR) at a rate of about EUR 0.79 per USD, the purchasing power parity conversion rate for GDP in 2017 reported by OECD (2017) for France, https://data.oecd.org/healthres/health-spending.htm.
5. Directorate for Research, Studies, Assessment, and Statistics (DREES), *Les dépenses de santé en 2017 – Résultats des comptes de la santé – édition 2018* (Ministère des Affaires sociales et de la Santé, 2018), https://drees.solidarites-sante.gouv.fr/etudes-et-statistiques/publications/panoramas-de-la-drees/article/les-depenses-de-sante-en-2017-resultats-des-comptes-de-la-sante-edition-2018; accessed June 2019.
6. Securité Sociale (2017), http://www.securite-sociale.fr/IMG/pdf/ccss-juillet2017.pdf; accessed June 2019.
7. DREES, *Les dépenses de santé en 2017.*
8. Nay et al., "Achieving Universal Health Coverage in France."
9. Securité Sociale 2017, http ://www.securite-sociale.fr/IMG/pdf/ccss-juillet2017.pdf ; accessed June 2019.
10. DREES, *Portrait des professionnels de santé*, Série Etudes et Recherche, no. 134 (Ministère des Affaires sociales et de la Santé, Feb. 2016), http://drees.social-sante.gouv.fr/IMG/pdf/ouvrage; accessed June 2019.
11. DREES, *Portrait des professionnels de santé.*
12. Cour des Comptes, *Le maintien à domicile des personnes âgées en perte d'autonomie* (Dec. 2016), https://www.ccomptes.fr/fr/publications/le-maintien-domicile-des-personnes-agees-en-perte-dautonomie.
13. DREES, *Médecins libéraux : une hausse modérée de leurs revenus entre 2011 et 2014* (Ministère des Affaires sociales et de la Santé, Nov. 2017), http://drees.solidarites-sante.gouv.fr/etudes-et-statistiques/publications/etudes-et-resultats/article/medecins-liberaux-une-hausse-moderee-de-leurs-revenus-entre-2011-et-2014; accessed June 2019.
14. OECD Health data 2017, https://www.oecd-ilibrary.org/docserver/health_glance-2017-81-fr.pdf.
15. DREES, Études et résultats, "728 000 résidents en établissements d'hébergement pour personnes âgées en 2015," (Ministère des Affaires sociales et de la Santé, 2017), http://drees.solidarites-sante.gouv.fr/etudes-et-statistiques/publications/etudes-et-resultats/article/728-000-residents-en-etablissements-d-hebergement-pour-personnes-agees-en-2015; accessed June 2019.
16. Cour des Comptes 2016, https://www.ccomptes.fr/fr/publications/le-maintien-domicile-des-personnes-agees-en-perte-dautonomie; accessed June 2019.
17. Vie publique, *Espérance de vie : toujours de fortes inégalités selon le niveau de revenus,* (2018), https://www.vie-publique.fr/actualite/alaune/esperance-vie-toujours-fortes-inegalites-selon-niveau-revenus.html; accessed June 2019.
18. Vie publique.
19. Vie publique.
20. DREES, *L'état de santé de la population en France,* (Ministère des Affaires sociales et de la Santé, 2017), http://drees.solidarites-sante.gouv.fr/IMG/pdf/esp2017.pdf; accessed June 2019.
21. Ministère de la Santé, "Instruction N° SG/DSSIS/DGOS/DGCS/CNAM/2018/72 du 13 mars 2018 relative à l'accompagnement en région de la généralisation du dossier médical partagé (DMP)" (2018), http://circulaire.legifrance.gouv.fr/pdf/2018/04/cir_43291.pdf; accessed June 2019.
22. Zeynep Or et al., *Évaluation d'impact de l'expérimentation Parcours santé des aînés (Paerpa)* (Institut de recherche et documentation en économie de la santé (IRDES), 2018), https://www.irdes.fr/recherche/questions-d-economie-de-la-sante/235-evaluation-d-impact-de-l-experimentation-parcours-sante-des-aines-paerpa.pdf; accessed June 2019.
23. Assurance Maladie, *Dossier medical partagé: Le service est désormais disponible pour tous* (Nov. 6, 2018) https://www.ameli.fr/fileadmin/user_upload/documents/DP_DMP.pdf; accessed June 2019.
24. DREES, *Les dépenses de santé en 2017.*
25. Assurance Maladie, *Améliorer la qualité du système de santé et maîtriser les dépenses: Propositions de l'Assurance Maladie pour 2019* (2018), https://www.ameli.fr/fileadmin/user_upload/documents/rapport-charges-et-produits-2019_cp19_01.pdf.

The German Health Care System

Miriam Blümel and Reinhard Busse
Department of Health Care Management, Technische Universität Berlin

Health insurance is mandatory in Germany. Approximately 86 percent of the population is en-rolled in statutory health insurance, which provides inpatient, outpatient, mental health, and prescription drug coverage. Administration is handled by nongovernmental insurers known as sickness funds. Government has virtually no role in the direct delivery of health care. Sickness funds are financed through general wage contributions (14.6%) and a dedicated, supplementary contribution (1% of wages, on average), both shared by employers and workers. Copayments apply to inpatient services and drugs, and sickness funds offer a range of deductibles. Germans earning more than $68,000 can opt out of SHI and choose private health insurance instead. There are no government subsidies for private insurance.

How does universal health coverage work?

Chancellor Otto von Bismarck's Health Insurance Act of 1883 established the first social health insurance system in the world. At the beginning, health insurance coverage was restricted to blue-collar workers. In 1885, 10 percent of the population was insured and entitled to cash benefits in case of illness (50% of wages for a maximum of 13 weeks), death, or childbirth. While initially limited, coverage gradually expanded. The final step toward universal health coverage occurred in 2007, when health insurance, either statutory or private, was mandated for all citizens and permanent residents. Today's system provides coverage for the entire population, along with a generous benefit package.

Health insurance is provided by two subsystems: statutory health insurance (SHI), consisting of competing, not-for-profit, nongovernmental health insurance plans known as sickness funds; and private health insurance.

Long-term care services are covered separately under Germany's mandatory, statutory long-term care insurance (LTCI).

Unlike those in many other countries, sickness funds and private health insurers, as well as long-term care insurers, use the same providers. In other words, hospitals and physicians treat all patients regardless of whether they have SHI or private insurance.

Role of government: The German health care system is notable for the sharing of decision-making powers among the federal and state governments and self-regulated organizations of payers and providers (see exhibit).

Within Germany's legal framework, the federal government has wide-ranging regulatory power over health care but is not directly involved in care delivery. The Federal Joint Committee, which is supervised by the Federal Ministry of Health, determines the services to be covered by sickness funds. To the extent possible, coverage decisions are based on evidence from comparative-effectiveness reviews and health technology (benefit-risk) assessments.

The Federal Joint Committee also sets quality measures for providers and regulates ambulatory care capacity (the number of SHI-contracted physicians practicing), using needs-based population–physician ratios.

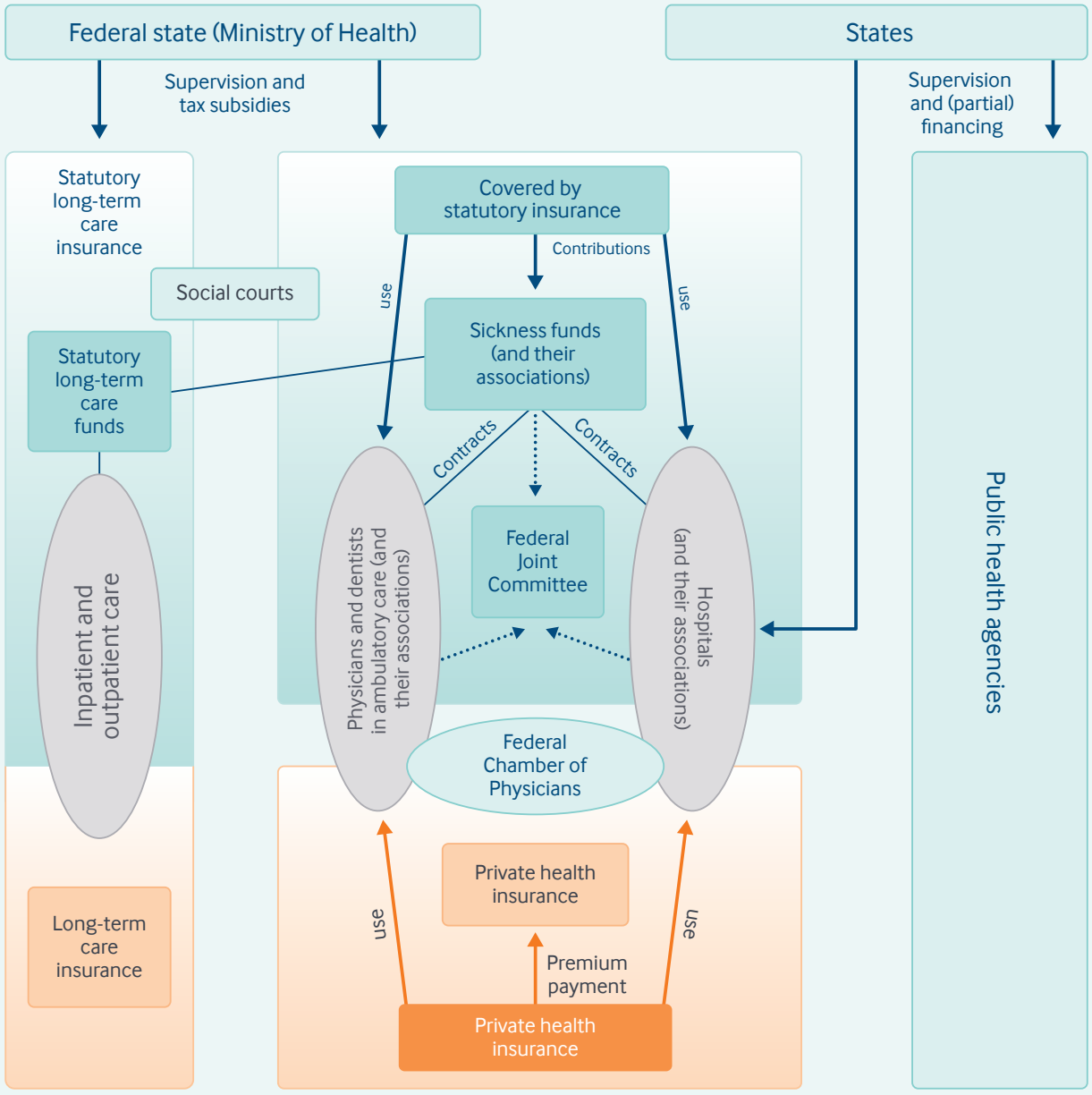
The Federal Joint Committee has 13 voting members: five representatives from associations of sickness funds, five from associations of providers, and three unaffiliated members. Five patient representatives have an advisory role but no vote. However, representatives of patient organizations have the right to participate in other decision-making bodies, including subcommittees of the Federal Joint Committee.

The Federal Association of Sickness Funds works with the Federal Association of Statutory Health Insurance Physicians and the German Hospital Federation to develop the ambulatory care fee schedule for sickness funds and the diagnosis-related group (DRG) catalog, which are then adopted by bilateral joint committees. Germany's state governments also play an important administrative role. The 16 state governments determine hospital capacity and finance hospital investments. States also supervise public health services.

Regional associations of SHI-contracted physicians are required by law to guarantee the local availability of ambulatory services for all specialties in urban and rural areas. These regional associations also negotiate ambulatory physicians' fee schedules with sickness funds.

Role of public health insurance: In 2017, total health expenditures made up 11.5 percent of the gross domestic product (GDP). Of this health spending, 74 percent was publicly funded, and most of that spending (57% of total) went toward SHI.

ORGANIZATION OF THE HEALTH SYSTEM IN GERMANY



Source: Adapted from R. Busse and M. Blümel, "Germany: Health System Review," *Health Systems in Transition,* vol. 16, no. 2, 2014, p. 20.

About 88 percent of the population receives primary coverage through sickness funds, and 11 percent through private insurance. There were 109 sickness funds in January 2019.[1]

As of 2019, all employed citizens (and other groups such as pensioners) earning less than EUR 60,750 (USD77,985) per year are mandatorily covered by SHI.[2] Individuals whose gross wages exceed the threshold, as well as the self-employed who were previously covered by SHI, can elect to remain in the publicly financed scheme (as 75% do) or to purchase substitutive private health insurance. Civil servants are exempt from SHI; their private insurance costs are partly refunded by their employer. Military members, police, and other public-sector employees are covered under small programs that are separate from SHI. Visitors are not covered through German SHI. Refugees and undocumented immigrants are covered by social security in cases of acute illness and pain, as well as pregnancy and childbirth.

Sickness funds are financed through compulsory wage contributions levied as a percentage of gross wages up to a ceiling. Dependents (nonearning spouses and children) are covered free of charge. Since 2016, the legally set uniform contribution rate has been 14.6 percent of gross wages, shared equally by the employer and employees. As of 2019, earnings above EUR 54,450 (USD 69,897) per year are exempt from contribution.

The wage contributions are centrally pooled in a health fund (*Gesundheitsfonds*) and reallocated to individual sickness funds. A risk-adjusted capitation formula is used, accounting for age, sex, and morbidity from 80 chronic and serious illnesses.

In addition to compulsory wage contributions, a supplementary, income-dependent contribution is paid directly to the sickness funds, the rate of which is determined by the fund.[3] For 2019, the average supplementary contribution rate is estimated at 1.0 percent.[4]

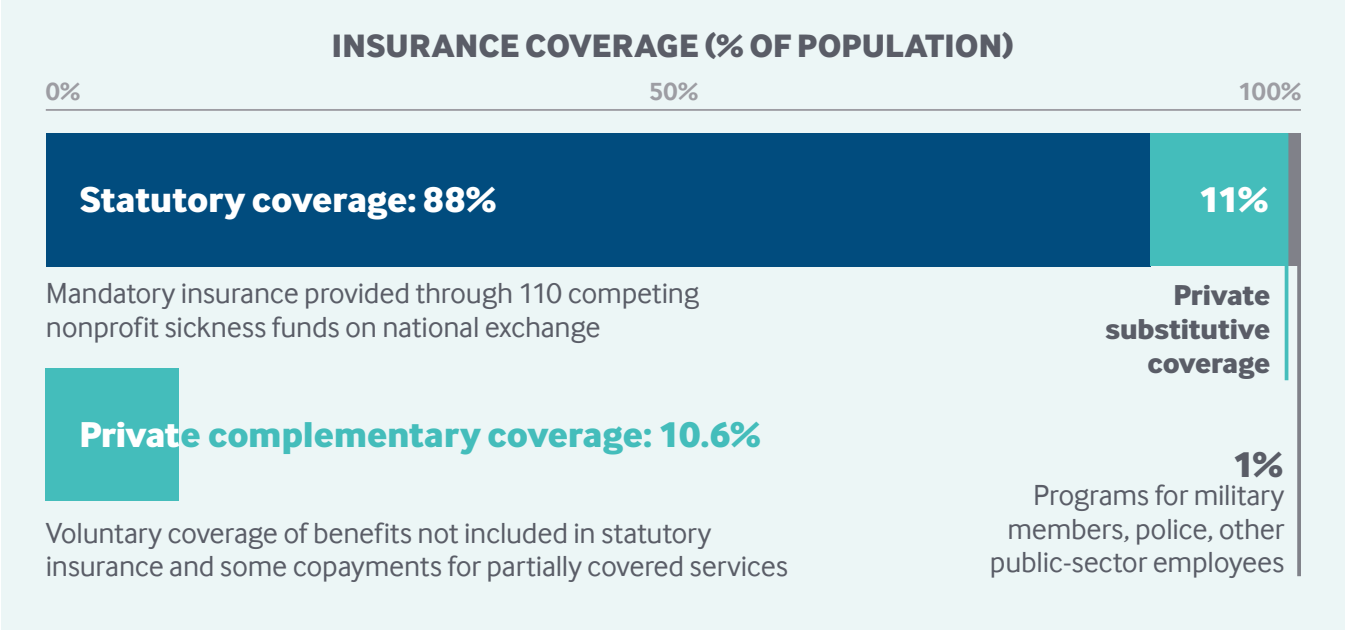
Role of private health insurance: In 2017, private health insurance accounted for 8.4 percent of total health expenditures.[5] This includes substitutive coverage purchased by individuals who are exempt from or can opt out of SHI (such as higher-income individuals) as well as supplementary policies bought by sickness fund enrollees.

In 2017, 8.75 million people were covered through substitutive private health insurance.[6] In June 2018, there were 41 substitutive private health insurance companies in Germany, of which 25 were for profit.[7]

The privately insured pay a risk-related premium, with separate premiums for dependents; risk is assessed only on entry, and contracts are based on lifetime underwriting. Private health insurance is especially attractive for young people with good incomes, as insurers may offer them contracts with a more extensive range of services and lower premiums.

For sickness fund enrollees, private insurance plays a mixed complementary and supplementary role, covering minor benefits not covered by SHI, including some copayments (like for dental care) and private hospital rooms.

Private health insurance is regulated by the Ministry of Health and the Federal Financial Supervisory Authority to ensure that the insured do not face large premium increases as they age and are not overburdened by premiums if their income decreases. The federal government determines provider fees under substitutive, complementary, and supplementary private insurance through a fee schedule. These fees tend to be higher than SHI fees. There are no government subsidies for private insurance.



Services covered: SHI covers the following:

- Preventive services, including regular dental checkups, child checkups, basic immunizations, chronic disease checkups, and cancer screenings at certain ages
- Inpatient and outpatient hospital care

- Physician services
- Mental health care
- Dental care
- Optometry
- Physical therapy
- Prescription drugs, except for those explicitly excluded by law (mainly so-called lifestyle drugs like appetite suppressants) and those excluded following an unfavorable benefit-risk assessment
- Medical aids
- Rehabilitation
- Hospice and palliative care
- Maternity care
- Sick leave compensation.

(See also the " Long-term care and social supports" section for long-term care benefits.)

This broad framework for SHI benefits is defined by law; however, specifics are determined by the Federal Joint Committee.

Private benefit packages purchased by higher-income earners who opt out of SHI may be more extensive.

Cost-sharing and out-of-pocket spending: Out-of-pocket spending accounted for 13.5 percent of total health spending in 2017, and most individual spending went to nursing homes, pharmaceuticals, and medical aids.[8]

Copayments are determined by federal legislation and apply at the national level (see table below).

To compete for patients, sickness funds offer a range of deductibles and no-claims bonuses. Preventive services do not count toward the deductible, and there are no copayments for recommended preventive services (such as cancer screenings at certain ages).

TYPICAL PATIENT COPAYMENTS AND SAFETY NETS

SERVICE	FEES PER ENCOUNTER/ SERVICE	MAXIMUM OUT-OF-POCKET COSTS PER YEAR	SAFETY NET
Primary care visit	None		Children and adolescents up to the age of 18 are exempt from copayments (except for dentures, orthodontic treatment, and transportation) In addition, there is a cost-sharing cap: Copayments are limited to 2% of a household's gross annual income, or 1% for people with serious chronic illnesses who received recommended counseling or screenings prior to becoming ill
Specialist consultation	None		
Hospitalization (per day or visit) including pharmaceuticals	EUR 10.00 (USD 12.84) per day	Limited to 28 days per year	
Prescription drugs (outpatient)	For covered drugs, covered individuals pay 10% or a minimum of EUR 5.00 (USD 6.42), and a maximum of EUR 10.00 (USD 12.84) or the price of the drug, plus the difference between the price and the reference price; no copayment if the price is 30% lower than the reference price		
Prescribed medical devices	EUR 5.00 to EUR 10.00 (USD 6.42 to USD 12.84)		

Physicians who contract with sickness funds are not allowed to charge above the fee schedule for services in the SHI benefit catalogue. However, a list of individual health services outside the comprehensive range of coverage may be offered for a fee to patients paying out of pocket.

Safety nets: The unemployed contribute to SHI in proportion to their unemployment entitlements. For the long-term unemployed, the government contributes on their behalf. In addition, copayment caps and exemptions (see table above) help reduce the out-of-pocket burden on Germans.

How is the delivery system organized and how are providers paid?

Physician education and workforce: About 35 public universities and five private ones offer degrees in medicine. Studying at public universities is free, while private institutions sometimes require tuition fees ranging from EUR 6,000 (USD 7,702) to EUR 11,500 (USD 14,763) per semester. The minimum qualifications for a medical degree are determined at the federal level by the Licensing Regulations for Physicians, state laws, and individual university requirements. Specialization requirements are regulated and enforced by the medical chambers within each state.

Primary and outpatient specialist care: General practitioners (GPs) and specialists in ambulatory care typically work in their own private practices—around 56 percent in solo practice and 33 percent in dual practices. In 2017, there were about 2,500 multispecialty clinics, where some 18,000 of Germany's ambulatory care physicians (11%) work. Most physicians working in multispecialty clinics are salaried employees. Some specialized outpatient care is provided by hospital specialists, including treatment of rare, severe, or progressive diseases as well as highly specialized procedures.

The total number of ambulatory care physicians and psychotherapists is more than 170,000.[9] In 2017, family physicians, including GPs, internists, and pediatricians, accounted for 45 percent of self-employed, SHI-contracted ambulatory care physicians (57,600 of roughly 129,000), while 55 percent (71,400) were specialists.

Most physicians employ medical assistants, while other nonphysicians (such as physiotherapists) have their own premises. Advanced practice nurses have not yet prevailed in primary care; however, there are an increasing number of medical assistants who complete further training as care managers.

Individuals have free choice among GPs and specialists. Registration with a family physician is not required, and GPs have no formal gatekeeping function. However, sickness funds are required to offer members the option of enrolling in a family physician care model, which has been shown to provide better services than traditional care approaches and often provides incentives for complying with gatekeeping rules.

Under SHI, GPs and specialists are generally reimbursed on a fee-for-service (FFS) basis according to a uniform fee schedule that is negotiated between sickness funds and regional associations of physicians. The law requires SHI-contracted ambulatory physicians to be members of these regional associations, which act as financial intermediaries between physicians and sickness funds and are responsible for coordinating care requirements within their region.

The associations receive monies from sickness funds in the form of annual capitations. The physicians then bill the associations according to the SHI fee schedule. However, physician payments are limited to a predefined quarterly maximum number of patients per practice and reimbursement points per patient, setting quarterly thresholds for the number of patients and of treatments per patient for which a physician can be reimbursed. If physicians exceed the quarterly thresholds, they are paid considerably less for any additional services provided. This can lead physicians to postpone nonurgent patient visits once they reach the thresholds, which means patients may have longer appointments wait times at the end of each quarter.

For private patients, GPs and specialists are also paid on a fee-for-service basis, but private tariffs are usually higher than the tariffs in the SHI fee schedule.

The average SHI reimbursement for a family physician is more than EUR 200,000 (USD 256,739) per year. This must cover the costs of operating a practice, including personnel, etc. Physicians may also earn income from privately insured patients.

The average SHI reimbursement for ambulatory care specialists is about the same as for GPs. But reimbursement varies widely across specialties, depending on the specialty, from EUR 77,000 (USD 98,845) for a psychotherapist to EUR 367,000 (USD 471,117) for a radiologist, not including private health insurance reimbursements and direct patient payments.[10]

Pay-for-performance has not yet been established. Financial incentives for care coordination can be part of integrated-care contracts, but are not routinely implemented. The only regular financial incentive that GPs receive is a fixed annual bonus

(EUR120, or USD154, in 2016) for patients enrolled in a disease management program, in which physicians provide patient training and document patient data. Bundled payments are not common in primary care. But a regional shared-savings initiative, called Healthy Kinzigtal (named for a valley in southwest Germany), offers primary care physicians and other providers financial incentives for integrating care across providers and services.

Administrative mechanisms for direct patient payments to providers: Copayments or payments for services not included in the SHI benefit package are paid directly to the provider. In cases of private health insurance, patients pay up front and submit claims to the insurance company for reimbursement.

After-hours care: After-hours care is organized by the regional associations to ensure access to ambulatory care around the clock. After-hours care assistance is available mainly through a nationwide telephone hotline. However, physicians are obliged to provide after-hours care in their practices, with differing regional regulations. In some areas, such as Berlin), after-hours care has been delegated to hospitals. The patient is given a report of the visit afterwards to hand to his or her GP.

There is also a tight network of emergency care providers (under the responsibility of the municipalities). Payment for ambulatory after-hours care is based on fee schedules, with differences in the amount of reimbursement by SHI and private health insurance.

Hospitals: Public hospitals make up about half of all beds, while private not-for-profits account for about a third. The number of private, for-profit hospitals has been growing in recent years (now accounting for about one-sixth of all beds). All hospitals are staffed principally by salaried physicians. Physicians in hospitals (similar to U.S. hospitalists) are typically not allowed to treat outpatients, but exceptions are made if necessary care cannot be provided by office-based specialists. Senior doctors can treat privately insured patients on an FFS basis. Hospitals can also provide certain highly specialized services on an outpatient basis.

Inpatient care is paid per admission through a system of DRGs, which are revised annually. Currently, there are around 1,300 DRG categories. DRGs cover all services and all physician costs. Highly specialized and expensive services like chemotherapy, as well as new technologies, can be reimbursed through supplementary fees. Other payment systems like pay-for-performance or bundled payments have yet to be implemented in hospitals.

Mental health care: Acute psychiatric inpatient care is provided largely by psychiatric wards in general (acute) hospitals. The number of hospitals providing care only for patients with psychiatric and/or neurological illnesses is low.

In the ambulatory care sector, there were about 38,000 office-based psychiatrists, neurologists, and psychotherapists in 2017.[11] Qualified GPs can provide basic psychosomatic services. Ambulatory psychiatrists also coordinate a set of SHI-financed benefits called sociotherapeutic care (which requires referral by a GP), intended to encourage the chronically mentally ill to access needed care and to avoid unnecessary hospitalizations. To further promote outpatient care for psychiatric patients (particularly in rural areas with a low density of ambulatory psychiatrists), hospitals can be authorized to offer treatment in outpatient psychiatric departments.

Long-term care and social supports: Statutory LTCI is mandatory. People typically get statutory LTCI from the same insurers that provide SHI. Employees share the contribution rate of 3.05 percent of gross salary with their employers; people without children pay an additional 0.25 percent.

Everybody with a physical or mental illness or disability (who has contributed for at least two years) can apply for LTCI benefits, which are:

- Dependent on an evaluation of individual care needs by the SHI Medical Review Board, which leads either to a denial of benefits or to an assignment to one of five levels of care
- Limited to certain maximum amounts, depending on the level of care.

Beneficiaries can choose between free or discounted long-term care services and cash payments. Around a quarter of LTCI expenditures go toward cash payments. Both home and institutional care are provided almost exclusively by private not-for-profit and for-profit providers.

As benefits usually cover approximately only 50 percent of institutional care costs, people are advised to buy supplementary private LTCI. In 2016, around 3.4 million Germans with SHI and private health insurance also had supplementary private LTCI.

As a separate public benefit, family caregivers get financial support through continuing payment of up to 50 percent of care costs.

Of the approximately 2.9 million recipients of long-term care in 2015, 48 percent were cared for at home by relatives, 24 percent received home care supplied by ambulatory care service providers, and 27 percent were treated as inpatients in nursing homes.

Hospice care is partly covered by LTCI if the SHI Medical Review Board has determined a care level. Medical services or palliative care in a hospice are covered by SHI. The number of inpatient facilities in hospice care has grown significantly over the past 15 years, to 235 hospices and 304 palliative care wards nationwide in spring 2016.[12]

What are the major strategies to ensure quality of care?

Quality of care is addressed through a range of measures broadly defined by law and in more detail by the Federal Joint Committee. The Institute for Quality Assurance and Transparency (IQTiG) is responsible for measuring and reporting on quality of care and provider performance on behalf of the Federal Joint Committee. In addition, the institute develops criteria for evaluating certificates and quality targets and ensures that the published results are comprehensible to the public. All hospitals are required to publish findings on selected indicators, as defined by the IQTiG, to enable hospital comparisons. There is a mandatory quality reporting system for the roughly 1,600 acute-care hospitals, in which data of 290 publicized process and outcome indicators across 30 treatment areas are collected. Based on these data, sickness funds and the White List (*Weisse Liste*), a nonpartisan online tool, report outcomes to help patients choose hospitals. Indicators for quality-related hospital accreditation and payment are currently being developed.

Nursing homes and home care agencies are assessed by the regional SHI Medical Review Boards for, among other things, care deficits. The results of these quality checks are published in transparency reports. In addition, scores in nursing care are created based on these checks and surveys of nursing home residents and employees.

Structural quality is further assured by the requirement that providers have a quality management system, by the stipulation that all physicians continue their medical education, and by health technology assessments for drugs and procedures. For instance, all new diagnostic and therapeutic procedures applied in ambulatory care must receive a positive evaluation for benefit and efficiency before they can be reimbursed by sickness funds. In addition, the Institute for Quality and Efficiency in Health Care (IQWiG), an independent scientific institute, is legally charged with evaluating the cost-effectiveness of drugs with added therapeutic benefits.

Although there is no revalidation requirement for physicians, many institutions and health service providers include complaint management systems as part of their quality management programs. This system became obligatory for hospitals in 2013. At the state level, professional providers' organizations are urged to establish complaint systems and arbitration boards for the extrajudicial resolution of medical malpractice claims.

The Robert Koch Institute, a governmental agency subordinate to the Federal Ministry of Health and responsible for the control of infectious diseases and for health reporting, has conducted national patient surveys and published epidemiological, public health, and health care data. Disease registries for specific diseases, such as certain cancers, are usually organized regionally. As part of the National Cancer Plan, the federal government passed a bill that mandated implementation of standardized cancer registries in all states by 2018 to improve the quality of cancer care. Full implementation, however, has yet to occur.

Disease management programs ensure quality of care for people with chronic illness. These programs are modeled on evidence-based treatment recommendations, with mandatory documentation and quality assurance.

Nonbinding clinical guidelines are produced by the Physicians' Agency for Quality in Medicine and other professional societies.

What is being done to reduce disparities?

Compared to percentages in other European countries, the share of population reporting an unmet need for medical care is very low (0.3%), ranging between 0.8 percent in the lowest income quintile and 0.1 percent in the highest income quintile in 2017.[13] This suggests good access with few disparities.

The Health Monitor (*Gesundheitsmonitor*) was a national initiative of not-for-profit organizations and sickness funds. To assess the performance of the health care system, it regularly conducted studies from the patient perspective—for example, on the availability of information, experiences with health care, and the progress of health system reforms. The Health Monitor, which last conducted a study in 2016, ceased to exist after 15 years. A comparable survey on health access has not been provided.

Strategies to reduce health disparities are delegated mainly to public health services, and the levels at which they are carried out differ among states. Health disparities are implicitly mentioned in the national health targets. A network of more than 120 health-related institutions, including sickness funds and their associations, promotes the health of the socially deprived.[14] Primary preventive care is mandatory by law for sickness funds; detailed regulations are delegated to the Federal Association of Sickness Funds, which has developed guidelines regarding need, target groups, and access, as well as procedure and methods. Sickness funds support 22,000 health-related programs in nurseries, schools, and other setting.[15]

What is being done to promote delivery system integration and care coordination?

Many efforts to improve care coordination have been implemented; for example, sickness funds offer integrated care contracts and disease management programs for chronic illnesses to improve care for chronically ill patients and to improve coordination among providers in the ambulatory sector. In December 2017, 9,173 registered disease management programs for six indications had enrolled about 6.8 million patients (more than 9% of all the SHI-insured).[16] There is no pooling of funding streams by the health and social care sectors.

Since 2016, the Innovation Fund has been promoting new forms of cross-sectoral and integrated care (also for vulnerable groups) with an annual funding of EUR300 million, or USD382 million (including EUR75 million, or USD95 million, for evaluation and health services research). Funds are awarded through an application process overseen by the Federal Joint Committee.[17] So far, the fund has sponsored care models in structurally weak and rural regions and care models using telehealth.

What is the status of electronic health records?

Since 2015, electronic medical chip cards have been used nationwide by all the SHI-insured; they encode information including the person's name, address, date of birth, and sickness fund, along with details of insurance coverage and the person's status regarding supplementary charges.[18] Patients can decide whether they want clinical data, such as on medications, to be stored and whether these are to be passed on to their physician.

In 2015, Parliament passed a law for secure digital communications and health care applications; the E-Health Act provides concrete deadlines for implementing infrastructure and electronic applications (such as documentation of willingness to donate organs) and introduces incentives and sanctions if schedules are not adhered to.

SHI physicians receive additional fees for sharing electronic medical reports with other providers (since 2016–2017), collecting and documenting emergency records (since 2018), and managing and reviewing basic insurance claims data online. In the future, SHI physicians who do not participate in online review of the basic insurance claims data will receive reduced remuneration.

Furthermore, to ensure greater safety in drug therapy, patients who use at least three prescribed drugs simultaneously will receive an individualized medication plan. In the medium term, this medication plan will be included in the electronic medical record.[19]

How are costs contained?

Recently, there has been a shift away from reliance on overall budgets for ambulatory physicians and hospitals and collective regional prescription caps for physicians, toward an emphasis on quality and efficiency. The Hospital Care Structure Reform Act of 2016 aims not only to link hospital payments to good service quality but also to reduce payments for low-value services. Currently, the IQTiG works on preparing appropriate concepts and recommendations for the Federal Joint Committee.

To enhance competition, some purchasing power has been handed over to the individual sickness funds instead of relying on collective contracts with regional associations. For example, the funds can now selectively negotiate integrated-care contracts with providers and negotiate rebates with pharmaceutical companies.

All drugs, both patented and generic, are placed into groups with a reference price serving as a maximum level for reimbursement, unless an added medical benefit can be demonstrated. For new drugs with added benefit (as evaluated by IQWiG and decided on by the Federal Joint Committee), the Federal Association of Sickness Funds negotiates a reimbursement price, based on the manufacturer's price, that is applied to all patients. In addition, rebates are negotiated between individual sickness funds and pharmaceutical manufacturers to lower prices below the reference price.

What major innovations and reforms have recently been introduced?

After a period of active health reform in several areas between 2012 and 2016, new reform debates and proposals stagnated until spring 2018. One of the reasons is that after the federal elections in September 2017, it took six months of difficult talks and political insecurity to again form a grand coalition between political parties (Christian Democrats and Social Democrats). The first new bill introduced in 2018 (the SHI-Contribution Relief Law, or *GKV-Versichertenentlastungsgesetz*) aims to reduce the mandatory contributions that individuals in SHI pay every month.[20] While the general contribution of 14.6 percent has been equally shared between employers and employees since 2015, the supplementary contribution is paid by employees only. The law plans to reinstate the equal split of general and supplementary contributions between employers and employees. Furthermore, the law stipulates halving the reference amount used to calculate the minimum contribution for the self-employed insured. Until now, independent of their actual income, the self-employed have paid a contribution based on expected minimum income of EUR 221 (USD 284) per month. This is unmanageable for a large proportion of small-business owners and increases their risk of having no health insurance.[21]

Furthermore, the Ministry of Health has recently issued a decree on minimum staffing requirements for nurses in hospitals. The maximum number of patients per nurse has been defined for hospital units where nursing staff is particularly needed — intensive care, geriatric, cardiology, and trauma surgery — to guarantee patient safety. The regulation went into effect January 2019. To further expand the capacities of nurses in hospitals and in long-term care and to reform salaries and working conditions for nurses, the Nursing Staff Strengthening Act was enacted in September 2018.[22]

REFERENCES

1. Federal Association of Sickness Funds, *Kennzahlen der gesetzlichen Krankenversicherung*. https://www.gkv-spitzenverband.de/gkv_spitzenverband/presse/zahlen_und_grafiken/zahlen_und_grafiken.jsp; accessed July 9, 2018.
2. Please note that, throughout this profile, all figures in U.S. dollars were converted from euros at a rate of about EUR 0.779 per USD, the purchasing power parity conversion rate for GDP in 2017 reported by OECD (2018) for Germany. Organisation for Economic Co-operation and Development (OECD) (2018), "Purchasing power parities (PPP)" (indicator). DOI: 10.1787/1290ee5a-en; accessed July 16, 2018.
3. R. Busse and M. Blümel, "Germany: Health System Review," *Health Systems in Transition*, 2014 16(2):1–296. http://www.euro.who.int/__data/assets/pdf_file/0008/255932/HiT-Germany.pdf?ua=1; accessed July 16, 2018.
4. Federal Association of Sickness Funds, Kennzahlen GKV, 2018.
5. Federal Statistical Office, Gesundheitsberichterstattung, 2016.
6. Association of Private Health Insurance Companies, *Zahlen und Fakten*. https://www.pkv.de/service/zahlen-und-fakten/; accessed July 16, 2018.
7. Association of Private Health Insurance Companies, *Zahlen und Fakten*.
8. Federal Statistical Office, Gesundheitsberichterstattung, 2016.
9. Federal Association of SHI Physicians, *Gesundheitsdaten. Zahlen, Trends und Analysen*. http://www.kbv.de/html/gesundheitsdaten.php; accessed July 2, 2018.
10. Federal Association of SHI Physicians, *Gesundheitsdaten. Zahlen, Trends und Analysen*.
11. Federal Association of SHI Physicians, *Gesundheitsdaten. Zahlen, Trends und Analysen*.
12. German Hospice and Palliative Association, *Stationäre Hospize für Erwachsene, stationäre Hospize für Kinder, Jugendliche und junge Erwachsene sowie Palliativstationen in Deutschland – Daten zur Entwicklung und zum aktuellen Stand*. http://www.dhpv.de/tl_files/public/Service/statistik/20160411_Bericht_StatHospizePalliativ.pdf; accessed July, 2018.
13. Eurostat, *Self-reported unmet needs for medical examination by sex, age, main reason declared and income quintile*. http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hlth_silc_08&lang=en; accessed October 17, 2018.
14. *Cooperative Alliance National Health Targets* (2016), Gesundheitsziele.de. http://www.gesundheitsziele.de/; accessed July, 2018.
15. Federal Association of Sickness Funds, Kennzahlen der GKV, 2018.
16. Federal Social Insurance Office, *Zulassung der strukturierten Behandlungsprogramme durch das Bundesversicherungsamt*. http://www.bundesversicherungsamt.de/weiteres/disease-management-programme.html; accessed July 16, 2018.
17. Federal Joint Committee, *Der Innovationsfonds und der Innovationsausschuss beim Gemeinsamen Bundesausschuss*. https://innovationsfonds.g-ba.de/; accessed July 16, 2018.
18. Company for Telematics Applications for the Electronic Health Card, *Elektronische Gesundheitskarte*. https://www.gematik.de; accessed July 16, 2018.
19. Federal Ministry of Health, *Gesetze und Verordnungen*. http://bmg.bund.de/; accessed June 27, 2018.
20. Federal Ministry of Health, *Gesetze und Verordnungen*.
21. Health Systems and Policy Monitor, Germany. http://www.hspm.org/countries/germany28082014/countrypage.aspx; accessed June 27, 2018.
22. Federal Ministry of Health, *Gesetze und Verordnungen*. http://bmg.bund.de/; accessed July 16, 2018.

The Indian Health Care System

Indrani Gupta, *Institute of Economic Growth, Delhi*

In collaboration with Nishali Patel, Policy Fellow, International Health Systems, London School of Economics

All Indian citizens can get free outpatient and inpatient care at government facilities. Under India's decentralized approach to health care delivery, the states are primarily responsible for organizing health services. Because of severe shortages of staff and supplies at government facilities, many households seek care from private providers and pay out-of-pocket. For low-income people, the government recently launched the tax-financed National Health Protection Scheme (Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana, or PM-JAY), which allows them to also get cashless secondary and tertiary care at private facilities. There are also a handful of health insurance arrangements for specific population groups like government employees and factory workers. Private voluntary insurance is available, but uptake is limited.

How does universal health coverage work?

The constitution of India obliges the government to ensure the "right to health" for all.[1] Each state is required to provide free universal access to health care services. However, health care in India has been chronically underfunded.

Historically, there have been several government-funded health insurance schemes intended to improve coverage for specific population groups, with variations across states. One important scheme aimed at reducing financial catastrophe and vulnerability for lower-income populations is the National Health Insurance Program (Rashtriya Swasthya Bima Yojana, or RSBY), launched in 2008. As of 2016, some 41 million families were enrolled in RSBY.[2] However, evidence indicates that the scheme has not significantly reduced out-of-pocket spending. It is now being subsumed under the PM-JAY.

With ineffective public insurance schemes and the low uptake of commercial insurance, only around 37 percent of the population were covered by any form of health coverage in 2017–2018.[3] Further systemic barriers to access include long wait times in hospitals, the perceived low quality of public health services, and substantial workforce and infrastructure shortfalls.[4]

In March 2018, the central government approved the implementation of PM-JAY. This flagship public health initiative has been internationally recognized as a significant step toward achieving universal coverage in India.[5] The initiative offers hospital coverage for the 40 percent of the country's population that is poor or low-income. The other important initiative is to bolster preventive and promotive health care services by revamping existing primary health facilities into Health and Wellness Centres (see "Primary care," below).

Role of government: Responsibility for the governance, financing, and operation of the health system is divided between the central and state governments.

At the federal level, the Ministry of Health and Family Welfare has regulatory power over the majority of health policy decisions but is not directly involved in health care delivery. The ministry comprises two departments:

- The Department of Health and Family Welfare is responsible for organizing and delivering all national health programs, with each program headed by its own administrative body.
- The Department of Health Research is responsible for promotion of health and clinical research, development of health research and ethics guidelines, outbreak investigations, and provision of advanced research training and grants for such training.

In 2014, the government established the federal Ministry of Ayurveda, Yoga and Naturopathy, Unani, Siddha, and Homeopathy. It develops and promotes research in alternative medicine practices.

At the state level, the Directorates of Health Services and the Departments of Health and Family Welfare are responsible for organizing and delivering health care services to their populations. These include all medical care, from primary care and pharmacies to secondary and tertiary hospital care. These state bodies are also responsible for the following:

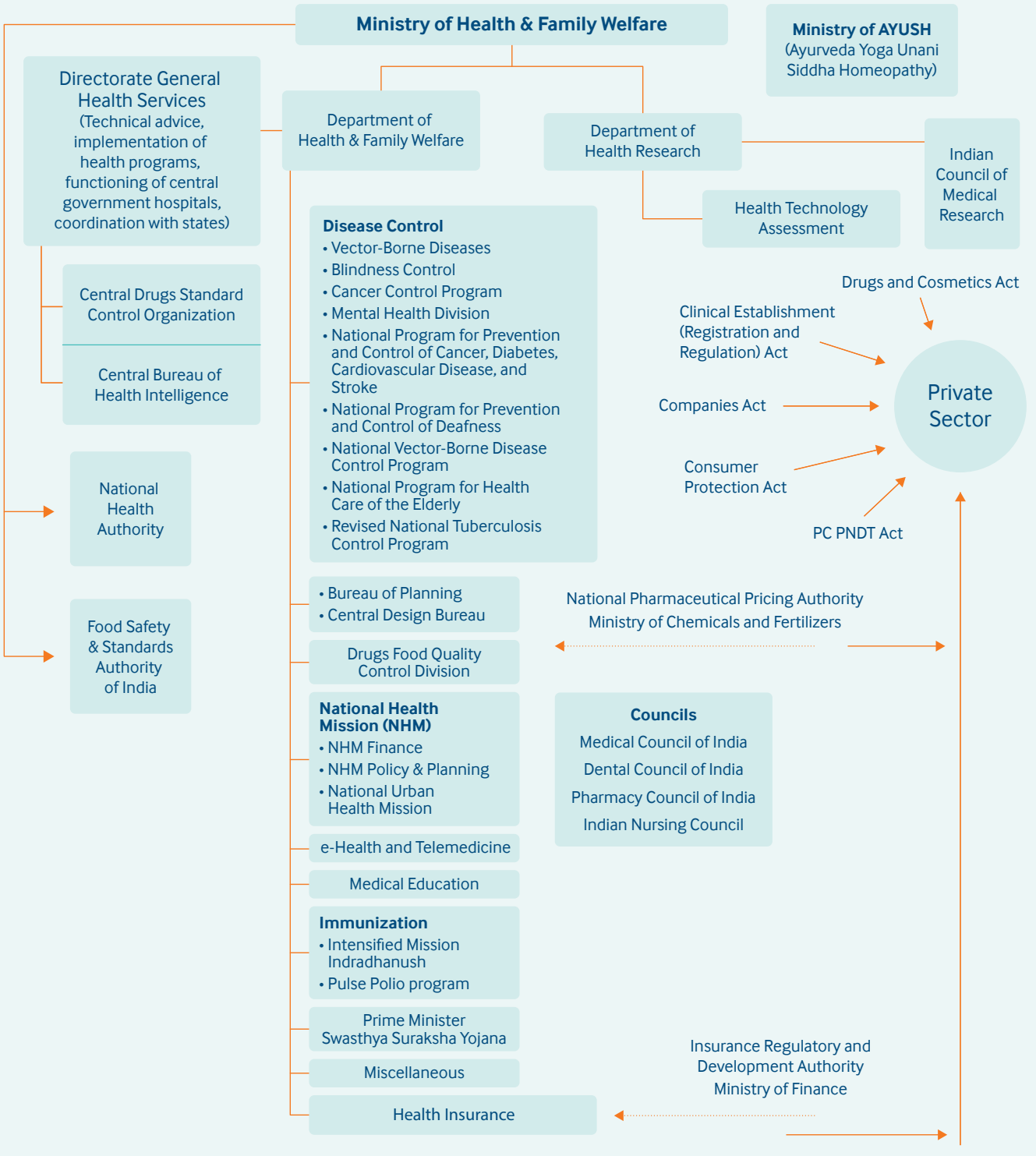
- management and monitoring of the health care workforce
- provision of federally funded national health programs
- collection of health information and statistics
- control of food and drug quality
- supervision of local health care entities and organizations
- promotion of alternative medicine practices.

Given that states are independently responsible for health care activities, there is significant nationwide variation in service delivery models, insurance coverage, availability, and access.

Some initiatives are governed and/or financed jointly by the central and state governments, such as the National Health Mission, a family welfare and population control initiative.

At the district level, Panchayati Raj (local governance) institutions are responsible for grassroots governance and administration in rural villages. These government bodies play a significant role in establishing primary health centers, and contribute to various social policies in such areas as education, agriculture, and transportation.[6]

ORGANIZATION OF THE HEALTH SYSTEM IN INDIA



Role of public health insurance: Total public and private health expenditures as a percentage of GDP are estimated at 3.9 percent, significantly lower than the world average of 9.9 percent.[7] The public sector accounts for approximately one-quarter of health expenditures.

There are various public insurance schemes, including RSBY, which provides hospital coverage for most diseases and pre-existing health conditions for individuals living below the poverty line (with a family cap of five members). Outpatient care, primary care, and high-level tertiary care are not included.

The new National Health Protection Scheme is for individuals in the bottom two income quintiles. This scheme provides INR 500,000 (USD 7,007) per family per year to cover secondary and tertiary health services, from inpatient to post-hospitalization care.[8] Eligibility is based on a household's level of deprivation as defined by the Socio-Economic Caste Census. The scheme extends coverage to approximately 100 million poor and vulnerable families. Beneficiaries are auto-enrolled in the system and, therefore, are able to obtain benefits as cashless transactions.

Funding for the public insurance schemes is divided between the central and state governments. For instance, most states are contributing a 40 percent share to the cost of the National Health Protection Scheme, with the central government providing the remaining 60 percent.

Funding for the National Health Protection Scheme has been allocated under the existing budget for the RSBY, which has doubled from 2018 to accommodate expanding public insurance costs.[9] To further support these initiatives, the cess (levy) on income tax was increased from 3 percent to 4 percent, to collect an estimated INR 110 billion (USD 1.54 billion) annually.[10]

The states also run their own health schemes, mostly along the lines of RSBY. In addition, public sector undertakings (state-owned enterprises) and autonomous government bodies like central and state universities offer health coverage to their employees.

Another important health coverage scheme is the Central Government Health Scheme, organized and run by the Ministry of Health and Family Welfare for current and retired central government employees and their dependents.[11] There are no income or wage requirements to be eligible. Coverage includes health care services for allopathic, homeopathic, and alternative medicine treatments.[12] Approximately 3.6 million beneficiaries were registered under this scheme as of late 2019.[13] Similar schemes exist for railway and defense employees.

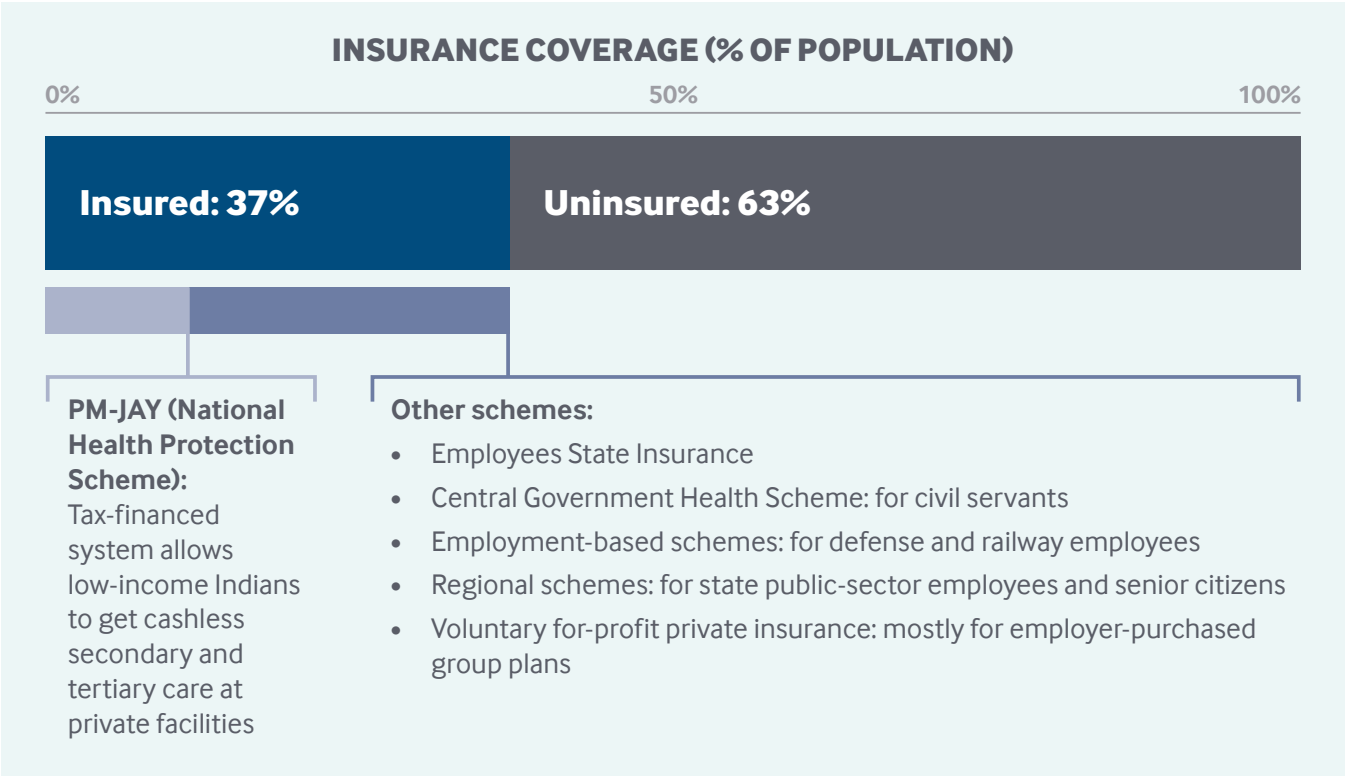
In 2013, the RSBY was extended to mine workers, while certain groups of plantation workers were subsumed under the Aam Admi Bima Yojana (AABY), a government social security scheme administered through the Life Insurance Corporation of India that provides death and disability coverage from ages 18 to 59.

An important social health insurance scheme is the Employees' State Insurance Scheme, which is organized by the Ministry of Labour and Employment for the workforces of companies with 10 or more employees. Previously, only workers employed by factories were eligible, but the scheme has been extended to companies in other industries, such as hotels, restaurants, transportation companies, newspaper establishments, and cinemas. This is India's only true health insurance scheme to which both employees and employers contribute. Currently, employees contribute 0.75 percent of their wages, while employers contribute 3.25 percent.[14] To be eligible for Employee's State Insurance, a worker must be earning INR 21,000 (USD 294) per month.[15] Coverage for workers and their families includes maternity care, as well as disability and death benefits for employment-related injuries. State governments contribute one-eighth of the medical benefit expenditures, up to an annual per-capita ceiling of INR 1,500 (USD 21). The scheme has approximately 133 million beneficiaries.[16]

Many public hospitalization schemes partner with public and private insurance companies to run the plans. The PM-JAY has offered private sector hospitals incentives to increase supply in underserved areas by providing access to funding and land for hospital construction in urban-rural and rural cities.[17]

Role of private health insurance: Thirty-six percent of insured individuals in India have private coverage, which covers only hospitalizations.

The Insurance Regulatory and Development Authority Act of 1999 allowed for private companies to enter the health insurance market.[18] The 1999 act also allowed for individuals who are not eligible for sponsored insurance schemes to purchase a private policy. Private insurance now accounts for nearly 4.4 percent of total current health expenditures.[19]



Services covered: Services covered depend on the insurance scheme. Under the National Health Protection Scheme, secondary and tertiary care are covered, but not outpatient care. The Central Government Health Scheme and Employees' State Insurance Corporation cover all types of care, including outpatient care and drugs. Under other publicly subsidized insurance coverage, all secondary, tertiary, pre-hospital, and post-hospitalization treatment are covered.

Cost-sharing and out-of-pocket spending: Citizens can get free care in public health facilities with no deductibles, co-payments, or coinsurance.

However, because government funding for health care is limited and there are accessibility issues at the existing facilities, a significant portion of outpatient and inpatient care is delivered at private, high-priced facilities, with costs typically paid out-of-pocket.[20] As a result, out-of-pocket payments have been the primary means of funding health care, accounting for 65 percent of total health expenditures in 2015–2016.[21]

A significant proportion of the population faces impoverishment due to lack of insurance and high out-of-pocket expenditures. An estimated 8 percent of the population is being pushed below the poverty line as a result of high out-of-pocket payments.[22]

The launch of the National Health Protection Scheme aims to insulate lower-income households from high health care costs by offering free care to beneficiaries in private facilities as well as public facilities.

However, the impact of the scheme will depend on demand as well as supply factors, like the availability of medicines and personnel, health infrastructure, and service quality. It will also depend on how hospitals are reimbursed and on their willingness to offer quality services at the quoted rates.

Safety nets: The various government health coverage programs offer safety nets to different populations, with the government bearing the cost of subsidies. For example, in RSBY and now the National Health Protection Scheme, the federal and state governments share the cost of premiums for each beneficiary, in addition to the cost of health services up to the coverage limit.

TYPICAL PATIENT COPAYMENTS AND SAFETY NETS			
SERVICE	**FEES PER ENCOUNTER/SERVICE**	**MAXIMUM OUT-OF-POCKET COSTS PER YEAR**	**SAFETY NET (SERVICES, POPULATIONS)**
Primary care visit	Public facilities: Free Private facilities: Variable (not regulated)	Public facilities: Low Private facilities: Variable	Beneficiaries of some government health schemes can also get cashless care in private facilities
Specialist consultation	Public facilities: Free Private facilities: Variable (not regulated)	Public facilities: Low Private facilities: Can be high	
Hospitalization (per day or visit) including pharmaceuticals	Public hospitals: Free* Private hospitals: Variable (not regulated)	Average per hospitalization: Public: INR 4,452 (USD 62) Private: INR 31,845 (USD 446)	Cashless for some schemes, including National Health Protection Scheme; for secondary and tertiary care, coverage of up to INR 500,000
Prescription drugs (outpatient)	Essential medicines list: Free* Other medicines: Patient pays full cost	Prescription drugs account for significant portion of out-of-pocket spending (28% of current health expenditures overall in 2015–16)	Schemes exist but not yet broadly implemented

* Not shown: Charges for individuals covered by Employees' State Insurance and other insurance schemes that run their own networks of hospitals, dispensaries, and clinics.

How is the delivery system organized and how are providers paid?

Physician education and workforce: Medical education is provided by both state-led institutions and private colleges. In some states, private medical colleges charge about 16 times the fees charged by government colleges.[23] Private fees for a five-year course typically range from INR 3 million to INR 5 million (USD 42,000–70,000 for undergraduate education.[24]

The Medical Council of India establishes standards for undergraduate medical education, accredits undergraduate and postgraduate medical education programs, determines equivalencies for foreign medical graduates, and maintains a general directory for all certified physicians.[25]

Primary care: Under the Health and Wellness Centres program, 150,000 subcenters (the lowest tier of the health system) across the country are being upgraded to provide comprehensive primary health care services, free essential medicines, and free diagnostic services. Nutritional support will also be provided to all beneficiaries with tuberculosis at a rate of INR 500 (USD 7) per month during treatment. Other primary health care providers include primary health centers (PHCs) and community health centers. No patient registration is required.

The PHC is the first point of contact between a village community and a medical officer. These centers provide curative and preventive services to 20,000–30,000 people and serve as a referral unit for six subcenters with four to six beds each. The community health centers serve as a referral center for four PHCs and also provide facilities for obstetric care and specialist consultations.

The three facility types differ according to whether it is in a rural or urban setting, the size of the population served, and the resources and services available.

Under the Health and Wellness Centres program, the subcenter is the first point of contact for patients. It is designed to handle maternal and child health, disease control, and health counseling for a population of 3,000 to 5,000. At least one auxiliary nurse midwife or female health worker, one male health worker, and one additional female health visitor supervise six subcenters.

All medical personnel, including primary and specialty physicians, working at public outpatient or inpatient facilities are paid fixed salaries, which vary based on area of work and level of specialization. Currently, there are no performance-based

payment incentives. However, the prime minister announced recently that all accredited social health activists will be enrolled in one of the social security schemes and provided free insurance coverage.

Physicians are allowed to operate private clinics in some states in accordance with regulations determined by the state in which they live and practice. Doctors in states where this is disallowed receive an additional non-practicing allowance payment.[26] Some government doctors violate service rules by resorting to private practice during office hours. There is also some evidence that patients have made informal payments to their physicians for services that are supposed to be provided for free, in a bid to improve the quality of their care.[27]

Outpatient specialist care: Community health centers also provide outpatient specialist care and are required to have four medical specialists (surgeon, general practitioner, gynecologist, and pediatrician) supported by paramedical and other staff. They must also have 30 beds, a laboratory, X-ray services, and other facilities. Each center covers 80,000 to 120,000 people. All outpatient specialized services not provided at community centers are referred to district hospitals.

Administrative mechanisms for direct patient payments to providers: Government or entitlement coverage schemes, such as the Central Government Health Scheme and National Health Protection Scheme, are cashless. Beneficiaries are able to obtain care at facilities enrolled in the schemes by using their smart cards.[28]

After-hours care: The India Public Health Standards determine which health care facilities are required to operate 24 hours a day, seven days a week. Depending on the facility type, specific services — like basic obstetrics — are made available at all times while others are daytime-only procedures.

After-hours care by telephone is not well established in India. However, officials are exploring the acceptability and feasibility of mobile phone consultations as a means of improving health care access in rural India and addressing workforce shortages and resource constraints.[29]

Private sector hospitals and clinics typically provide after-hours care with concomitant fees. Depending on the type of facility, some consultations and services can be provided via telephone or at home.[30,31]

Hospitals: Patients using the public health system can be referred to a district hospital, which is the terminal referral center. District hospitals offer services similar to community health centers, such as emergency care, maternity services, and newborn care, but serve larger urban centers.[32] In total, there were 763 functioning district hospitals in 2015, located largely in the most populous states.[33]

The research hospitals and education centers funded by the central and state governments offer specialized care in a variety of disciplines, such as ophthalmology, cardiothoracic surgery, neurosciences, trauma, cancer, and drug dependence.[34,35] Under the National Health Protection Scheme, some district hospitals will be upgraded to tertiary care facilities to improve access to specialized services and strengthen physician workforce capacity.[36]

Public hospitals account for only approximately 10 percent of the total number of hospitals throughout the country.[37,38] The remainder are operated almost entirely by the private for-profit sector, and a small number by charitable organizations. There has been significant growth in the number of private sector hospitals as a result of perceived poor-quality care in public facilities and the rise of medical tourism.[39]

In most public hospitals, prices are set administratively. Public district and tertiary hospitals are paid through an annual budgetary mechanism funded by either the state or central government. All private hospitals operate on a fee-for-service basis, with no standardization of service price.[40]

Mental health care: National health initiatives have established psychiatric centers within specialized public hospitals. With the launch of the National Health Protection Scheme, comprehensive mental health care will also be available for beneficiaries at newly established Health and Wellness Centre programs.

Despite recent policy measures to strengthen mental health care, resources are extremely limited. Across India, there is only one trained psychiatrist for every 250,000 people and fewer than one mental health worker for every 100,000 people.[41] In addition, few hospital beds are dedicated to inpatient psychiatric care.[42]

Most private insurance plans typically do not provide comprehensive coverage for such care.[43] In the few that do, covered treatment options usually focus on short-term psychotherapy rather than on long-term management.[44]

Long-term care and social supports: The central government launched the National Programme for Health Care of the Elderly in 2011 with the aim of improving workforce capacity for long-term care and providing dedicated health care

facilities and services to senior citizens (ages 65+) at all levels of the health care delivery system.[45] Such services are meant to be provided for free for elderly people through state primary and secondary facilities.

However, as revealed by funds utilization, there has been slow progress on implementation, indicating a continuous unmet need for comprehensive elderly care.[46] The recent launch of the National Health Protection Scheme aims to counter this trend by improving access to geriatric care at the primary level for beneficiaries.

In addition, the Ministry of Social Justice and Empowerment has launched a central scheme (Integrated Programme for Older Persons) to develop solutions to the health and emotional needs of the elderly. The scheme provides funding to state government, Panchayati Raj institutions, non-governmental organizations, and charities to establish food, shelter, and health care programs, intergenerational relationship–strengthening programs, active and productive aging programs, and institutional and non-institutional care facilities.

Some states have launched their own activities to increase access to palliative care. In Kerala, for example, the state was the first to establish a palliative-care policy, which subsequently resulted in a network of more than 60 facilities that provide low-cost and community-based hospice and palliative care.[47] This implementation model has resulted in similar policies and projects that have been launched in Assam, Maharasthra, Punjab, Haryana, and Karnataka by state governments and nongovernmental organizations.[48]

What are the major strategies to ensure quality of care?

Quality of care is addressed through legal and policy measures defined by the central and state governments.

Currently, there is no single entity that is responsible for measuring all aspects of quality of care at health care facilities. Most efforts have been focused on structural elements, such as tracking the availability of health care resources.[49] Over the years, several regulations have been enacted and authorities created at the state and national levels with the aim of protecting patients and improving quality of care.

In 2017, a centralized tracking system for district hospital performance was introduced along with public rankings of hospitals in the system based on performance.[50] However, the system's indicators for quality of care are largely based on resource availability and patient satisfaction.[51]

Health care facility accreditation is well-developed in India. The National Accreditation Board for Hospitals and Healthcare Providers is responsible for accrediting all types of health facilities. This board is a member of the International Society for Quality in Health Care, along with countries such as Australia, Canada, Egypt, Hong Kong, and the United Kingdom.[52] The accreditation criteria are based on international best practices from these member countries.

Structural quality is also ensured through mandatory continuing medical education (CME), instituted by the Medical Council of India. However, some state governments do not enforce this policy; only nine of the 26 states mandate physician participation in CME.[53]

Efforts have been made over the past decade to define standards for a number of areas related to patient care. Specifically, the National Health Systems Resource Centre provides a quality certification for all facility types in the health system. The certification is based on the National Quality Framework for Public Health Facilities, created by the Ministry of Health and Family Welfare, which has eight broad "areas of concern."[54]

Facilities that earn certifications receive financial incentives. Facilities can also get technical and capacity-building support to improve their performance through training, workshops, and courses offered by the National Health Systems Resource Centre.

The Clinical Establishments (Registration and Regulation) Act of 2010 was passed into law by the central government to register and regulate clinical establishments, while prescribing a minimum set of standards for them to adhere to. However, many states have yet to implement the law.

Other frameworks that are being used to support quality control and improvement include:

- India Public Health Standards (2008)
- My Hospital (Mera-Aspataal) (2016)
- Labour Room Quality Improvement Initiative (LaQshya) (2017)
- National Patient Safety Implementation Framework (2018–2025).

The Ministry of Health and Family Welfare has published some national standard treatment guidelines related to hospital planning, blood transfusion, and electronic health records (see "What is the status of electronic health records?", below). The National Centre for Disease Control has also published some national guidelines for the management and control of infectious diseases, as well as operational manuals for health care workers treating patients with infectious diseases. It is unclear, however, how well the guidelines are being enforced throughout the country.

The Ministry of Health and Family Welfare, in collaboration with state health departments, has developed a comprehensive quality assurance framework for public health facilities and programs. The framework comprises four interrelated activities to achieve a patient-centered health system[55]:

- instituting an organizational framework for quality improvement
- defining standards of service delivery and patient care
- continually assessing services against set standards
- improving quality by closing gaps and implementing opportunities for Improvement.

What is being done to reduce disparities?

Significant health, social, and income inequities exist across India, many of them a result of the country's diversity, rapid economic growth, and historically limited wealth redistribution.[56] There is evidence of high unmet need in access to public health services, especially among women in rural and tribal regions, who lack access to reproductive health services, neonatal care, and family planning services.[57]

No centralized system exists for monitoring and evaluating health indicators and health status.

In addition to targeting vulnerable populations under the National Health Protection Scheme, there have been a number of initiatives over the years to help poor households afford care and to promote treatment-seeking behaviors. Examples include:

- The Janani Suraksha Yojana, launched in 2005, is a centrally sponsored scheme to reduce maternal and neonatal mortality by promoting institutional delivery among poor pregnant women. It is one of the largest conditional cash transfer programs in the world.[58]
- The Health Minister's Cancer Patient Fund provides financial assistance to patients suffering from cancer.[59]
- Rashtriya Arogya Nidhi offers financial assistance to patients living below the poverty line who are suffering from life-threatening diseases.
- The Health Minister's Discretionary Grant provides financial assistance to patients with significant hospital bills.
- Mission Indradhanush provides universal immunization for all children under age 2 and pregnant women.

What is being done to promote delivery system integration and care coordination?

Patient care continues to be fragmented in India. Although there is a patient referral (gatekeeping) mechanism, it is severely underused because of overcrowding, lack of health care resources, deficient infrastructure, poor regulation of the referral system, and patients' ability to bypass primary entry points to the health system.[60]

What is the status of electronic health records?

The Ministry of Health and Family Welfare published the first national standards for electronic health records (EHRs) in 2013. An expert committee was then established to support the adoption and implementation of an EHR system throughout the country. As of 2016, however, survey results have revealed that uptake of the system has been slow as compared to other middle- and high-income countries.[61] Currently, there is no universal patient identifier.

The National Health Protection Scheme presents a new opportunity to use IT to improve quality of care and detect fraud. The program will run on a state-of-the-art system with built-in intelligence and data-processing capabilities. It Is designed to detect fraud and misuse and provide an electronic tracking mechanism for complaint and grievance redressal.[62] The new National Health Authority has already set up the PM-JAY Dashboard and other IT systems for hospital empanelment, beneficiary identification, and transaction management. There will also be a fully functional PM-JAY portal to serve as a single access point for information related to the scheme.

How are costs contained?

Cost-containment mechanisms include annual hospital budgets as well as prices for health care services, drugs, and other consumables set administratively by the central and state governments. Significant shortages in the public sector, however, have led patients to use private services, for which prices are unregulated and set far beyond the procured purchase price.[63]

The National Pharmaceutical Pricing Authority has made efforts to improve the affordability and accessibility of medicines by setting price ceilings on essential medicines and on selected commonly used medical devices.[64,65] In addition, the Department of Pharmaceuticals increased the supply of generic pharmaceuticals through the launch of the Pradhan Mantri Bhartiya Jan Aushadhi Pariyojana Kendra (PMBJP) scheme in 2008. The scheme has resulted in the establishment of *kendras,* specialized centers that sell brand quality–equivalent generic medicines at affordable prices.[66]

Given the administrative and technological shortfalls within the Indian health system, other innovative cost-containment mechanisms, such as pay-for-performance and value-based health care, have not been introduced in the public sector.

What major innovations and reforms have recently been introduced?

India has initiated a number of reforms that could have far-reaching implications for the health sector and the broader economy. These include:

- Launching Ayushman Bharat, which encompasses the National Health Protection Scheme (Pradhan Mantri Jan Arogya Yojana), for coverage of tertiary care for vulnerable populations and Health and Wellness Centres initiative for the delivery of comprehensive and integrated primary care.
- Setting up the National Health Authority to implement the PM-JAY.
- Initiating the provision of universal sanitation coverage and making the country open defecation–free through the Swachch Bharat Mission.
- Launching Intensified Mission Indradhanush 2.0 to achieve 90 percent vaccination coverage for children under 2.
- Providing clean cooking fuel under the Pradhan Mantri Ujjwala Yojana scheme.
- Providing nutritional and social support for all National Health Protection Scheme beneficiaries with tuberculosis.
- Replacing the Medical Council of India with the National Medical Commission and setting uniform standards for medical education.
- Creating a health technology assessment body (Health Technology Assessment in India) under the Department of Health Research to evaluate all medical technologies.

REFERENCES

1. Ministry of Health and Family Welfare, *The National Health Bill (working draft)*, Jan. 2009, http://www.prsindia.org/uploads/media/Draft_National_Bill.pdf; accessed Oct. 13, 2016; S. V. Thomas, "The National Health Bill 2009 and Afterwards," *Annals of Indian Academy of Neurology*, April–June 2009 12(2):79, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2812745/.
2. A. Karan, W. Yip, and A. Mahal, "Extending Health Insurance to the Poor in India: An Impact Evaluation of Rashtriya Swasthya Bima Yojana on Out of Pocket Spending for Healthcare," *Social Science & Medicine 181* (May 2017: 83–92, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5408909/.
3. National Health Profile, 2018, Ministry of Health and Family Welfare.
4. International Institute for Population Sciences, *National Family Health Survey (NFHS-4): India, 2015–16* (Ministry of Health and Family Welfare, Dec. 2017), http://rchiips.org/nfhs/NFHS-4Reports/India.pdf; and B.S. Perappadan, "Corruption Plagues Govt. Hospitals," *The Hindu* (2005), https://www.thehindu.com/todays-paper/tp-national/tp-newdelhi/corruption-plagues-govt-hospitals/article27426027.ece; accessed May 14, 2019.
5. "India's Government Launches a Vast Health-Insurance Scheme, *The Economist,* Sept. 27, 2018, https://www.economist.com/asia/2018/09/27/indias-government-launches-a-vast-health-insurance-scheme; "India's Mega Health Reforms: Treatment for Half a Billion, *The Lancet* 392, no. 10148 (Aug. 2018): 614; "WHO DG praises PM Modi, Health Minister Nadda for Ayushman Bharat Scheme," *Times of India,* Jan. 3, 2019, https://timesofindia.indiatimes.com/india/who-praises-pm-modi-health-minister-nadda-for-ayushman-bharat-scheme/articleshow/67370832.cms.
6. L. Prasad and A. Gautam, *Role of Panchayati Raj Institutions in Development of Primary Education* (SSRN, March 14, 2013), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2233460.
7. National Health Mission, *National Health Accounts, Estimates for India* (Ministry of Health and Family Welfare, Oct. 2017), https://mohfw.gov.in/sites/default/files/National%20Health%20Accounts%20Estimates%20Report%202014-15.pdf.
8. Throughout this profile, all figures in U.S. dollars (USD) were converted from Indian rupees (INR) at the rate of INR 71.36 per USD 1.00. See International Monetary Fund, https://www.imf.org/external/np/fin/data/rms_rep.aspx.
9. Ministry of Health and Family Welfare, "Fund Allocation for National Health Protection Scheme," press release, March 13, 2018; accessed Jan. 28, 2019, http://pib.nic.in/newsite/PrintRelease.aspx?relid=177367.
10. Ministry of Finance, A. Jaitley Budget 2018–2019 (Governance, Economy, and Development, Feb. 2018), https://www.indiabudget.gov.in/ub2018-19/bs/bs.pdf; accessed Jan. 28, 2019.
11. Ministry of Health and Family Welfare, "Eligibility for Joining CGHS" (2019), https://cghs.gov.in/index1.php?lang=1&level=1&sublinkid=6020&lid=3946; accessed May 19, 2019.
12. Ministry of Health and Family Welfare, "About CGHS" (2019), https://cghs.gov.in/index1.php?lang=1&level=1&sublinkid=5783&lid=3656; accessed May 19, 2019.
13. https://cghs.nic.in/dashboard/dashboardnew.jsp.
14. Ministry of Labour and Employment, "Government Reduces the Rate of ESI Contribution from 6.5 percent to 4 percent," press release, June 13, 2019, http://pib.gov.in/newsite/PrintRelease.aspx?relid=190452; accessed Sept. 12, 2019.
15. Ministry of Labour and Employment, "Employees' State Insurance Corporation: Coverage," https://www.esic.nic.in/coverage; accessed May 19, 2019.
16. Ministry of Labour and Employment, "Employees' State Insurance Corporation: Coverage."
17. Ministry of Health and Family Welfare, "Broad Guidelines for Private Investments in setting up of Hospitals in Tier 2 and Tier 3 Cities Subsequent to PMJAY, press release, http://pib.nic.in/newsite/PrintRelease.aspx?relid=187353; accessed Feb. 28, 2019.
18. R. Bhat, J. Holtz, and C. Avila, "Reaching the Missing Middle: Ensuring Health Coverage for India's Urban Poor," *Health Systems and Reform* 4, no. 2 (April 3, 2018): 125–35.
19. Ministry of Health and Family Welfare, *National Health Accounts: Estimates for India, 2014–15* (Oct. 2017), https://mohfw.gov.in/sites/default/files/National%20Health%20Accounts%20Estimates%20Report%202014-15.pdf; accessed May 27, 2019.
20. Bhat et al., "Reaching the Missing Middle."
21. Ministry of Health and Family Welfare, *National Health Accounts: Estimates for India, 2014–15.*
22. M. Lagarde and N. Palmer, "The Impact of User Fees on Access to Health Services in Low-and Middle-Income Countries," *Cochrane Database System Review* 13, no. 4 (April 13, 2011): CD009094; S.K. Mohanty et al., "Out-of-Pocket Expenditure on Health Care Among Elderly and Non-Elderly Households in India," *Social Indicators Research* 115, no. 3 (Feb. 2014): 1137–57.
23. R. Nagarajani, "High Fees in Private Medical Colleges Account for Low Quality Intake," *Times of India,* April 20, 2018.
24. "The Cost of Medical Education," *New Indian Express,* June 22, 2018, http://www.newindianexpress.com/opinions/editorials/2018/jun/22/the-cost-of-medical-education-1831722.html; accessed May 29, 2019.
25. Medical Council of India, "Structure and Function," (2017), https://www.mciindia.org/CMS/structure-function; accessed May 29, 2019.
26. N. Jaiswal, "Should Government Doctors Be Allowed to Do Private Practice?," http://www.jusdicere.co.in/blog/should-government-doctors-be-allowed-to-do-private-practice-by-nikhil-jaiswal/; accessed May 24, 2018.
27. M. Lewis, "Informal Payments and the Financing of Health Care in Developing and Transition Countries," *Health Affairs* 26, no. 4 (July 2007): 984–97.
28. S.A. Tabish, "Transforming health care in India: Ayushman Bharat-National Health Protection Mission," *International Journal of Scientific Research* 7, no. 12 (Dec. 2018), https://www.researchgate.net/publication/329908376_transforming_health_care_in_india_ayushman_bharat-national_health_protection_mission.
29. S. Bali and A.J. Singh, "Mobile Phone Consultation for Community Health Care in Rural North India," *Journal of Telemedicine and Telecare* 13, no. 8 (Dec. 1, 2007): 421–4.
30. Advino Healthcare, "Don't Want to Go to the Hospital? Let Advino Healthcare Bring All Medical Care at Your Home," https://www.advinohealthcare.com/; accessed June 3, 2019.
31. MAX@HOME, "Caring for You at Every Step of the Way," https://maxathome.in/critical-care-at-home/; accessed June 3, 2019.
32. M. Chokshi et al., "Health Systems in India," *Journal of Perinatology* 36, no. s3 (Dec. 7, 2016): S9.
33. Open Government Data (OGD) Platform India, "Functioning District Hospitals As on 31st March 2015," (2016), https://community.data.gov.in/functioning-district-hospitals-as-on-31st-march-2015/; accessed June 3, 2019.
34. All India Institute of Medical Sciences Naghpur, "The Director, All India Institute of Medical Sciences Naghpur Takes Over," https://aiimsnagpur.edu.in/; accessed June 3, 2019.
35. All India Institute of Medical Sciences, New Delhi, "About Us," https://www.aiims.edu/en.html; accessed June 3, 2019.

36. Ministry of Finance, A. Jaitley Budget 2018–2019 (Governance, Economy, and Development, Feb. 2018), https://www.indiabudget.gov.in/ub2018-19/bs/bs.pdf; accessed May 29, 2019.
37. IBEF, *Healthcare,* http://www.india-opportunities.es/archivos/publicaciones/Healthcare-January-2016.pdf; accessed May 29, 2019.
38. Ministry of Health and Family Welfare, National Health Profile 2017.
39. C. Kumar and R. Prakash, "Public-Private Dichotomy in Utilization of Health Care Services in India," *Consilience* 5 (2011): 25–52; A. Sengupta and S. Nundy, *The Private Health Sector in India* (2005), 1157–1158.
40. R. Duggal, *The Private Health Sector in India: Nature, Trends and a Critique* (Centre for Enquiry into Health and Allied Themes, 1996).
41. G. Gururaj et al, *National Mental Health Survey of India, 2015-16: Summary, Bengaluru* (National Institute of Mental Health and Neuro Sciences, 2016), NIMHANS Publication No. 129, 128.
42. N. Ravindran, "The Silent Epidemic," *India Today,* July 11, 2011, http://www.indiatoday.intoday.in/story/2-crore-indians-need-help-for-mental-disorders/1/143355.html; accessed May 29, 2019.
43. D. Bhaskaran, "Health Insurance Plans to Cover Mental Illness Too, But Will That Help?" *Livemint,* Aug. 20, 2018, https://www.livemint.com/Money/o0pRqJbfCkMiaiPHRV0TSK/Health-plans-to-cover-mental-illness-too-but-will-that-help.html; accessed June 2, 2019.
44. R.D. Pattanayak and R. Sagar, "Health Insurance for Mental Health in India: A Welcome Step Toward Parity and Universal Coverage," *Journal of Mental Health and Human Behaviour* 21, no. 1 (Jan. 1, 2016): 1.
45. J.P. Tripathy, "Geriatric Care in India: A Long Way to Go," *Journal of Mid-Life Health* 5, no. 4 (Oct. 2014): 205.
46. V. Govindarajan, *Seven Years Ago, India Promised Health Care Units for the Elderly. Where Are They?,* https://scroll.in/pulse/849561/seven-years-ago-india-promised-health-care-units-for-the-elderly-where-are-they; accessed May 25, 2018.
47. S.K. Kumar, "Kerala, India: A Regional Community-Based Palliative Care Model," *Journal of Pain Symptom Management* 33, no. 5 (May 2007): 623–27.
48. M. Bansal et al., "Setting Up a Palliative Care Clinic Within a Radiotherapy Department: A Model for Developing Countries," *Support Care Cancer,* 11, no. 6 (June 2003): 343–47; E. McDermott et al., "Hospice and Palliative Care Development in India: A Multimethod Review of Services and Experiences," *Journal of Pain Symptom Management* 35, no. 6 (June 2008): 583–93; Pallium India, *Palliative Care: National Policies/Laws,* https://palliumindia.org/resources/policies/#Palliative_CareNational_Policies_Laws, accessed May 25, 2018.
49. M. Mohanan, K. Hay, and N. Mor, "Quality of Health Care in India: Challenges, Priorities, and the Road Ahead," *Health Affairs* 35, no. 10 (Oct. 1, 2016): 1753–58.
50. N. Aayog, *The Health of Our Hospitals: Tracking the Performance of District Hospitals* (2017), https://niti.gov.in/content/tracking-performance-district-hospitals-health-our-hospitals; accessed May 19, 2019.
51. M. Singh, "Govt Begins Ranking District Hospitals to Improve Services," *The Times of India* (2017), https://timesofindia.indiatimes.com/india/govt-begins-ranking-district-hospitals-to-improve-services/articleshow/61095374.cms; accessed June 1, 2019.
52. National Accreditation Board for Hospitals and Healthcare Providers, "Hospital Accreditation" (2017), https://nabh.co/Hospitals.aspx; accessed June 3, 2019.
53. S. Das et al., "Accreditation in India: Pathways and Mechanisms," *Journal of European CME* 7, no. 1 (Jan. 1, 2018): 1454251.
54. National Health Systems Resource Centre, "Quality Assurance Framework and National Quality Assurance Programme," http://qi.nhsrcindia.org/; accessed June 3, 2019.
55. National Health Systems Resource Centre, "Quality Improvement," http://nhsrcindia.org/quality-improvement.
56. N. Bhan, K.D. Rao, and S. Kachwaha, "Health Inequalities Research in India: A Review of Trends and Themes in the Literature Since the 1990s," *International Journal for Equity in Health* 15, no. 1 (Dec. 2016): 166.
57. A.T. Bang et al., "Burden of Morbidities and the Unmet Need for Health Care in Rural Neonates—A Prospective Observational Study in Gadchiroli, India," *Indian Pediatrics* 38, no. 9 (Sept. 1, 2001): 952–66; T.S. Ravindran and U.S. Mishra, "Unmet Need for Reproductive Health in India," *Reproductive Health Matters* 9, no. 18 (Jan. 1, 2001): 105–13; R.K. Prusty, "Use of Contraceptives and Unmet Need for Family Planning Among Tribal Women in India and Selected Hilly States," *Journal of Health, Population, and Nutrition* 32, no. 2 (June 2004): 342; T.R. Dilip and R. Duggal, "Unmet Need for Public Health-Care Services in Mumbai, India," *Asia-Pacific Population Journal* 19, no. 2 (June 1, 2004): 27–40.
58. World Bank, *The State of Social Safety Nets* (2018), https://openknowledge.worldbank.org/bitstream/handle/10986/29115/9781464812545.pdf?sequence=5&isAllowed=y; accessed May 22, 2018.
59. Ministry of Health and Family Welfare, RAN (Health Ministers Cancer Patient Fund), https://mohfw.gov.in/major-programmes/poor-patients-financial-assistance/ran-health-ministers-cancer-patient-fund.
60. F. Godlee, *Put Patients First and Give the Money Back* (2015): h5489; M. Sharma et al., "Morbidity Profile and Drug Distribution Pattern at a Newly Established Tertiary Care Hospital," *Internet Journal of Health* 9, no. 2 (2008): 1–7.
61. M. Sharma and H. Aggarwal, "EHR Adoption in India: Potential and the Challenges," *Indian Journal of Science and Technology* 9, no. 34 (Sept. 2016): 1–7.
62. National Health Authority, "Ayushman Bharat Pradhan Mantri Jan Arogya Yojana," https://pmjay.gov.in/state; accessed Sept. 12, 2019.
63. K.M. Gopakamur, "Needed: Price Controls on Healthcare," *Business Line,* https://www.thehindubusinessline.com/specials/pulse/needed-price-controls-on-healthcare-services/article22316419.ece1; accessed June 12, 2019.
64. N. R. Verghese et al., "Government Pharmaceutical Pricing Strategies in the Asia-Pacific Region: An Overview," *Journal of Market Access and Health Policy* 7, no. 1 (Jan. 1, 2019): 1601060.
65. M. Rao, "Private Healthcare in India Part II: Govt Caps Price of Medicines, Stents, Consumables, But Industry Finds Way Around It," *Firstpost,* May 9, 2018, https://www.firstpost.com/india/private-healthcare-in-india-part-ii-govt-caps-price-of-medicine-stents-consumables-but-industry-finds-way-around-it-4460967.html; accessed June 12, 2019; "Price-Control as Regulary Philosophy Fundamentally Dents the Image of a Country," *ETHealthWorld,* June 2018, https://health.economictimes.indiatimes.com/news/medical-devices/price-control-as-a-regulatory-philosophy-fundamentally-dents-the-image-of-a-country/64633212.
66. Ministry of Chemicals and Fertilizers, Department of Pharmaceuticals, http://janaushadhi.gov.in/data/PMBJP.pdf; accessed May 18, 2018.

The Israeli Health Care System

Ruth Waitzberg and Bruce Rosen
Myers-JDC-Brookdale Institute

Israel provides universal coverage to citizens and permanent residents as part of its national health insurance law. Residents choose from four competing nonprofit health plans that provide a mandated benefit package, including hospital, primary, specialty, mental health, and maternity care, as well as prescription drugs and other services. There are no deductibles, but some cost-sharing is required for specialist visits and prescription drugs. The compulsory insurance system is funded primarily through a national income tax and an income-related health tax. Most citizens also purchase voluntary health insurance for medications not covered by the benefit package and for faster access and greater provider choice. Almost all governmental health functions are organized by the Ministry of Health, which has regional and district health offices.[1]

How does universal health coverage work?

Since 1995, Israel's National Health Insurance (NHI) law has ensured universal coverage for citizens and permanent residents. As the law states, "Health insurance...shall be based on principles of justice, equality and mutual assistance." Under this commitment, every resident is entitled to health care services.

Residents are free to choose one of four competing nonprofit health plans that must cover anyone who applies. Every resident has a right to receive all services included in the benefit basket that is mandated by the government, subject to medical discretion. While residents also have the right to receive services at a reasonable quality level, within a reasonable period of time, and at a reasonable distance from their home, no formal definition of "reasonable" exists, and there is no penalty for health plans that fail to comply.

Some populations are excluded: soldiers, who receive health care directly from the army; inmates, who receive care from the Israel Prison Service; documented and undocumented foreign workers, whom employers are required to enroll in private insurance programs; and undocumented migrants, temporary residents, and tourists.[2]

Role of government: The national government, through the Ministry of Health, is responsible for population health and the overall functioning of the health care system. It supervises and works with the NHI health plans and owns and operates a large network of maternal and child health centers, about half of the nation's acute care bed capacity, and about 80 percent of its psychiatric bed capacity.[3] In addition to financing insurance, the national government funds public-health services and is directly responsible for the provision and funding of certain other health services, including prenatal and preventive care, infant developmental tests, communicable disease surveillance, screenings, and institutional long-term care.

Local governments have limited involvement in health care provision. Accordingly, nearly all governmental health functions are organized by the national Ministry of Health, which comprises a network of regional and district health offices.

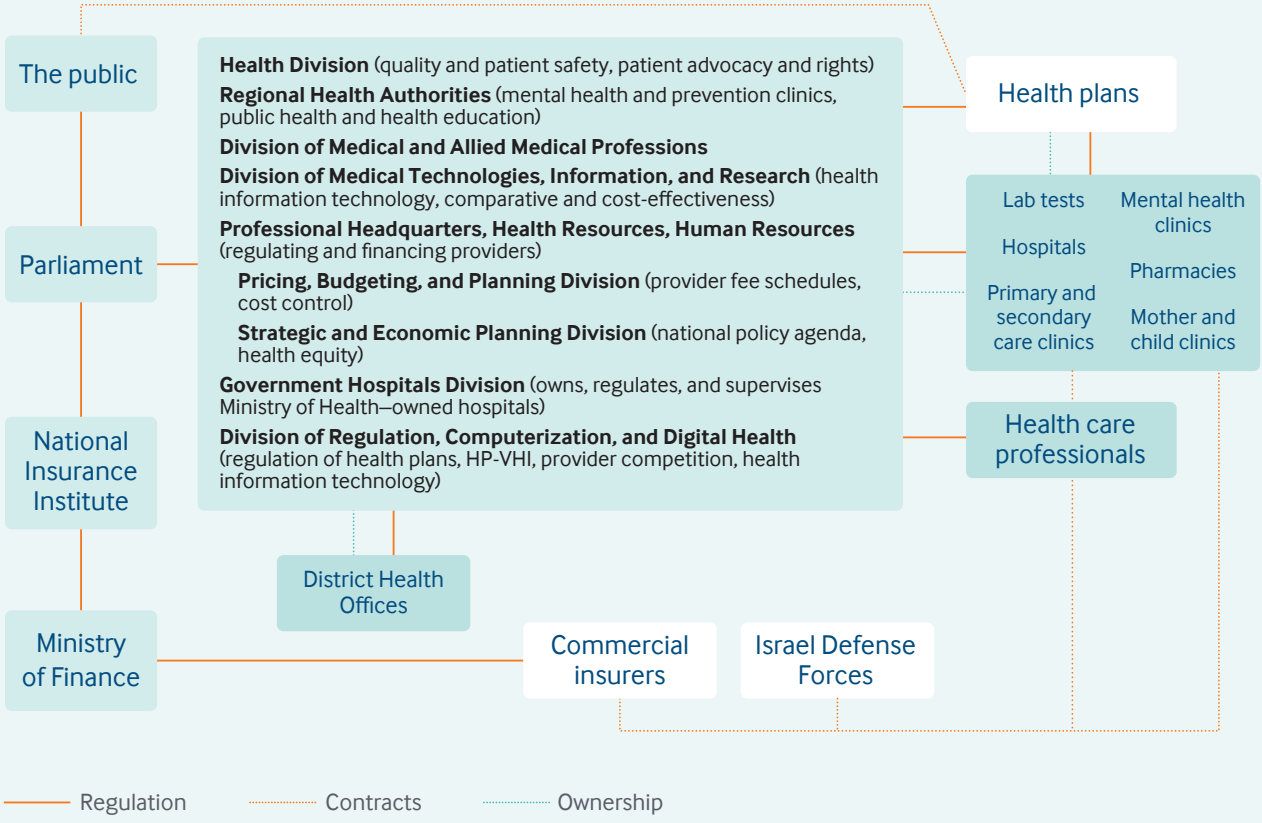
Various advisory bodies, including the following, counsel the Ministry of Health and handle specific responsibilities:

- The National Health Council, a public advisory council, advises on prominent health policy issues.
- The Benefits Package Committee provides guidance on the prioritization of new technologies for inclusion in the NHI benefit package and carries out health technology assessments for new medications.
- Various national councils provide external professional input in specific areas, such as trauma care, mental health, and women's health.
- The Ministry of Finance's Insurance and Capital Markets Division regulates commercial voluntary health insurance.
- An ombudsman's office helps citizens realize their rights under the NHI law. In addition, there are various nongovernmental patient advocacy organizations, many of which focus on particular diseases.

- The Scientific Council of the Israel Medical Association is responsible for specialty provider certification programs and examinations, in coordination with the Ministry of Health.
- The Council for Higher Education is responsible for the authorization, certification, and funding of all university degree programs, including the training of health care professionals.
- A joint Ministry of Health – Ministry of Finance committee sets the fees for hospitals, other providers, and services. These ministries are also engaged in cost-control efforts, but responsibility for cost containment is distributed over a number of different departments.

The Ministry of Health also has units that monitor quality and patient safety in hospitals and additional settings, provide national leadership in health information technology, promote health equity, and address issues of competition within health care.

ORGANIZATION OF THE HEALTH SYSTEM IN ISRAEL



Role of public health insurance: In 2017, national health expenditures accounted for 7.4 percent of GDP, a figure that has remained stable during the last two decades. In 2017, 63 percent of health expenditures were publicly financed, a share that is one of the lowest among Organisation for Economic Co-operation and Development (OECD) countries.

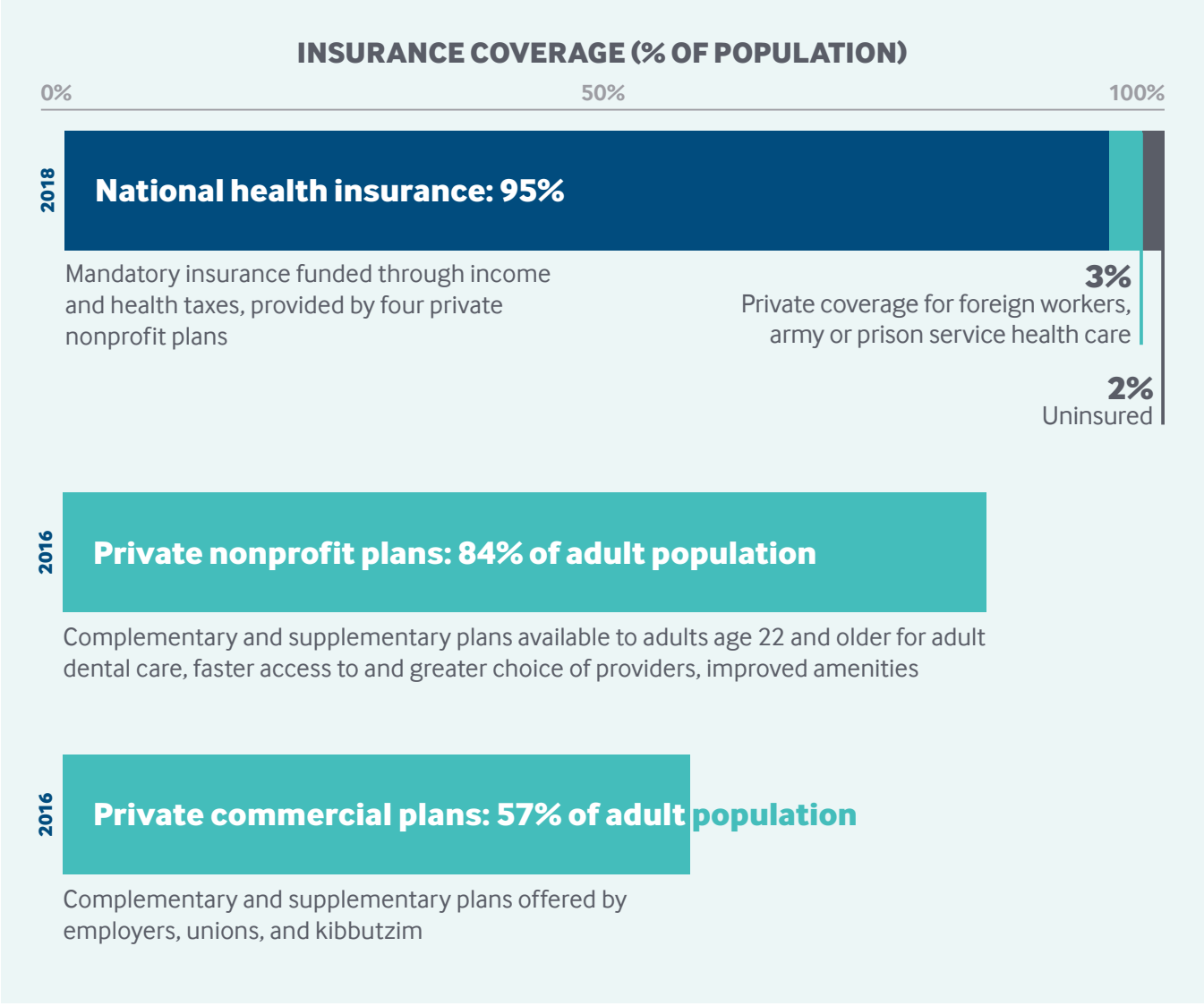
Israel's NHI system is funded primarily through an earmarked, income-related health tax (5% of income for individuals age 22 and older) in combination with general government revenues, which are funded primarily through progressive income taxation paid by individuals. Married women, children, and all those who are excluded from the NHI (such as soldiers) are exempt from the health tax.

The government distributes the NHI budget among the four health plans primarily through a capitation that accounts for sex, age, geographic distribution of their members and five chronic, expensive-to-treat diseases.

Role of private health insurance: Private, voluntary health insurance financed 14 percent of national health expenditures in 2016.[4] Residents can obtain voluntary health insurance from the four NHI nonprofit plans as well as from for-profit commercial plans. The NHI plans cannot reject applicants, and premiums are based on age only. Commercial private plans tend to be more comprehensive, more individually tailored, and more expensive, and can be purchased by individuals or groups, such as employers, unions, or kibbutzim.

Nearly all individuals purchase private insurance from either the NHI plans or commercial insurers, or both. In 2016, 84 percent of Israel's adult population was enrolled in an NIH private insurance plan, and 57 percent were enrolled in a commercial private insurance plan.[5]

Voluntary health insurance plays a complementary role, covering benefits excluded from the NHI scheme (dental care for adults, certain medications, alternative medicines), as well as a supplementary role, expanding access to NHI-covered benefits, offering access to private providers, and providing improved amenities and faster access to care. The high number of those with voluntary health insurance coverage reflects a general lack of confidence in the NHI system's capacity to fully fund and deliver all services needed in cases of severe illness.



Services covered: The mandated NHI benefit package includes the following:

- hospital care
- primary and specialty care
- prescription drugs
- certain preventive services
- mental health care
- dental care for children and the elderly aged 75+
- diagnostic exams
- maternity care
- allied medical care (physiotherapy, occupational therapy, nutrition, speech therapy)
- some durable medical equipment (wheelchairs, orthopedic aids)
- limited coverage of palliative and hospice services.[6]

Dental care for adults, optometry, and hearing aids are excluded.

Means-tested institutional long-term care, infant developmental screenings and vaccinations, and postpartum care like breastfeeding guidance are covered by the Ministry of Health, but separately from NHI.

Cost-sharing and out-of-pocket spending: In 2016, out-of-pocket spending accounted for 22 percent of national health expenditures.[7] Most of this was for voluntary health insurance (38%), adult dental care (22.5%), and pharmaceuticals (15%). The remainder was for other services not included in the NHI benefit package, including vision care and medical equipment, as well as cost-sharing for NHI-covered services.

NHI health plans are allowed to impose user charges for certain services. These include a flat quarterly copayment rate for visits to specialists and allied medical professionals and for imaging diagnostic exams; a user charge for after-hours emergency care in the community; and coinsurance for pharmaceuticals (see table below). User charges, which are regulated by the Ministry of Health, constituted about 6.5 percent of health plan income in 2016. There are no copayments for primary care visits, preventive care, cancer screenings, or hospital admissions. There are also no quarterly or annual deductibles with NHI coverage.

Safety nets: Safety nets include an annual cap on the health tax at NIS 43,370 (USD 11,565). In addition, individuals with low incomes (60% of average income or less) pay a reduced health tax rate of 3 percent, compared to 5 percent paid by individuals with higher incomes. The unemployed and others without income pay a minimum flat health tax of approximately NIS 100 (USD 27) per month.[8]

Israel also has caps on user charges and discounts for older adults, the chronically ill, and other vulnerable populations, as shown in the table below.

TYPICAL PATIENT COPAYMENTS AND SAFETY NETS

SERVICE	FEES PER ENCOUNTER/SERVICE	MAXIMUM OUT-OF-POCKET COSTS PER YEAR
Primary care visit	None	N/A
Specialist and allied medical professional consultations and imaging diagnostic exams	Copayments: Healthy adults and children: NIS 25–34 (USD 6.50–9.00) Copayments apply to all visits to providers within the same specialty	Groups exempt from copayments include: • Women age 64+ and men age 67+ receiving income support benefits from National Insurance Institute • Individuals with severe illnesses • Children in low-income families • Children receiving mobility allowance from the National Insurance Institute Groups with monthly copayment caps include: • Chronically ill individuals: NIS 311–377 (USD 82–100) per month • Chronically ill individuals older than retirement age who receive income support benefits: NIS 155–188 (USD 41–50) per month Quarterly ceiling for copays: • Families: NIS 205–257 (USD 54–69) • Families with at least one member age 65+ or at least one member who is new immigrant: NIS 103–128 (USD 27–34)
Hospitalization (per day or visit) including pharmaceuticals	None, except for complex nursing care	N/A
Prescription drugs (outpatient)	Coinsurance of at least NIS 17 (USD 4.50) per prescription and not to exceed: • 15% for patented drugs • 10% for generic drugs	Groups exempt from cost-sharing include Holocaust survivors and individuals with severe diseases (for drug therapies) Discounts on coinsurance: • Individuals age 65+ receiving income support benefits: 50% • Individuals age 72+: 55% • World War II veterans: 75% Monthly coinsurance caps: • People with chronic illness: NIS 318 (USD 85) • People age 65+ with chronic illness: NIS 159 (USD 42) • People with chronic illness and disability: NIS 79.5 (USD 21)

How is the delivery system organized and how are providers paid?

Physician education and workforce: Israel has six medical schools, which are all part of public, nonprofit universities. The number of medical schools and students is regulated by the higher education council. As of 2015, more than half (58%) of Israeli physicians under age 65 had completed their medical studies abroad. Annual tuition, heavily subsidized by the government, is approximately NIS 11,100 (USD 3,000) for the first three years and NIS 14,800 (USD 4,000) for the next three years.

To address physician shortages in the entire country and in remote areas in particular, the government introduced two measures in 2011: it increased the number of physician positions in all hospitals throughout the country and introduced financial incentives (onetime bonuses and salary differentials) to encourage physician graduates to pursue their residencies in remote regions. The combination of these two programs has increased the number of residencies completed, especially in remote settings. Similar financial incentives encourage physicians to choose in-demand specialties, such as anesthesiology, geriatrics, and pediatric neurology.

Primary care: In 2018, 5,052 of the 38,523 licensed physicians (13%) were employed as general practitioners (GPs). The average number of GPs per capita in Israel is 0.6 GPs per 1,000 people (or 1 GP per 1,653 insured). However, this rate varies across regions and health plans (ranging from 0. 57 to 0.73).[9]

Most GPs contract with one of the four competing nonprofit NHI health plans. Only 5 percent have contracts with more than one health plan.[10]

The four NHI health plans (Clalit, Maccabi, Meuhedet, and Leumit) have different approaches to organizing care. Clalit, the largest health plan, provides most primary care in clinics that it owns and operates, and GPs are salaried employees. The typical clinic is multidisciplinary, with three-to-six GPs and several nurses, pharmacists, and other professionals. Clalit also contracts with independent physicians who tend to work in solo practices, with some access to administrative and nonphysician services at Clalit district clinics.

The other three health plans also use a mix of multidisciplinary clinics and independent primary care practices. In Maccabi (the second-largest plan) and Meuhedet, almost all of the primary care is provided by independent physicians, while in Leumit the clinic model predominates.

Members of all plans can generally choose their GP from among those on the plan's list and can switch freely. In practice, nearly all patients remain with the same GP for extended periods.

In Clalit, each patient is registered with a GP who has responsibility for coordinating care. Clalit is also the only plan that requires gatekeeping; referrals are required for secondary care, except for five common specialties (dermatology, otorhinolaryngology, ophthalmology, orthopedics, and gynecology). In Leumit, patients are registered with a clinic rather than with a GP, and in the other two plans there is no registration.

Approximately one-third of Israel's nurses work in community settings, primarily as salaried employees of the four NHI health plans. Their roles have been expanding beyond traditional routine nursing care (see "What innovations and reforms have recently been introduced?"). In a 2015-2016 national survey, 38 percent of frontline nurses employed by health plans identified "caring for chronically ill patients" as their main area of activity in addition to routine care, and 30 percent noted "health promotion."[11]

Doctors are paid entirely by the health plans; they cannot collect additional fees from their patients.

Salaries of Clalit clinic-based physicians are set via a collective bargaining agreement with the Israel Medical Association. Capitation rates for independent physicians in all health plans are set by the plans in consultation with physicians' associations.

Clalit and Leumit use predominantly "passive capitation," a quarterly, per-member payment made irrespective of whether the member visited the GP in the relevant quarter. Maccabi and Meuhedet use "active capitation," whereby payment is made only for members who visited their GP at least once during the quarter. Independent physicians also receive limited fee-for-service payments for certain procedures. Quality-related financial incentives are generally not used.

Outpatient specialty care: Outpatient specialty care is provided predominantly in community settings, either in health plan clinics or in physicians' offices. The former tend to be integrated multispecialty clinics, while the latter tend to be single-specialty.

Patients can choose freely among community-based specialists who are contracted with their health plan. Services provided by out-of-network specialists are paid for out-of-pocket or covered by voluntary health insurance.

Most outpatient specialists are paid on an active capitation basis, plus fee-for-service for certain procedures, up to a quarterly ceiling. Rates are set by the health plans. Specialists may not "balance bill" for NHI-covered services. Nevertheless, specialists can receive patients from NHI health plans along with patients who have private voluntary health insurance, but not the same patient in both settings. For privately insured patients, specialists can set their payment rates at their discretion.

Administrative mechanisms for direct patient payments to providers: When copayments and coinsurance are owed, such as for specialist visits and pharmaceuticals, patients never pay providers directly. Instead they use their health plan membership cards to make copayments. The provider then receives the full fee from the health plans, which collect copayments electronically from enrollees' bank accounts each month.

After-hours care: After-hours care is available via hospital emergency departments (EDs), freestanding walk-in urgent care centers (both nonprofit and for-profit), and physician home visits provided by for-profit companies. The Ministry of Health has overall responsibility for after-hours care, and it has promoted the establishment of urgent care in several localities that are far from hospital EDs.

Primary care physicians are not required to provide after-hours care. They receive reports on their patients from the after-hours providers and, increasingly, this information is conveyed electronically.

All health plans operate national telephone advice lines for their members, staffed by nurses with physician backup. All of Israel's hospital EDs are connected to the national health information exchange; efforts are underway to link them with community-based urgent care centers as well.

Hospitals: Of the 45 acute care hospitals, 18 are government-owned, either by the Ministry of Health or by municipalities. These account for 57 percent of the national capacity. Another 40 percent of acute care beds are operated by 16 private nonprofit hospitals that are owned by health plans or nonprofit organizations. Eleven for-profit hospitals account for the remaining 3 percent of bed capacity. These tend to be smaller hospitals that specialize in elective procedures.[12]

Reimbursement of hospital care varies:

- Hospital emergency care is reimbursed on a fee-for-service basis.
- Inpatient medical care is reimbursed on a per-diem basis.
- Inpatient procedures are paid either per diem or through activity-based, procedure-related group (PRG) arrangements.[13]
- Outpatient care is reimbursed on either a fee-for-service or a procedure-related group basis.

Maximum payment rates are set by the government, but health plans negotiate discounts. The government also sets revenue parameters (minimum and maximum), which limit the extent to which each hospital's total revenues can decrease or grow from year to year. Hospital payments cover all costs, including the cost of the physicians. Procedure-related group payments include all costs of a hospitalization episode, excluding rehabilitation. There are no extra payments for severity, outliers, expensive treatments, or the adoption of new technologies.

Government and nonprofit hospitals follow a national hospital fee schedule, but for-profit hospitals' prices are unregulated. Fee-for-service is the predominant payment mode for private for-profit hospitals.

In government and nonprofit hospitals, physicians are predominantly salaried employees, with limited arrangements for supplemental fee-for-service payments for procedures performed outside regular hospital hours.

Until 2018, there was largely no choice of specialist in nonprofit hospitals. Patients wishing to choose a specialist or surgeon had to go to a for-profit hospital and pay out of pocket or use voluntary health insurance. Since 2018, some large public hospitals have started offering free choice of surgeon.

Mental health care: In 2015, responsibility for the provision of mental health care was transferred from the Ministry of Health to the NHI health plans, which provide care through a mix of salaried professionals, contracted independent professionals, and purchased services. The Ministry of Health continues to own and operate community-based mental health clinics, which are now under contract with the health plans.

NHI-mandated mental health coverage is broad and includes psychotherapy, medications, and inpatient and outpatient care. Integration of mental health and medical services is currently limited but is expected to improve because of the transfer of responsibility to the health plans. Psychologists are the main source of professional mental health care for half of patients, and psychiatrists and primary care physicians serve a quarter of patients.[14]

Since the health plans took over mental health care, the availability of community-based services has increased substantially. However, there are still significant waiting times, particularly for psychotherapy and child psychiatry. These delays are due in part to shortages of some types of mental health professionals and to the health plans' difficulties in attracting and contracting with professionals, who can earn much more in the private sector.

Long-term care and social supports: Long-term care is not covered by NHI, but is covered separately. The government publicly funds long-term care services through general taxes.

In 2014, 86 percent of adults age 65 and older with disabilities received community-based long-term care, while the remaining 14 percent received institutional long-term care.[15] Community-based services account for 52 percent of total long-term care expenditures, of which 67 percent was publicly funded.[16]

Approximately half of the adult population purchases private long-term care insurance.[17]

Institutional long-term care financing is subsidized by the Ministry of Health and is awarded based on needs and means tests. These subsidies are generally paid directly to providers, although families can receive cash subsidies to pay providers.

Community-based long-term care is funded by the National Insurance Institute, and eligibility is based on needs and means tests. It includes personal care and housekeeping services for community-dwelling seniors with disabilities.[18] In addition, the National Insurance Institute covers an extensive network of daycare centers and a growing network of supportive neighborhoods. An emergency call service, physician home visits, and social activities are also covered. Additionally, in every community, a facilitator coordinates social supports and apartment repairs.

Until 2018, there was no financial support for informal or family caregivers; there are means-tested government subsidies for home aids.

NHI health plans are responsible for providing medical care, such as home nursing care, for the disabled elderly living in the community. In recent years, they have increased access to clinicians (particularly for the homebound elderly) via home care teams and telemedicine.

About two-thirds of nursing home care and nearly all home aids are provided by private, for-profit companies, with the remainder being public.

Hospice care is a mandated NHI benefit. In practice, however, while some hospice care is available, particularly home hospice, there is considerable unmet need.

What are the major strategies to ensure quality of care?

Israel has a well-established system for monitoring the quality of primary care. Comparative quality data for individual health plans has been made public since 2014.[19] While the published data relate to the health plans at the national level, the plans also maintain internal data on regions, clinics, and individual physicians.[20] Plans monitor the care provided by their GPs and work closely with them to improve quality.[21]

The Ministry of Health publishes comparative, hospital-specific quality data. The number of quality indicators and of the types of services covered has been growing rapidly. Currently, explicit financial incentives for hospitals to improve quality exist only for timely care of hip fractures or stroke.

The Ministry of Health also has a well-developed system for monitoring the quality of care in nursing homes and mother-and-child clinics, and is sharing this performance information with the public. There is no parallel system for home care services.

Practice guidelines exist for some clinical areas. These have been developed by professional medical associations, often in collaboration with the Ministry of Health.

All Israeli general hospitals are required to have received, or to be working toward, accreditation by Joint Commission International. As of June 2018, almost all of the general hospitals were accredited.

An independent research institute carries out biannual surveys of the general population regarding the service level provided by NHI health plans and the level of satisfaction with the health system. The Ministry of Health recently launched an annual survey of hospitalized patients, publishing results for individual hospitals.

National registries are maintained by the Ministry of Health for certain expensive medical devices and for a broad range of diseases and conditions, including cancer, low birth weight, trauma, and occupational diseases.

What is being done to reduce disparities?

The Ministry of Health is leading a major national effort to reduce disparities, in cooperation with the NHI health plans and hospitals.[22] Key initiatives include:

- Reducing financial barriers to care, particularly for those with low incomes and other vulnerable populations. Most prominently, mental health and dental care for children and the elderly have been added to the NHI benefit package.[23]
- Enhancing the availability of services and professionals in remote regions by increasing the supply of beds and technologically advanced equipment in those regions.
- Addressing the unique needs of minorities through the adoption of cultural responsiveness requirements for all providers, the establishment of a national translation call center, and targeted interventions for the Bedouin and other high-risk groups.
- Implementing intersectoral efforts to address the social determinants of health and promote healthy lifestyles.

What is being done to promote delivery system integration and care coordination?

The four NHI health plans are essentially the main source of primary, specialty, and mental health care. This structural integration provides a foundation for providing relatively seamless care, including care for complex and chronically ill patients. The plans' health information systems link primary and specialty care providers, and a new national health information exchange is adding hospital data to this system. These systems are increasingly providing access to electronic patient information at the point of care.

In addition, the health plans have established several targeted care management programs that aim to provide comprehensive integrated care for complex patients with chronic conditions. These make extensive use of the plans' sophisticated information systems, videoconferencing, and other innovative techniques.[24]

What is the status of electronic health records?

All health plans have electronic health record (EHR) systems that link all community-based providers: primary care physicians, specialists, laboratories, and pharmacies. All GPs work with EHRs. Hospitals are also computerized but are not fully integrated with health plan EHRs. The Ministry of Health is leading a major national health information exchange project to create a system for sharing relevant information across all hospitals and health plans.

Each citizen has a unique patient ID. Patients have the right to get copies of their medical records from hospitals and health plans, and patients can book appointments and access many components of their EHR online (such as lab test results), but full records are not generally available. Efforts are underway to set up secure messaging systems linking patients and their GPs.

How are costs contained?

Among high-income countries, Israel is one of the most successful at containing costs. Strategies include:

- Instituting tight control of resources and expenditures. About half of national health expenditures are channeled through the Ministry of Finance.[25] There are rigorous controls on key supply factors, such as hospital beds and expensive medical equipment, as well as physician and nurse positions in hospitals. In addition, the government sets maximum reimbursement rates and global revenue caps for hospitals.

- Using various managed care approaches. The NHI health plans essentially work as managed care organizations, providing care within budgets that are largely determined prospectively by capitation. The plans employ a variety of mechanisms for controlling utilization and costs, such as purchasing pharmaceuticals in bulk and incentivizing the use of generics. Health plans also maintain a well-developed system of prevention and community-based services to reduce reliance on high-cost hospital care.
- Explicitly prioritizing public funding for new technologies included in the NHI benefit package.
- Deploying risk-sharing agreements for certain high-cost drugs. The pharmaceutical companies fund patients' drugs after a predetermined supply has been depleted.
- Implementing demand-side levers, including cost-sharing for specialist visits and coinsurance for pharmaceuticals, with higher rates for patented medications.
- Aligning organizational and financial incentives between clinicians and the hospitals or health plans for which they work. For example, health plans have various internal processes for discouraging the delivery of care that provides poor value.

What major innovations and reforms have recently been introduced?

A number of innovations have been launched in recent years, including the following:

- Creating an environment to encourage healthy diets. The Ministry of Health has imposed measures such as mandatory food labelling and restrictions on advertising unhealthy food for children. It has been incentivizing food manufacturers to produce healthier products, and has been improving economic access to healthy food through the taxation of unhealthy food. In addition, the Ministry of Health is improving the nutritional value of food served in public institutions, and is including education on healthy diets in the school curriculum for young children.[26]
- Expanding the role of nurses in the community. In 2018, the Ministry of Health extended the responsibilities and scope of practice for specialist nurses in the community, to relieve some of the pressure on primary care physicians. Specialist nurses can now treat mild cases of acute diseases and cases that are urgent but simple to treat; treat and monitor patients with chronic diseases; provide preventive care and handle health promotion; and prescribe medications and contraceptives. Specialist nurses can also provide palliative care and refer patients for diagnostic tests, to specialists, and to EDs.[27]
- Improving continuity of care. Urgent care centers are required to report patient data (diagnosis, treatment, recommendations for future care) to the patient's health plan and to the hospital if the patient is referred for acute care, bridging the information gap between community and inpatient care. Centers must also report cases of communicable or rare diseases and domestic violence to relevant authorities.[28]
- Further expanding dental care coverage. The 2018–2019 Ministry of Health budget funds the expansion of the health basket to include dental care for people aged 75+ during 2018, and for children up to 18 years old during 2019. This step concludes the "reform of dental care for children," which started in 2010 with the inclusion of dental care for children up to 8 years of age to the health basket.[29]
- Increasing the scope, breadth, and depth of services for older people. To better meet the needs of Israel's aging society, the Ministry of Health is broadening eligibility for long-term care.[30]

REFERENCES

1. This profile draws on B. Rosen, R. Waitzberg, and S. Merkur, "Israel: Health System Review," *Health Systems in Transition* 17, no. 6 (European Observatory on Health Systems and Policies, 2015): 1–112; and "Israel," *The Health Systems and Policy Monitor* (European Observatory on Health Systems and Policies), http://www.hspm.org/countries/israel25062012/countrypage.aspx.
2. Rosen et al., "Israel: Health System Review.
3. Rosen et al., "Israel: Health System Review."
4. Central Bureau of Statistics, *Statistical Abstract of Israel, 2017* (2018), http://www.cbs.gov.il/reader/?MIval=cw_usr_view_Folder&ID=141; last accessed May 27, 2018.
5. S. Brammli-Greenberg, R. Waitzberg, and R. Gross, "Integrating Private Insurance into the Israeli Health System: An Attempt to Reconcile Conflicting Values," in S. Thomson, A. Sagan, and E. Mossialos (eds.), *International Experience with Private Health Insurance: History, Politics, Performance* (Cambridge University Press, 2019).
6. N. Bentur, L. L. Emanuel, and N. Cherney, "Progress in Palliative Care in Israel: Comparative Mapping and Next Steps," *Israel Journal of Health Policy Research* 1, no. 1 (Feb. 20, 2012): 9.
7. Central Bureau of Statistics *Statistical Abstract of Israel, 2017.*
8. Conversion rate: 1 USD = NIS 3.7.
9. Ministry of Health, "Practitioners and Specialists in Family Medicine — 2018," *Administration for Strategic and Economic Planning* (2018), https://www.health.gov.il/UnitsOffice/HRS/economy/Pages/Publications.aspx , retrieved 01/23/18 (Hebrew publication).
10. Ministry of Health, "Practitioners and Specialists in Family Medicine — 2018."
11. R. Nissanholtz-Gannot, B. Rosen, and M. Hirschfeld, "The Changing Roles of Community Nurses: The Case of Health Plan Nurses in Israel," *Israel Journal of Health Policy Research* 6, no. 1 (Dec. 23, 2017): 69.
12. R. Waitzberg and S. Merkur, "Policy Efforts to Strengthen Public Hospitals in Israel," *EuroHealth* 23, no. 4 (2017): 34–38.
13. S. Brammli-Greenberg et al., "Why and How Did Israel Adopt Activity-Based Hospital Payment? The Procedure-Related Group Incremental Reform," *Health Policy* 120, no. 10 (Oct. 2016): 1171–76.
14. Elroy et al., *Needs and Use of Mental Health Services, 2016* (Myers-JDC-Brookdale Institute, 2017), https://brookdale.jdc.org.il/patterns-of-use-of-mental-health-services/.
15. T. Muir, "Measuring social protection for long-term care," *OECD Health Working Papers, No. 93* (OECD Publishing, 2017), http://dx.doi.org/10.1787/a411500a-en.
16. D. Chernichovsky et al., *Long-Term Care in Israel: Funding and Organization Issues* (2017), http://taubcenter.org.il/wp-content/files_mf/longtermcare.pdf.
17. Brammli-Greenberg et al., "Integrating Private Insurance into the Israeli Health System."
18. S. Asiskovitch, "The Long-Term Care Insurance Program in Israel: Solidarity with the Elderly in a Changing Society," *Israel Journal of Health Policy Research* 2, no. 1 (Jan. 23, 2013): 3.
19. D. H. Jaffe et al., "Community Healthcare in Israel: Quality Indicators 2007–2009," *Israel Journal of Health Policy Research* 1, no. 1 (Jan. 30, 2012): 3.
20. B. Rosen et al., "What the United States Could Learn from Israel About Improving the Quality of Health Care," *Health Affairs* 30, no. 4 (April 2011): 764–72; R. D. Balicer et al., "Sustained Reduction in Health Disparities Achieved Through Targeted Quality Improvement: One?Year Follow?Up on a Three?Year Intervention," *Health Services Research* 50, no. 6 (Dec. 2015): 1891–909.
21. B. Rosen et al., "What the United States Could Learn from Israel About Improving the Quality of Health Care."
22. T. Horev and H. Avni, "Strengthening the Capacities of a National Health Authority in the Effort to Mitigate Health Inequity — The Israeli Model," *Israel Journal of Health Policy Research* 5 (Aug. 15, 2016): 19.
23. B. Rosen, "Inclusion of Dental Care for Children in NHI," Health Systems and Policies Platform.ha (2016).
24. Intel Health and Life Sciences, *Improving Health Outcomes and Reducing Costs with Video Conferencing Technology* (case study), 2015.
25. J. Zwanziger and S. Brammli-Greenberg, "Strong Government Influence over the Israeli Health Care System Has Led to Low Rates of Spending Growth," *Health Affairs* 30, no. 9 (Sept. 2011): 1779–85, https://www.healthaffairs.org/doi/abs/10.1377/hlthaff.2010.0936).
26. Ministry of Health, "Healthy Diet Committee," https://www.health.gov.il/Services/Committee/HealthyDietCommittee/Pages/default.aspx; accessed Sept. 26, 2017.
27. Ministry of Health, *Specialist Nurses in the Community,* circular, 136/17 (in Hebrew) https://www.health.gov.il/hozer/ND136_2017.pdf; accessed Feb. 1, 2018.
28. R. Waitzberg, " Community-Based Emergency Medical Facilities Work Towards Improving Continuity of Care," reform log, Nov. 9, 2017, https://www.hspm.org/countries/israel25062012/countrypage.aspx.
29. Ministry of Health, "Many Reforms to the Health System in the State Budget Approved Tonight," (in Hebrew), https://www.health.gov.il/NewsAndEvents/SpokemanMesseges/Pages/15032018_1.aspx; accessed April 9, 2018.
30. Ministry of Finance, *Ministry of Health's Main Budget for 2019* (in Hebrew) (2018), http://mof.gov.il/BudgetSite/statebudget/BUDGET2019/MINISTERIESBUDGET/socialBudget/DocLib/Briut_Main.pdf.

The Italian Health Care System

Andrea Donatini
Emilia-Romagna Regional Health Authority

Italy's National Health Service automatically covers all citizens and legal foreign residents. It is funded by corporate and value-added tax revenues collected by the central government and distributed to the regional governments, which are responsible for delivering care. Residents receive mostly free primary care, inpatient care, and health screenings. Other statutory benefits include maternity care, specialty care, home care, hospice care, preventive medicine, and pharmaceuticals. Patients make copayments for specialty visits and procedures and some outpatient drugs. Exempt from cost-sharing are pregnant women, patients with HIV or other chronic diseases, and young children and older adults in lower-income households. There are no deductibles for residents. Private health insurance has a limited role in Italy's health coverage system.

How does universal health coverage work?

Universal coverage is provided through Italy's National Health Service (*Servizio sanitario nazionale,* or SSN), established through legislation in 1978. The SSN automatically covers all citizens and legal foreign residents. Since 1998, undocumented immigrants have had access to urgent and essential services. Temporary visitors are responsible for the costs of any health services they receive.

Role of government: The organization and delivery of health services is decentralized. Nineteen regions and two autonomous provinces are responsible for delivering care through 100 local health units, which deliver primary care, hospital care, outpatient specialist care, public health care, and health services related to social care. Regions enjoy significant autonomy in determining the macro structure of their health systems. The local health units each have a general manager, who is appointed by the regional governor.

As specified in Italy's constitution, national health policies and priorities are a responsibility of the central government. The central government also determines annual SSN funding and controls the allocation of resources to each region. Health agencies and ministries include the following:

- The Ministry of Health, which oversees health care planning (such as determining the essential benefits package), health system ethics, the supply of health professionals, information systems, and other areas
- The National Committee for Medical Devices, which develops cost-benefit analyses and determines reference prices for medical devices
- The Agency for Regional Health Services, the sole institution responsible for conducting comparative-effectiveness analyses, which is accountable to the regions and to the Ministry of Health
- The National Pharmaceutical Agency, which governs prescription drug pricing, reimbursement policies, and all other matters related to the pharmaceutical industry.[1]

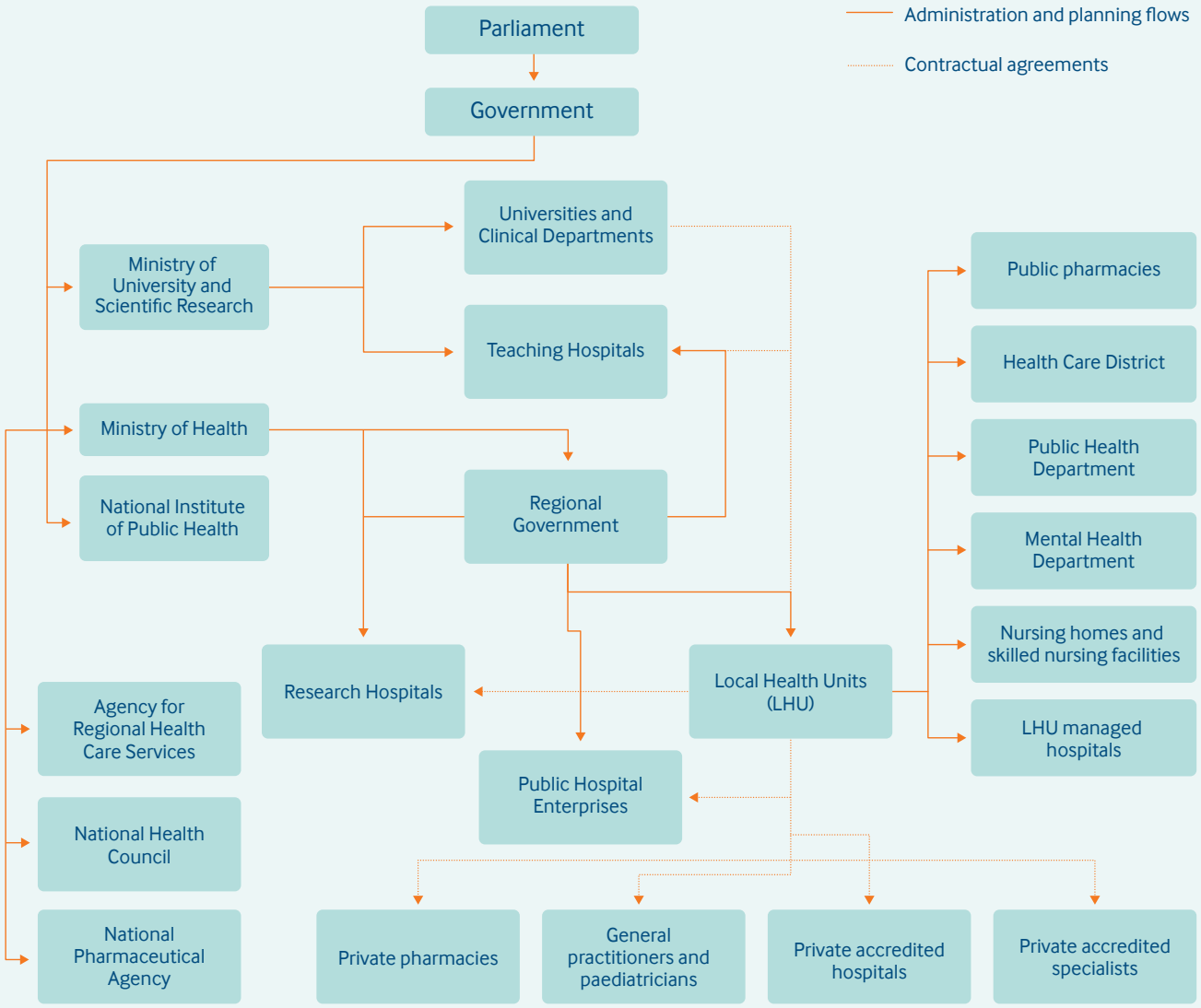
Role of public health insurance: Public financing accounted for 74.2 percent of total health spending in 2018, with total expenditures standing at 8.8 percent of GDP.[2] The public system is financed primarily through two mechanisms[3]:

- A corporate tax (approximately 18.6% of 2018 total funding), which is pooled nationally and allocated back to the regions. Corporate tax allocations are typically in proportion to a region's contributions. There are large interregional variations in the corporate tax base, resulting in inequalities in financing.
- A fixed proportion of the national value-added tax revenue (approximately 60% of 2018 total funding) collected by the central government, which is redistributed to regions with insufficient resources to provide essential services.

The regions are allowed to generate their own additional revenue, leading to further interregional financing differences.

Local health units are funded mainly through capitated budgets.

ORGANIZATION OF THE HEALTH SYSTEM IN ITALY

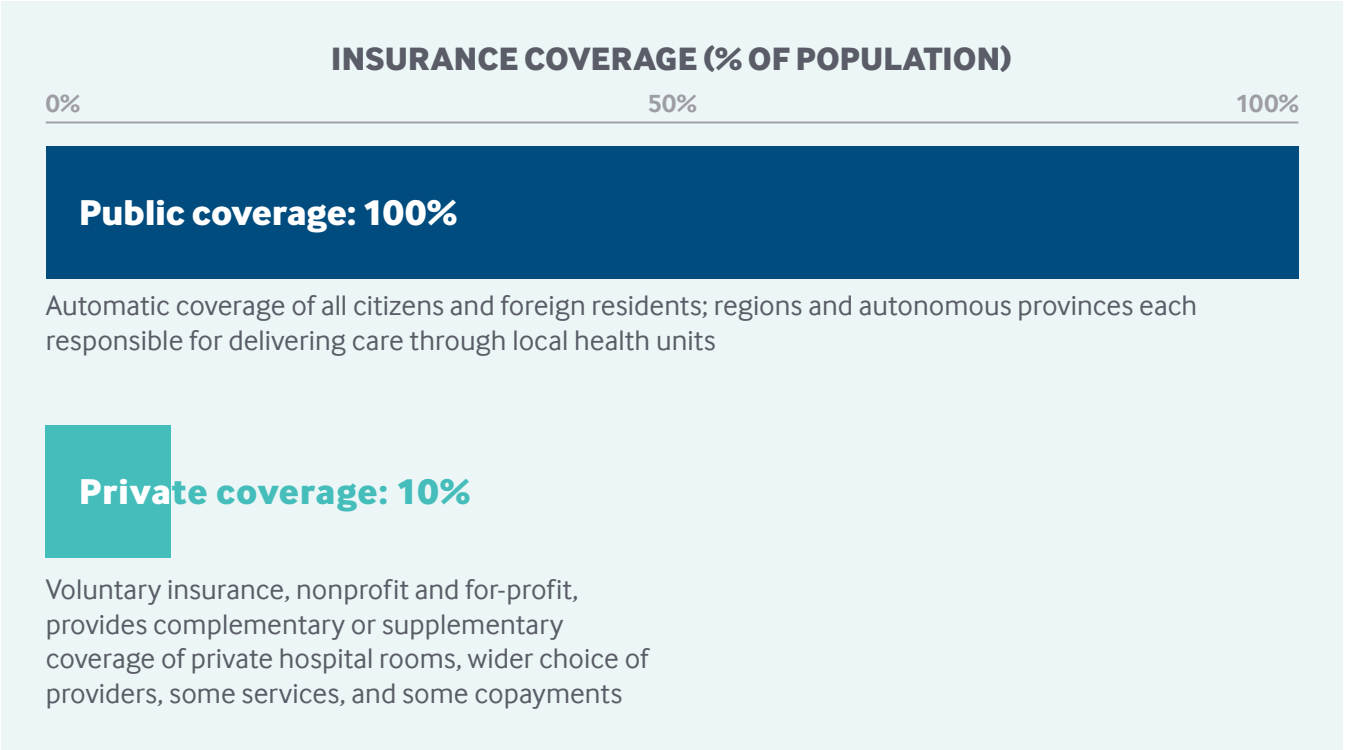


Source: A. Donatini, Emilia-Romagna Regional Health Authority, 2014.

Role of private health insurance: Since the SSN does not allow people to opt out of the system and seek only private care, substitutive insurance does not exist. But complementary and supplementary private health insurance play a limited role in the health system, accounting for roughly 1 percent of total spending in 2014.

Approximately 10 percent of the population have some form of voluntary health insurance, which covers services excluded under SSN essential benefits, offers a higher standard of comfort and privacy in hospital facilities, and affords wider choice among public and private providers. Some private health insurance policies also cover copayments for privately provided services or a daily rate of compensation during hospitalization.[4] Tax benefits favor complementary insurance (insurance for copayments) over supplementary voluntary insurance (which covers the cost of health care services not included in the essential benefits package).

There are two types of private health insurance: corporate, for which companies cover employees and sometimes their families, and noncorporate, with individuals buying insurance for themselves or their families. Policies, either collective or individual, are supplied by for-profit and nonprofit organizations. The market comprises voluntary mutual insurance organizations and corporate and collective funds organized by employers or professional associations for their employees or members. Nonprofit organizations cover the majority of the insured.[5]



Services covered: The central government defines a national statutory benefits package offered to all residents in every region: the LEA (*Livelli essenziali di assistenza*). Covered benefits include:

- pharmaceuticals
- inpatient care
- preventive medicine
- outpatient specialist care
- maternity care
- home care
- primary care
- hospice care.

Durable medical equipment, long-term care, and other selected services are covered only for patients with certain medical conditions.

Regions can offer services not included in the national statutory benefits but must finance those services themselves.

Prescription drugs are divided into three tiers according to clinical effectiveness and, in part, cost-effectiveness:

- Tier 1 (*Classe A*) includes lifesaving drugs and treatments for chronic conditions and is covered in all cases.
- Tier 2 (*Classe C*) includes drugs for all other conditions and is not covered by the SSN.
- Tier 3 (*Classe H*) comprises drugs that can be delivered only in a hospital setting.

The three tiers are updated regularly by the National Pharmaceutical Agency in recognition of new clinical evidence. For some categories of drugs, therapeutic plans are mandated and prescriptions must follow clinical guidelines.

Dental care is generally not covered, except for children through age 16, vulnerable populations, and people in economic and emergency need.

Cost-sharing and out-of-pocket spending: Primary and inpatient care are free at the point of use. Most preventive screenings are also provided free of charge.

Procedures and specialist visits can be prescribed either by a general practitioner (GP) or by a specialist. Fees for visits range from EUR 12.91 (USD 17.91) for a follow-up visit) to EUR 20.66 (USD 28.65) for first encounters. Patients also make copayments for each prescribed procedure up to a ceiling determined by law — currently EUR 36.15 (USD 50.14).[6]

Patients are subject to copayments for some outpatient drugs (see table below). In addition, a EUR 25 (USD 35) copayment has been introduced for the "unnecessary" use of emergency services, but some regions have not enforced this copayment.

No other forms of deductible exist. Public and private providers under a contract with the SSN are not allowed to charge above scheduled fees.

In 2018, an estimated 23 percent of total health spending was paid out-of-pocket, mainly for drugs not covered by the public system and for dental care.[7]

Safety nets: All individuals with out-of-pocket payments over EUR 129 (USD 181) in a given year are eligible for a tax credit equal to roughly one-fifth of their spending.

Exemptions from cost-sharing are applied to children under age 6 and adults over age 65 who live in households with a gross income below a nationally defined threshold of approximately EUR 36,000 (USD 40,930). People with severe disabilities, as well as prisoners, are exempt from cost-sharing. In addition, people with rare or chronic diseases, including HIV, and pregnant women are exempt from cost-sharing for treatments related to their condition.

TYPICAL PATIENT COPAYMENTS AND SAFETY NETS

SERVICE	FEES PER ENCOUNTER/SERVICE	MAXIMUM OUT-OF-POCKET COSTS PER YEAR (SAFETY NET)
Primary care visit	None	N/A
Specialist consultation	First appointment: 20.66 EUR (USD 28.65)* Follow-up appointment: 12.91 EUR (USD 17.91)*	No maximum per-year caps but individuals with out-of-pocket payments over EUR 129 (USD 179) in a given year are eligible for a tax credit equal to roughly one-fifth of their spending
Hospitalization (per day or visit) including pharmaceuticals	Public hospitals: None Private hospitals: Mostly free; fees vary for patients paying out of pocket	
Prescription drugs (outpatient)	Tier 1 (*Class A*) drugs prescribed by a physician: Nothing for generic drugs and the difference between the reference price and the market price for brand-name drugs Tier 2 (*Class C*) drugs: Patients pay full price Some regions have introduced additional copayments for Tier 1 drugs, ranging from EUR 1–3 (USD 1.39–4.16) per box	

* These are national rates; regions can set their own appointment or procedure rates up to a ceiling determined by law, which is currently EUR 36.15 (USD 51).

How is the delivery system organized and how are providers paid?

Physician education and workforce: Enrollment in university medical education programs (medicine, surgery, and dentistry) is based on a competitive assessment exam. There are also restrictions on advancement to postgraduate levels, where medical school graduates can specialize in fields such as cardiology, neurology, and general surgery. Medical schools are largely public, with yearly fees of approximately EUR 2,200 (USD 2,500). Postgraduate students pay the same fee but also receive a monthly stipend of EUR 1,800 (USD 2,000).

Primary care: Primary care is provided by contracted self-employed and independent GPs and pediatricians. They are paid a capitation fee based on the number of patients on their list.[8] Local health units also can pay additional allowances for

delivering care to specific patients, such as home care to chronically ill patients; for reaching targets related to quality or spending levels; or for delivering additional patient services.

Capitation is adjusted for patient age, and accounts for approximately 70 percent of a GP's overall payment. On average, the gross income of a GP ranges between EUR 80,000 (USD 110,957) and EUR 120,000 (USD 166,436), depending on list size. All the costs — for medical tools, office rental, and personnel — are borne by the GP.

GPs and pediatricians willing to work in rural or remote areas receive an additional payment of approximately EUR 5 (USD 6) per patient.

In 2017, there were approximately 52,000 GPs and pediatricians (34% of all practitioners) working for the SSN. In comparison, there were 101,000 hospital clinicians, including specialists (66%).[9]

Patients are required to register with a gatekeeping GP. They may choose any physician whose list has not reached the maximum number of patients allowed (1,500 for GPs and 800 for pediatricians) and may switch at any time.

The payment levels, duties, and responsibilities of GPs are determined in a collective agreement signed periodically after consultations between the central government and the GPs' trade unions. In addition, regions and local health units can sign contracts covering additional services.

GPs are not allowed to bill patients for any procedure delivered, although they are allowed to deliver treatments in a private setting provided they do not dedicate more than five hours per week to private care. If GPs decide to deliver private care for more than five hours per week, they must accept a reduction in their maximum number of patients (48 patients per additional hour).

In recent years, group practices have become more widespread, particularly in the northern part of the country. GPs and pediatricians who participate in some type of group practice — and ideally share offices and patient health record systems — receive additional payments per patient. They also receive additional payments for employing a nurse or secretary. In 2017, nearly 71 percent of GPs and 65 percent of pediatricians were working in a team.[9] Group practices typically include from three to eight GPs.

To further coordinate meeting all the health needs of their populations, some regions are asking GPs to work in multidisciplinary groups composed of specialists, nurses, and social workers. This arrangement is encouraged by additional payments to GPs per patient and by supplying teams with needed personnel.

Outpatient specialist care: Outpatient specialist care is generally provided by local health units or by public and private accredited hospitals under contract with them. Once referred, patients can choose any public or private accredited hospital but are not given a choice of specialist. Payment rates for outpatient specialist care are determined by each region, with national averages serving as a reference.

Outpatient specialist visits are generally provided by self-employed specialists working under contract with the SSN. They are paid an hourly fee negotiated nationally between the government and the trade unions; the current rate is approximately EUR 32 (USD 44). Outpatient specialists seeing public patients cannot bill above the fee schedule, but can see private patients without any limitations. Specialists employed by local health units and public hospitals can see private patients in public hospitals by allotting a portion of their extra income to the hospital.

Multispecialty groups are more common in northern regions of the country.

Administrative mechanisms for direct patient payments to providers: Patient copayments are limited to outpatient specialist visits and diagnostic testing, while primary care visits are provided free of charge. Copayments are usually paid by the patient before the visit or test.

After-hours care: After-hours emergency care is the responsibility of local health units, which provide emergency medical services (*Guardia medica*) staffed by continuous-care physicians. The hourly rate, negotiated between the GP trade unions and the government, is approximately EUR 25 (USD 35). After examining patients and providing any initial treatment, the doctors can prescribe medications, issue employees' medical certificates, and recommend hospital admission. The service normally operates at night and on weekends.

Primary care doctors are not required to provide after-hours care, but many are open until 8 p.m. There is no national or regional medical telephone advice line.

Information on a patient's after-hours visit is not routinely sent to the patient's GP. To improve accessibility, government and GP associations are trying to promote a model in which GPs, specialists, and nurses coordinate to ensure 24-hour access and avoid unnecessary use of hospital emergency departments. Implementation is uneven across regions.

Hospitals: Public funds are allocated by local health units to public and accredited private hospitals (for-profit and nonprofit). In 2017, there were approximately 165,000 beds in public hospitals and 44,000 in private accredited hospitals.[9] Public hospitals either are managed directly by the local health units or operate as semi-independent public enterprises.

A diagnosis-related group–based prospective payment system operates across the country and accounts for most hospital revenue. (However, hospitals run directly by local health units typically have global budgets.) Rates include all hospital expenses, including physician salaries, and costs for expensive technologies and medicines. Teaching hospitals receive additional payments — typically 8 percent to 10 percent of overall revenue — to cover extra costs related to teaching.

There are considerable interregional variations in the prospective payment system, such as how fees are set, which services are excluded, and what tools are employed to influence patterns of care. However, all regions have mechanisms for cutting fees once a spending threshold is reached. In all regions, a portion of funding is administered outside the prospective payment system, such as funding of specific functions like emergency departments and teaching programs.

Hospital-based physicians are salaried employees with an average gross income of EUR 106,000 (USD 147,018). Public-hospital physicians are prohibited from treating patients in private hospitals; all public physicians who see private patients in public hospitals pay a portion of their extra income to the hospital.

In April 2015, the Ministry of Health approved a decree for the reorganization of hospital care. The decree classified public hospitals into three groups, based on population size, service intensity, and scope: base, first-level, and second-level.

Mental health care: Mental health care is provided by the National Health Service in a variety of community-based, publicly funded settings, including community mental health centers, community psychiatric diagnostic centers, general hospital inpatient wards, and residential and semiresidential facilities. In 2017, there were about 2,000 residential facilities and 870 semiresidential facilities.[9]

The promotion and coordination of mental health care are the responsibility of mental health departments in local health units. Multidisciplinary teams include psychiatrists, psychologists, nurses, social workers, educators, occupational therapists, people with training in psycho-social rehabilitation, and secretarial staff.

In most cases, primary care does not play a role in the provision of mental health care; a few regions have experimented with assigning responsibility for low-complexity cases (mild depression) to GPs.[10]

Long-term care and social supports: In Italy, home care, residential care, and semiresidential long-term care are covered by the SSN, with delivery of care organized by local health units. All patients are eligible; admission is based on clinical criteria only.

There has been a significant shift of long-term care from institutions to the communities and an emphasis on home care. Patients with long-term care needs receive predominantly home care (approximately 1 million cases in 2017), with fewer patients receiving care in residential facilities (approximately 278,000 beds in 2017) or semiresidential facilities (16,000 beds).[9]

Residential and semiresidential facilities provide nurses, physicians, specialist care, rehabilitation services, medical therapies, and devices. Patients must be referred in order to receive residential care. Cost-sharing for residential services varies widely by region but is generally determined by patients' income. Residential facilities are managed by a mixture of public and private, for-profit and nonprofit organizations.

Community home care is not designed to provide physical or mental health care services but to provide additional assistance during a treatment or therapy. Community home care networks use integrated care teams of nurses, GPs, and specialist physicians to ensure that patient needs are met and families are involved. Community home care is funded publicly.

In spite of government provisions for residential and home care services, long-term care in Italy has traditionally been characterized by a lower degree of public financing and provision than what is found in other European countries. Patients do not receive individual budgets. In addition, no financial support is provided for caregivers, although Italian legislation allows caregivers three days off work per month to look after relatives in need.

Financial assistance for long-term care patients and for their caregivers can take two forms:

- Accompanying allowance: Awarded by the National Pension Institute to all Italian citizens who need continuous assistance. The allowance, which is related to need but not to income or age, amounts to approximately EUR 500 (USD 693) per month. It can be used to buy any type of service.
- Care vouchers: Awarded by municipalities on the basis of income, need, and clinical severity. Only some municipalities currently offer these vouchers. The amount ranges between EUR 300 and EUR 600 (USD 416 and USD 832) per month.

Voluntary organizations still play a crucial role in the delivery of palliative care. A national policy on palliative care has been in place since the late 1990s and has contributed to an increase in services such as hospices, day care centers, and hospital-based palliative care units. In 2017, there were some 270 hospices, with approximately 3,100 beds. However, regional disparities persist: northern regions care, on average, for 95 patients per 100,000 residents at the end of life, while in central and southern regions the rate is 50 per 100,000.[9]

What are the major strategies to ensure quality of care?

Government at both the national and the regional level is responsible for upholding quality and for ensuring that services included in the list of essential benefits are provided and that waiting times are monitored. Quality-improvement goals are usually set out in "Pacts for Health" (*Patto per la salute*) between the regions and the central government that link additional resources to the achievement of goals.

The Ministry of Health's 2015 decree concerning the reorganization of hospital care introduced, for a few procedures, minimum levels of activity and quality thresholds. Many of the law's provisions are in the process of being implemented, and the effects have not yet been evaluated. In addition, several regions have introduced programs for prioritizing the delivery of care on the basis of patient severity and clinical appropriateness of services prescribed.[11]

All health care professionals under contract with the National Health Service must be certified by the central or a regional government, and all SSN staff must participate in compulsory continuing education (150 continuing medical education (CME) credits every three years). The National Commission for Accreditation and Quality of Care is responsible for outlining the criteria used to determine which providers are allowed to provide care on behalf of the SSN and for evaluating regional accreditation models (including private hospitals), which vary considerably across the system.

SSN accreditation hinges on extensive quality criteria, including the appropriateness and timeliness of interventions, health status, and patient satisfaction. It also encompasses management of human and technical resources, consistency of the provider's activity with regional health planning, and an evaluation of the activities conducted and results achieved. Regions have the freedom to set their own accreditation criteria and procedures, as long as the LEA (essential benefits package), is guaranteed. At present, significant variability exists in regional accreditation policies.

National legislation requires all publicly contracted health care providers (hospitals) to issue a "health service chart" with information on service performance, quality indicators, waiting times, quality assurance strategies, and the process for patient complaints. These charts have also been adopted by the private sector for its accreditation process and must be published annually, although dissemination methods are decided regionally. Most providers disseminate these charts through leaflets and the Internet. Nurses and other medical staff are offered financial performance incentives (linked to manager evaluations but not to publicly reported data).

No national patient surveys exist; however, some regions carry out patient satisfaction surveys on a voluntary basis.

The only public reporting on outcomes is the National Outcomes Program, which calculates and reports yearly on a set of hospital outcomes, such as 30-day mortality rates for acute myocardial infarction and admissions for ambulatory care–sensitive conditions.

The National Plan for Clinical Guidelines, implemented in recent years, has produced guidelines on topics ranging from cardiology to cancer prevention and from the appropriate use of antibiotics to cesarean delivery.

Some regions have introduced disease management programs and are experimenting with chronic-care models. Some are maintaining registries, mainly for cancer and diabetes patients. No national registries exist.

At the national level, no public reporting exists on the performance of nursing homes or home care agencies.

What is being done to reduce disparities?

Italy has no national agency tasked with monitoring disparities; in most cases, the monitoring of inequalities is a responsibility of each region.

Interregional inequity is a long-standing concern to both regional and national policymakers. The less-affluent south trails the north in the number of beds and in the availability of advanced medical equipment, has proportionally fewer public versus private facilities, and has less-developed community care services. This gap in availability is increasing. Income-related disparities in self-reported health status are significant.[12]

The regions receive a proportion of funding from an equalization fund, *Fondo Perequativo Nazionale*, which aims to reduce inequalities. Aggregate funding for the regions is set by the Ministry of the Economy and Finance, and the resource allocation mechanism is based on capitation adjusted for demographic characteristics and use of health services by age and sex.

There is no systematic public reporting of health and health access variation, although several public and private institutions occasionally publish reports with analysis of health care variation.

What is being done to promote delivery system integration and care coordination?

Integration of health and social care services has recently improved, with a shift of long-term care from institutions to communities and an emphasis on home care.

The regions have chronic-care management programs that deal mainly with high-prevalence conditions, such as diabetes, congestive heart failure, and respiratory conditions. Each program involves different competencies. Some regions are also trying to set up disease management programs based on the chronic-care model, although the degree of organization varies across regions.

The most recent Pact for Health, signed in July 2014, is a significant step toward care integration: all regions must establish Primary Care Complex Units involving GPs, specialists, nurses, and social workers. To further promote the integration and adoption of multidisciplinary teams, medical homes are being encouraged in some regions, such as Tuscany and Emilia-Romagna, where there are collectively 113 medical homes currently providing multispecialty care to approximately 2.7 million people.

What is the status of electronic health records?

The New Health Information System (*Nuovo sistema informativo sanitario*, or NSIS) is being implemented incrementally, with the goal of establishing a universal system of electronic records connecting every level of care. It currently provides information on approximately 85 percent of services included in the LEA. Primary care is not included, but hospital, emergency, outpatient specialist, residential, and palliative care are, as well as pharmaceuticals. The NSIS currently registers administrative information on care delivered, but medical information appears to be more difficult to gather. No unique patient identifier exists at the national level, while in most regions administrative records are linked together using unique patient identifiers generated at the regional level.

Monitoring and implementation of the NSIS has been assigned to a steering committee, which includes representatives of the central government, regions, and professional colleges.

The national contract for primary care physicians and pediatricians requires them to have computerized systems; in addition, GPs working in teams are requested to connect all their computers to provide shared access to patient medical records.

Some regions have developed computerized networks to facilitate communication among physicians, pediatricians, hospitals, and territorial services and to improve continuity of care. These networks allow the automatic transfer of patient registries and information on services provided, prescriptions for specialist visits and diagnostics, and laboratory and radiology test outcomes. Fourteen regions have also developed a personal electronic health record, accessible by patients, that contains all of their medical information, such as outpatient specialty care results, medical prescriptions, and hospital discharge instructions. Twenty-one percent of people in these regions have activated their personal health records.

There is also a shift underway from paper-based to electronic prescriptions. Currently, 86 percent of all prescriptions (for drugs and specialist care) are issued electronically. However, in a few regions, the proportion is below 50 percent, especially with regard to drugs.

How are costs contained?

Containing health care costs is a core concern of the central government, as Italy's public debt is among the highest of the industrialized nations. Fiscal capacity varies greatly across regions. To meet cost-containment objectives, the central government can impose recovery plans on regions with health care expenditure deficits. These plans identify the tools and measures needed to achieve economic balance, such as revising hospital and diagnostic fees, reducing the number of beds, increasing copayments for pharmaceuticals, and reducing human resources through limited turnover.

All regions have adopted various tools to contain costs. In most cases, these include global budgets for hospital and outpatient care (limited to public-hospital enterprises and the private sector), bulk purchasing for drugs and medical products, and the procurement of services such as laundry, meals, cleaning, and sterilization. Regional governments periodically sign Pacts for Health with the national government that link additional resources to the achievement of health care planning and expenditure goals.

National contracting for personnel payment can in some ways be considered a cost-containment tool: both salaried workers (nurses, physicians, administrative personnel) and primary care physicians are paid in accordance with a national contract, with employers (local health units and public-hospital trusts) having limited flexibility in raising payment levels.

Few regional health technology assessment agencies currently exist, and their primary function is to evaluate individual technologies. Assessments are not mandatory for innovative procedures and devices. However, reference prices for medical devices and pharmaceuticals are set according to cost-effectiveness studies carried out by the National Committee for Medical Devices and the National Drugs Agency. Prices for reimbursable drugs are set in negotiations between the government and the manufacturer using criteria such as comparative cost-effectiveness. Prices for nonreimbursable drugs are set by the market.

What major innovations and reforms have recently been introduced?

Because of the regionalization of the health system, most innovations in the delivery of care take place at the regional rather than the national level, with some regions viewed as leaders in innovation.

In 2017, Parliament introduced compulsory vaccinations for all infants and children up to age 16, following an increase in the number of deaths due to infectious diseases (mainly mumps) and the antivaccination movement. Children who do not comply with the prescribed vaccination are not allowed to attend kindergartens, nurseries, and schools.

In January 2017, the government approved an updated version of essential covered benefits, with significant changes in the outpatient specialist services that can be delivered by the National Health Service and a further shift of hospital care into outpatient settings. The government estimates an additional expenditure of EUR 800 million (USD 1.1 billion) per year for this reform.

The author would like to acknowledge Sarah Jane Reed and David Squires as contributing authors to earlier versions of this profile.

REFERENCES

1. F. Ferré, et al., "Italy: Health System Review," *Health Systems in Transition, 2014,* 16(4): 1–168.
2. Organisation for Economic Co-operation and Development (OECD), OECD Health Statistics, 2019, http://www.oecd.org/els/health-systems/health-data.htm.
3. Ministero dell'Economia e delle Finanze, *Relazione Generale Sulla Situazione Economica Del Paese 2012* (2012).
4. A. Sagan and S. Thompson, *Voluntary Health Insurance in Europe—Country Experience*, no. 42 (European Observatory on Health Systems and Policies, 2016), http://www.euro.who.int/en/about-us/partners/observatory.
5. Sagan and Thompson, *Voluntary Health Insurance in Europe.*
6. Please note that, throughout this profile, all figures in USD were converted from EUR at a rate of EUR 0.721 per USD, the purchasing power parity conversion rate for GDP in 2017 reported by OECD (2018) for Italy.
7. OECD, OECD Health Statistics, https://stats.oecd.org/Index.aspx?DataSetCode=SNA_TABLE4; accessed June 27, 2019.
8. Ferré, et al., "Italy: Health System Review," *Health Systems in Transition.*
9. Ministero della Salute, *Annuario statistico del Servizio Sanitario Nazionale*, 2019.
10. Ferré, et al., "Italy: Health System Review."
11. G. France, F. Taroni, and A. Donatini, "The Italian Health-Care System," *Health Economics*, Sept. 2005 14(Supp1): S187–202.
12. E. Van Doorslaer and X. Koolman, "Explaining the Differences in Income Related Health Inequalities Across European Countries," *Health Economics*, July 2004 13(7): 609–28.

The Japanese Health Care System

Ryozo Matsuda
College of Social Sciences, Ritsumeikan University

Japan's statutory health insurance system provides universal coverage. It is funded primarily by taxes and individual contributions. Enrollment in either an employment-based or a residence-based health insurance plan is required. Benefits include hospital, primary, specialty, and mental health care, as well as prescription drugs. In addition to premiums, citizens pay 30 percent coinsurance for most services, and some copayments. Young children and low-income older adults have lower coinsurance rates, and there is an annual household out-of-pocket maximum for health care and long-term services based on age and income. There are also monthly out-of-pocket maximums. The national government sets the fee schedule. Japan's prefectures develop regional delivery systems. Most residents have private health insurance, but it is used primarily as a supplement to life insurance, providing additional income in case of illness.

How does universal health coverage work?

Japan's statutory health insurance system (SHIS) covers 98.3 percent of the population, while the separate Public Social Assistance Program, for impoverished people, covers the remaining 1.7 percent.[1,2] Citizens and resident noncitizens are required to enroll in an SHIS plan; undocumented immigrants and visitors are not covered.

The SHIS consists of two types of mandatory insurance:

1. employment-based plans, which cover about 59 percent of the population
2. residence-based insurance plans, which include Citizen Health Insurance plans for nonemployed individuals age 74 and under (27% of the population) and Health Insurance for the Elderly plans, which automatically cover all adults age 75 and older (12.7% of the population).

Each of Japan's 47 prefectures, or regions, has its own residence-based insurance plan, and there are more than 1,400 employment-based plans.[3]

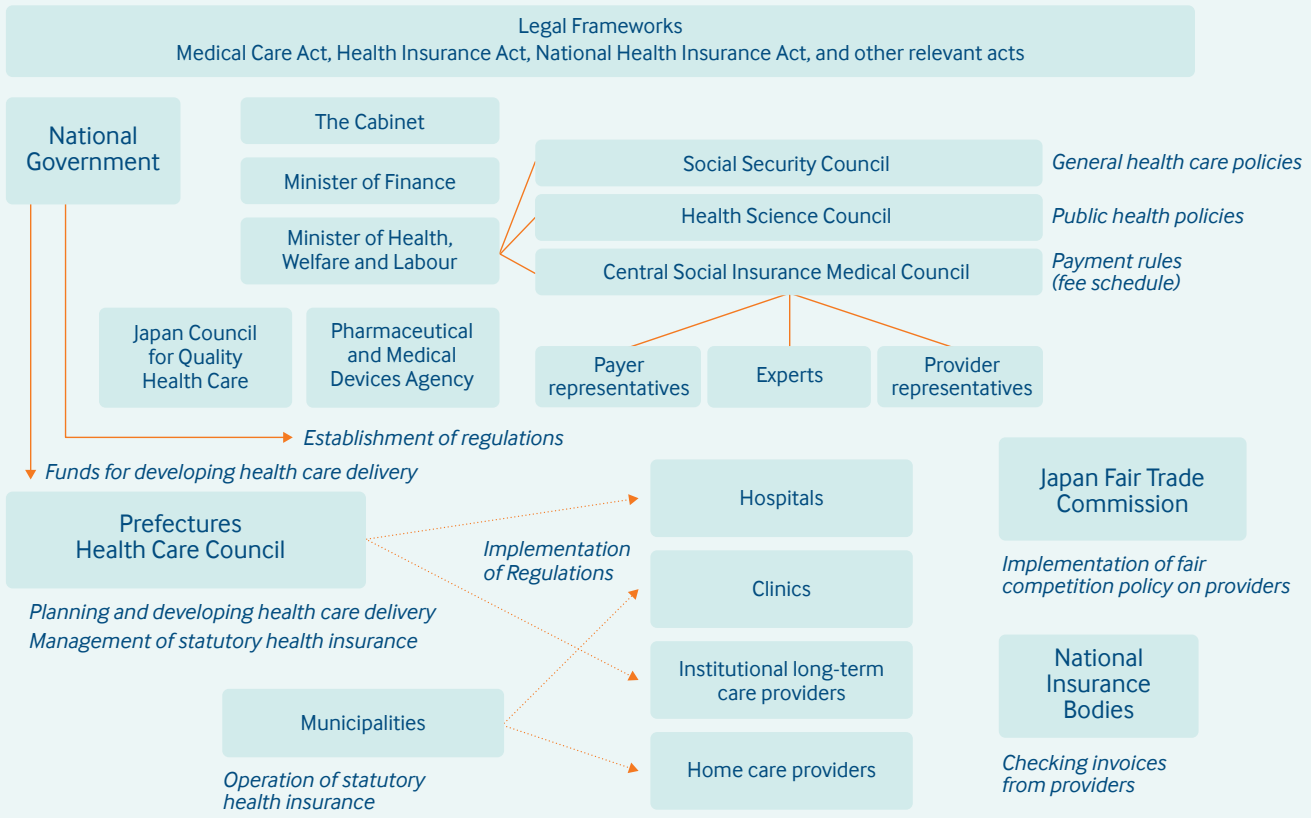
Role of government: The national and local governments are required by law to ensure a system that efficiently provides good-quality medical care. The national government regulates nearly all aspects of the SHIS. National government sets the SHIS fee schedule and gives subsidies to local governments (municipalities and prefectures), insurers, and providers. It also establishes and enforces detailed regulations for insurers and providers.

Japan's prefectures implement national regulations, manage residence-based regional insurance (for example, by setting contributions and pool funds), and develop regional health care delivery networks with their own budgets and funds allocated by the national government. The more than 1,700 municipalities are responsible for organizing health promotion activities for their residents and assisting prefectures with the implementation of residence-based Citizen Health Insurance plans, for example, by collecting contributions and registering beneficiaries.[4]

Government agencies involved in health care include the following:

- the Ministry of Health, Labor and Welfare, which drafts policy documents and makes detailed regulations and rules once general policies are authorized
- the Social Security Council, which is in charge of developing national strategies on quality, safety, and cost control, and sets guidelines for determining provider fees
- the Central Social Insurance Medical Council, which defines the benefit package and fee schedule
- the Pharmaceutical and Medical Devices Agency, which reviews pharmaceuticals and medical devices for quality, efficacy, and safety
- the Central Social Insurance Medical Council, which sets the SHIS list of covered pharmaceuticals and their prices.[5]

ORGANIZATION OF THE HEALTH SYSTEM IN JAPAN



Note: This chart illustrates a very simplified structure of the complex health care governance in Japan.
Source: R. Matsuda, College of Social Sciences, Ritsumeikan University, 2019.

Role of public health insurance: In 2015, estimated total health expenditures amounted to approximately 11 percent of GDP, of which 84 percent was publicly financed, mainly through the SHIS.[6] Funding of health expenditures is provided by taxes (42%), mandatory individual contributions (42%), and out-of-pocket charges (14%).[7]

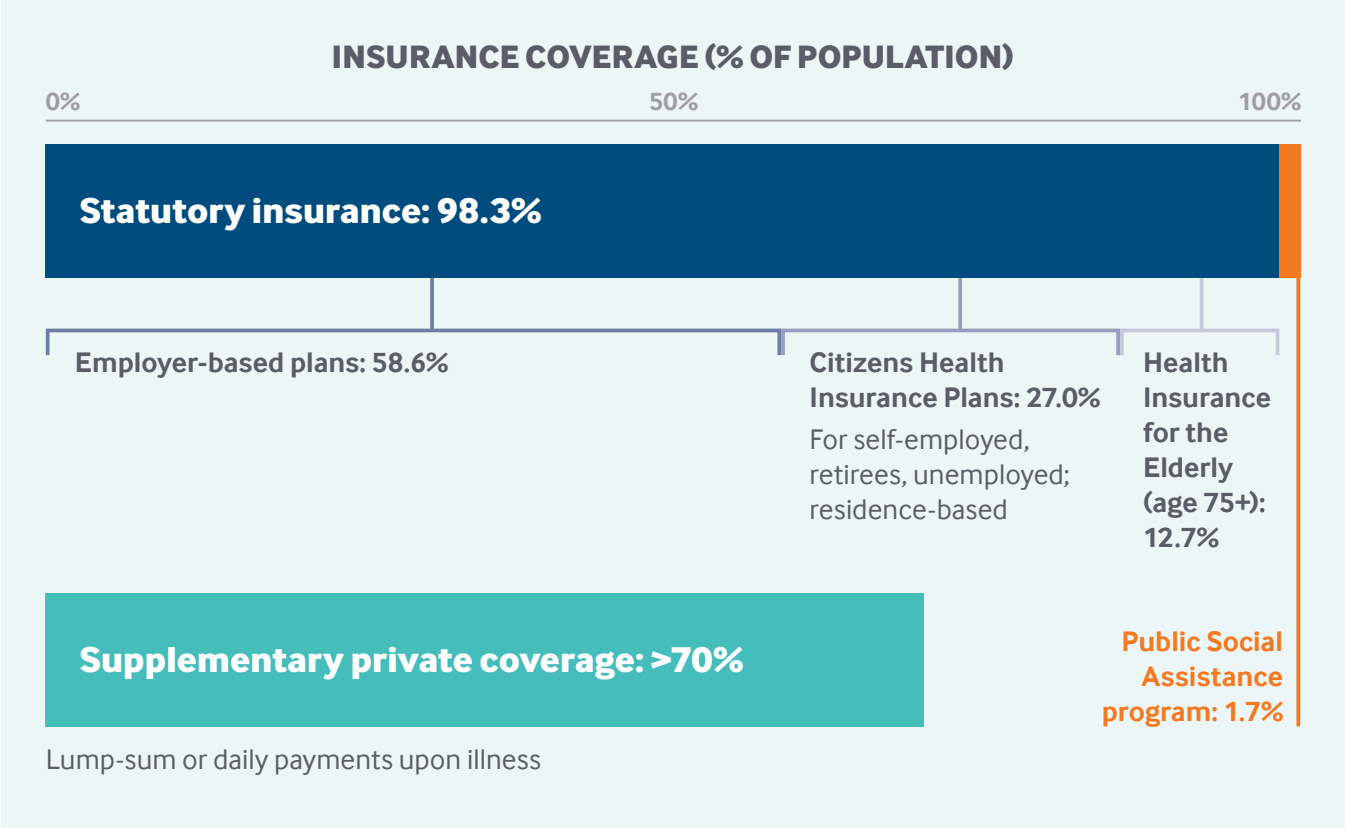
In employment-based plans, employers and employees share mandatory contributions. The contribution rates are about 10 percent of both monthly salaries and bonuses and are determined by an employee's income. Contribution rates are capped. In Tokyo, the maximum monthly salary contribution in 2018 was JPY 137,000 (USD 1,370) and the maximum contribution taken from bonuses was JPY 5,730,000 (USD 57,300).[8,9,10] These contributions are tax-deductible, and vary between types of insurance funds and prefectures. For residence-based insurance plans, the national government funds a proportion of individuals' mandatory contributions, as do prefectures and municipalities. The Japan Health Insurance Association, which insures employers and employees of small and medium-sized companies, and health insurance associations that insure large companies also contribute to Health Insurance for the Elderly plans. Finally, there are complex cross-subsidies among and within the different SHIP plans.[11]

The Public Social Assistance Program, separate from the SHIS, is paid through national and local budgets.

Role of private health insurance: Although the majority (more than 70%) of the population holds some form of secondary, voluntary private health insurance,[12] private plans play only a supplementary or complementary role. Historically, private insurance developed as a supplement to life insurance. It provides additional income in case of sickness, usually as a lump sum or in daily payments over a defined period, to sick or hospitalized insured persons.

The number of supplementary medical insurance policies in force has gradually increased, from 23.8 million in 2010 to 36.8 million in 2017.[13] The provision of privately funded health care has been limited to services such as orthodontics. Both for-profit and nonprofit organizations operate private health insurance.

Part of an individual's life insurance premium and medical and long-term care insurance contributions can be deducted from taxable income.[14] Employers may have collective contracts with insurance companies, lowering costs to employees.



Services covered: All SHIS plans provide the same benefits package, which is determined by the national government:

- hospital visits
- primary and specialty care
- mental health care
- approved prescription drugs
- home care services provided by medical institutions
- hospice care
- physical therapy
- most dental care.

The SHIS does not cover corrective lenses unless they're prescribed by physicians for children up to age 9. Optometry services provided by nonphysicians also are not covered.

Although maternity care is generally not covered, the SHIS provides medical institutions with a lump-sum payment for childbirth services. In addition, local governments subsidize medical checkups for pregnant women.

Home care services provided by nonmedical institutions are covered by long-term care insurance (LTCI) (see "Long-term care and social supports" below).

Durable medical equipment prescribed by physicians (such as oxygen therapy equipment) is covered by SHIS plans. People with disabilities who need other equipment like hearing aids or wheelchairs receive government subsidies to help cover the cost.

Select preventive services, including some screenings and health education, are covered by SHIS plans, while cancer screenings are delivered by municipalities.

Cost-sharing and out-of-pocket spending: In 2015, out-of-pocket payments accounted for 14 percent of current health expenditures. There are no deductibles, but SHIS enrollees pay coinsurance and copayments.

SHIS enrollees have to pay 30 percent coinsurance for all health services and pharmaceuticals; young children and adults age 70 and older with lower incomes are exempt from coinsurance.

Small copayments are charged for primary care and specialty visits (see table). Residents also pay user charges for preventive services, such as cancer screenings, delivered by municipalities.

Providers are prohibited from balance billing or charging fees above the national fee schedule, except for some services specified by the Ministry of Health, Labor and Welfare, including experimental treatments, outpatient services of large multispecialty hospitals, after-hours services, and hospitalizations of 180 days or more.

Safety nets: In the SHIS, catastrophic coverage stipulates a monthly out-of-pocket threshold, which varies according to enrollee age and income. For example, the monthly maximum for people under age 70 with modest incomes is JPY 80,100 (USD 801); above this threshold, a 1 percent coinsurance rate applies. Low-income people do not pay more than JPY 35,400 (USD 354) a month.

Subsidies (mostly restricted to low-income households) further reduce the burden of cost-sharing for people with disabilities, mental illnesses, and specified chronic conditions.

In addition, there is an annual household health and long-term care out-of-pocket ceiling, which varies between JPY 340,000 (USD 3,400) and JPY 2.12 million (USD 21,200) per enrollee, according to income and age. Above this ceiling, all payments can be fully reimbursed.

People can deduct annual expenditures on health services and goods between JPY 100,000 (USD 1,000) and JPY 2 million (USD 20,000) from taxable income. In addition, expenditures for copayments, balance billing, and over-the-counter drugs are allowable as tax deductions.

Other safety nets for SHIS enrollees include the following:

- Enrollees in employment-based plans who are on parental leave are exempt from paying monthly mandatory salary contributions.
- Enrollees in Citizen Health Insurance plans who have relatively lower incomes (such as the unemployed, the self-employed, and retirees) and those with moderate incomes who face sharp, unexpected income reductions are eligible for reduced mandatory contributions.
- Reduced coinsurance rates apply to patients with one of the 306 designated long-term diseases if they use designated health care providers. The reduced rates vary by income.
- Approved providers are allowed to reduce coinsurance for low-income people through the Free/Lower Medical Care Program.

Low-income people in the Public Social Assistance Program do not incur any user charges.[15]

TYPICAL PATIENT COPAYMENTS AND SAFETY NETS			
SERVICE	**FEES PER ENCOUNTER/ SERVICE**	**MAXIMUM OUT-OF-POCKET COSTS**	**SAFETY NET**
Primary care visit **Specialist consultation** **Hospitalization (per day or visit)** **Prescription drugs (outpatient)**	Coinsurance: 30%	Monthly caps apply, which vary by age and income. Examples of monthly caps include: • low-income people of all ages: JPY 35,400 (USD 354) • moderate-income people under age 70: JPY 80,100 (USD 801) An annual cap also applies for both health and long-term care spending: JPY 340,000–2.12 million (USD 3,400–21,200)	Reduced coinsurance rates for: • people with chronic illness • children age 6 and younger (beyond age 6 in many regions) • older adults with low incomes A variety of other safety nets are available, including subsidies for people with disabilities, mental illnesses, and specified chronic conditions.

How is the delivery system organized and how are providers paid?

Physician education and workforce: The number of people enrolling in medical school and the number of basic medical residency positions are regulated nationally. The number of residency positions in each region is also regulated.

Approximately two-thirds of medical students study at public medical schools, while the remaining one-third are enrolled at private schools. Total tuition fees for a public six-year medical education program are around JPY 3.5 million (USD 35,000). Total private school tuition is JPY 20 million–45 million (USD 200,000–450,000).[16]

Since the mid-1950s, the government has been working to increase health care access in remote areas. Recent measures include subsidies for local governments in those areas to establish and maintain health facilities and develop student-loan forgiveness programs for medical professionals who work in their jurisprudence. Most of these measures are implemented by prefectures.[17]

Primary care: Historically, there has been no institutional or financial distinction between primary care and specialty care in Japan. The idea of "general practice" has only recently developed.

Primary care is provided mainly at clinics, with some provided in hospital outpatient departments. Most clinics (83% in 2015) are privately owned and managed by physicians or by medical corporations (health care management entities usually controlled by physicians). A smaller proportion are owned by local governments, public agencies, and not-for-profit organizations.

Primary care practices typically include teams with a physician and a few employed nurses. In 2014, the average clinic had 6.8 full-time-equivalent workers, including 1.3 physicians, 2.0 nurses, and 1.8 clerks.[18] Nurses and other staff are usually salaried employees. In some places, nurses serve as case managers and coordinate care for complex patients, but duties vary by setting.

Clinics can dispense medication, which doctors can provide directly to patients. Use of pharmacists, however, has been growing; 73 percent of prescriptions were filled at pharmacies in 2017.[19]

Patients are not required to register with a practice, and there is no strict gatekeeping. However, the government encourages patients to choose their preferred doctors, and there are also patient disincentives for self-referral, including extra charges for initial consultations at large hospitals.

Payments for primary care are based on a complex national fee-for-service schedule, which includes financial incentives for coordinating the care of patients with chronic diseases (known as Continuous Care Fees) and for team-based ambulatory and home care. The schedule, set by the government, includes both primary and specialist services, which have common prices for defined services, such as consultations, examinations, laboratory tests, imaging tests, and defined chronic disease management. In some cases, providers can choose to be paid on a per-case basis or on a monthly basis. Bundled payments are not used. Providers are usually prohibited from balance billing, but can charge for some services (see "Cost-sharing and out-of-pocket spending" above).

Outpatient specialist care: Most outpatient specialist care is provided in hospital outpatient departments, but some is also available at clinics, where patients can visit without referral.

Fees are determined by the same schedule that applies to primary care (see above).

At hospitals, specialists are usually salaried, with additional payments for extra assignments, like night-duty allowances. Those working at public hospitals can work at other health care institutions and privately with the approval of their employers; however, even in such cases, they usually provide services covered by the SHIS.

The employment status of specialists at clinics is similar to that of primary care physicians. Physicians working at medium-sized and large hospitals, in both inpatient and outpatient settings, earned on average JPY 1,514,000 (USD 15,140) a month in 2017.[20]

Administrative mechanisms for direct patient payments to providers: Clinics and hospitals send insurance claims, mostly online, to financing bodies (intermediaries) in the SHIS, which pay a major part of the fees directly to the providers. Patients pay cost-sharing at the point of service.

After-hours care: After-hours care is provided by hospital outpatient departments, where on-call physicians are available, and by some medical clinics and after-hours care clinics owned by local governments and staffed by physicians and nurses.

The national government gives subsidies to local governments for these clinics. Hospitals and clinics are paid additional fees for after-hours care, including fees for telephone consultations.

Patients can walk in at most hospitals and clinics for after-hours care. Patient information from after-hours clinics is provided to family physicians, if necessary. Such information is often handed to patients to show to family physicians.

There is a national pediatric medical advice telephone line available after hours. In some regions and metropolitan areas, fire and emergency departments organize telephone emergency consultation with nurses and trained staff, supported by physicians.[21]

Hospitals: As of 2016, 15 percent of hospitals are owned by national or local governments or closely related agencies. The rest are private and nonprofit, some of which receive subsidies because they've been designated public interest medical institutions.[22,23] The private sector has not been allowed to manage hospitals, except in the case of hospitals established by for-profit companies for their own employees.

Acute-care hospitals, both public and private, choose whether to be paid strictly under traditional fee-for-service or under a diagnosis-procedure combination (DPC) payment approach, which is a case-mix classification similar to diagnosis-related groups.[24] The DPC payment consists of a per-diem payment for basic hospital services and less-expensive treatments and a fee-for-service payment for specified expensive services, such as surgical procedures or radiation therapy.[25] Most acute-care hospitals choose the DPC approach. Episode-based payments involving both inpatient and outpatient care are not used.

Mental health care: Mental health care is provided in outpatient, inpatient, and home care settings, with patients charged the standard 30 percent coinsurance, reduced to 10 percent for individuals with chronic mental health conditions. Covered services include psychological tests and therapies, pharmaceuticals, and rehabilitative activities. Specialized mental health clinics and hospitals exist, but services for depression, dementia, and other common conditions are also provided by primary care.

Most psychiatric beds are in private hospitals owned by medical corporations.

Long-term care and social supports: National compulsory long-term care insurance (LTCI), administered by municipalities under the guidance of the national government, covers those age 65 and older, and people ages 40 to 64 who have select disabilities. LTCI covers:

- home care
- respite care
- services at long-term care facilities
- disability equipment
- assistive devices
- home modification.

End-of-life care is covered by the SHIS and LTCI. The SHIS covers hospice care (both at home and in facilities), palliative care in hospitals, and home medical services for patients at the end of life. Either the SHIS or LTCI covers home nursing services, depending on patients' needs. Home help services are covered by LTCI.

Taxes provide roughly half of LTCI funding, with national taxes providing one-fourth of this funding and taxes in prefectures and municipalities providing another one-fourth.

The remaining LTCI funding comes from individual mandatory contributions set by municipalities; these are based on income (including pensions) as well as estimated long-term care expenditures in the resident's local jurisdiction. Citizens age 40 and over pay income-related contributions in addition to SHIS contributions. Employers and employees split their contributions evenly.

A 20 percent coinsurance rate applies to all covered LTCI services, up to an income-related ceiling. For low-income people age 65 and older, the coinsurance rate is reduced to 10 percent. There is an additional copayment for bed and board in institutional care, but it is waived or reduced for low-income individuals. All costs for beneficiaries of the Public Social Assistance Program are paid from local and national tax revenue.[26]

The majority of LTCI home care providers are private. In 2016, 66 percent of home help providers, 47 percent of home nursing providers, and 47 percent of elderly day care service providers were for-profit, while most of the rest were nonprofit.[27] Meanwhile, most LTCI nursing homes, whose services are nearly fully covered, are managed by nonprofit social welfare corporations.

Family care leave benefits (part of employment insurance) are paid for up to 93 days when employees take leave to care for family members with long-term care needs. A portion of long-term care expenses can be deducted from taxable income.

What are the major strategies to ensure quality of care?

By law, prefectures are responsible for making health care delivery "visions," which include detailed service plans for treating cancer, stroke, acute myocardial infarction, diabetes mellitus, and psychiatric disease. These delivery visions also include plans for developing pediatric care, home care, emergency care, prenatal care, rural care, and disaster medicine. Structural, process, and outcome indicators are identified, as well as strategies for effective and high-quality delivery. Prefectures promote collaboration among providers to achieve these plans, with or without subsidies as financial incentives.

Prefectures are in charge of the annual inspection of hospitals. Penalties include reduced reimbursement rates if staffing per bed falls below a certain ratio. Hospital accreditation is voluntary. As of 2016, 26 percent of hospitals were accredited by the Japan Council for Quality Health Care, a nonprofit organization.[28] The names of hospitals that fail the accreditation process are not disclosed.

Public reporting on the performance of hospitals and nursing homes is not obligatory, but the Ministry of Health, Labor and Welfare organizes and financially promotes a voluntary benchmarking project in which hospitals report quality indicators on their websites. National and local government facilitate mandatory third-party evaluations of welfare institutions, including nursing homes and group homes for people with dementia, to improve care.

To practice, physicians are required to obtain a license by passing a national exam. Although physicians are not subject to revalidation, specialist societies have introduced revalidation for qualified specialists. Some physician fees are paid on the condition that physicians have completed continuing medical education credits. Public reporting on physician performance is voluntary.

Every prefecture has a Medical Safety Support Center for handling complaints and promoting safety. Since 2004, advanced treatment hospitals have been required to report adverse events to the Japan Council for Quality Health Care. The council works to improve quality throughout the health system and develops clinical guidelines, although it does not have any regulatory power to penalize poorly performing providers.

The Japanese Medical Specialty Board, a physician-led nonprofit body, established a new framework for standards and requirements of medical specialty certification; it was implemented in 2018.

The government promotes the development of disease and medical device registries, mostly for research and development.

Surveys of inpatients' and outpatients' experiences are conducted and publicly reported every three years. Nonprofit organizations work toward public engagement and patient advocacy, and every prefecture establishes a health care council to discuss the local health care plan. Under the Medical Care Law, these councils must have members representing patients.

What is being done to reduce disparities?

Reducing health disparities between population groups has been a goal of Japan's national health promotion strategy since 2012. The strategy sets two objectives: the reduction of disparities in healthy life expectancies between prefectures and an increase in the number of local governments organizing activities to reduce health disparities.[29]

Health disparities between regions are regularly reported by the national government; disparities between socioeconomic groups and in health care access have been occasionally measured and reported by researchers.

What is being done to promote delivery system integration and care coordination?

The national government prioritizes care coordination and develops financial incentives to encourage providers to coordinate care across care settings, particularly in cancer, stroke, cardiac care, and palliative care. For example, hospitals admitting stroke victims or patients with hip fractures can receive additional fees if they use post-discharge protocols and have contracts with clinic physicians to provide effective follow-up care after discharge. The clinic physicians also receive additional fees.

The government also provides subsidies to leading providers in the community to facilitate care coordination. Highly specialized, large-scale hospitals with 500 beds or more have an obligation to promote care coordination among providers in the community; meanwhile, they are obliged to charge additional fees to patients who have no referral for outpatient consultations.

There are more than 4,000 community comprehensive support centers that coordinate services, particularly for those with long-term conditions.[30] Funded by LTCI, they employ care managers, social workers, and long-term care support specialists. Currently, there is no pooled funding between the SHIS and LTCI.

Regional and large-city governments are required to establish councils to promote integration of care and support for patients with 306 designated long-term diseases.

In addition, the national government has been promoting the idea of selecting preferred physicians. The Continuous Care Fees program pays physicians monthly payments for providing continuous care (including referrals to other providers, if necessary) to outpatients with chronic disease. The 2018 revision of the SHIS fee schedule ensures that physicians in this program receive a generous additional initial fee for their first consultation with a new patient.[31]

What is the status of electronic health records?

Electronic health record networks have been developed only as experiments in selected areas. Interoperability between providers has not been generally established. The government has been addressing technical and legal issues prior to establishing a national health care information network so that health records can be continuously shared by patients, physicians, and researchers by 2020.[32] Unique patient identifiers for health care are to be developed and linked to the Social Security and Tax Number System, which holds unique identifiers for taxation.

How are costs contained?

The 30 percent coinsurance in the SHIS does not appear to work well for containing costs. By contrast, price regulation for all services and prescribed drugs seems a critical cost-containment mechanism. The fee schedule is revised every other year by the national government, following formal and informal stakeholder negotiations. The revision involves three levels of decision-making:

- the overall rate of increase or decrease in prices of all benefits covered by SHIH
- revised prices for drugs and devices
- prices of individual services.[33]

For medical, dental, and pharmacy services, the Central Social Insurance Medical Council revises provider service fees on an item-by-item basis to meet overall spending targets set by the cabinet. Highly profitable categories usually see larger reductions.

Price revisions for pharmaceuticals and medical devices are determined based on a market survey of actual current prices (which are usually less than the listed prices). Drug prices can be revised downward for new drugs selling in greater volume than expected and for brand-name drugs when generic equivalents hit the market. Prices of generic drugs have gradually decreased. Prices of medical devices in the United States, the United Kingdom, Germany, France, and Australia are also considered in the revision.

The fee schedule includes financial incentives to improve clinical decision-making. For example, if a physician prescribes more than six drugs to a patient on a regular basis, the physician receives a reduced fee for writing the prescription. Insurers' peer-review committees monitor claims and may deny payment for services deemed inappropriate.

Prefectures regulate the number of hospital beds using national guidelines. The number of medical students is also regulated (see "Physician education and workforce" above).

The national Cost-Containment Plan for Health Care, introduced in 2008 and revised every five years, is intended to control costs by promoting healthy behaviors, shortening hospital stays through care coordination and home care development, and promoting the efficient use of pharmaceuticals. Prefectures also set health expenditure targets with planned policy measures, in accordance with national guidelines.

What major innovations and reforms have recently been introduced?

The Social Security Council set the following four objectives for the 2018 fee schedule revision:

- developing efficient and comprehensive care in the community
- developing safe, reliable, high-quality care and creating services tailored to emerging needs
- reducing the workload of health care workers
- making the health care system more efficient and sustainable.[34]

To proceed with these policy objectives, the government modified numerous incentives in the fee schedule. In addition to the Continuous Care Fees (see "What is being done to promote delivery system integration and care coordination?" above), hospital payments are now more differentiated, according to hospitals' staff density, than those of the previous schedule.

The author would like to acknowledge David Squires as a contributing author to earlier versions of this profile.

REFERENCES

1. Figures are calculated by the author using figures published in the Ministry of Health, Labour and Welfare (MHWL)"s 2017 *Key Statistics in Health Care*. The figures are based on the number of persons registered for any plans in either the SHIS or the Public Social Assistance Program.
2. Throughout this profile, certain Japanese terms are translated into English by the author. Some English names of insurance plans, acts, and organizations are different from the official translation.
3. National Institute of Population and Social Security Research, *Social Security in Japan 2014* (Tokyo: NIPSSR), http://www.ipss.go.jp/s-info/e/ssj2014/index.asp.; accessed Aug. 20, 2014.
4. N. Ikegami, et al., "Japanese Universal Health Coverage: Evolution, Achievements, and Challenges," *The Lancet* 378, no. 9796 (Sept. 17, 2011): 1106–15; R. Matsuda, "Health System in Japan," in E. van Ginneken and R. Busse, eds., *Health Care Systems and Policies* (Springer, 2018).
5. Regulatory Information Task Force, Japan Pharmaceutical Manufacturers Association, *Pharmaceutical Administration and Regulations in Japan* (2015), http://www.jpma.or.jp/english/parj/pdf/2015.pdf; accessed Oct. 8, 2016.
6. OECD, OECD.Stat (database). DOI: 10.1787/data-00285-en; accessed July 18, 2018.
7. OECD, OECD.Stat.
8. "Standard monthly remuneration" and "standard bonus" amounts are determined from actual paid monthly remuneration and bonuses with the prescribed remuneration table, set by the national government. They serve as the basis for calculating the benefits and insurance contributions for employment-based health insurance and pension. See Japan Pension Service, *Employees" Health Insurance System and Employees" Pension Insurance System* (2018), https://www.nenkin.go.jp/international/english/healthinsurance/employee.html; accessed July 23, 2018.
9. Japan External Trade Organization, *Investing in Japan, 2018*, https://www.jetro.go.jp/en/invest/setting_up/section4/page9.html; accessed July 23, 2018.
10. Please note that, throughout this profile, all figures in USD were converted from JPY at a rate of about JPY100 per USD, the purchasing power parity conversion rate for GDP in 2018 for Japan, reported by OECD, "Prices: Purchasing Power Parities for GDP and Related Indicators," *Main Economic Indicators* (database). DOI: http://dx.doi.org/10.1787/data-00608-en; accessed July 18, 2018.
11. H. Sakamoto et al., "Japan: Health System Review," *Health Systems in Transition* 8, no. 1 (2018).
12. Japan Institute of Life Insurance, *Survey on Life Protection, FY 2016*.
13. See Japan Institute of Life Insurance, *FY2013 Survey on Life Protection*, "FY2013 Survey on Life Protection" (Quick Report Version) (Tokyo: JILI, 2013), http://www.jili.or.jp/research/report/pdf/FY2013_Survey_on_Life_Protection_(Quick_Report_Version).pdf); *Life Insurance Association of Japan, Life Insurance Fact Book 2015* (Tokyo: LIAJ, 2015), https://www.seiho.or.jp/english/statistics/trend/pdf/2015.pdf; and *LIAJ, Life Insurance Fact Book 2018* (Tokyo: LIAJ, 2018), https://www.seiho.or.jp/english/statistics/trend/pdf/2018.pdf.
14. The rule for deduction explained here is applied for contracts after 2012.
15. R. Matsuda, "Public/Private Health Care Delivery in Japan: and Some Gaps in "Universal" Coverage," *Global Social Welfare*, 2016 3: 201–12.
16. Figures for medical schools are summarized by the author using the following sources in May 2018: METI, *Trends in University Tuition Fees* (undated), http://www.mext.go.jp/a_menu/koutou/shinkou/07021403/__icsFiles/afieldfile/2017/12/26/1399613_03.pdf; the Promotion and Mutual Aid Corporation for Private Schools of Japan, *Profiles of Private Universities* (database), http://up-j.shigaku.go.jp/; and selected university websites.
17. MHLS, 2017, *Annual Health, Labour and Welfare Report 2017* (provisional English translated edition), https://www.mhlw.go.jp/english/wp/wp-hw11/dl/02e.pdf; accessed July 15, 2018.
18. The figures are calculated from statistics of the Ministry of Health, Labour and Welfare, *2014 Survey of Medical Institutions* (MHLW, 2016).
19. Japan Pharmaceutical Association, *Annual Report of JPA* (Tokyo: JPA, 2014), http://www.nichiyaku.or.jp/e/data/anuual_report2014e.pdf; accessed Sept. 3, 2016.
20. MHWL, Basic Survey on Wage Structure (2017), 2018.
21. Fire and Disaster Management Agency, *Annual Report of Fire and Disaster Management, FY2018* (Tokyo: FDMA, 2019): 202–203.
22. The figure is calculated from statistics of the MHLW, *2016 Survey of Medical Institutions*, 2016.
23. Matsuda, "Public/Private Health Care Delivery in Japan."
24. S. Matsuda et al., "Development and Use of the Japanese Case-Mix System," *Eurohealth* 14, no. 3 (2008): 25–30.
25. M. Ishii, "DRG/PPS and DPC/PDPS as Prospective Payment Systems," *JMAJ*, 55 no. 4 (2012): 279–91; MHLW, "Summary of the Revision of the Fee Schedule in 2018: DPC/PDPS" (in Japanese), https://www.mhlw.go.jp/file/06-Seisakujouhou-12400000-Hokenkyoku/0000197983.pdf; accessed July 17, 2018; OECD, "Health-Care Reform in Japan: Controlling Costs, Improving Quality and Ensuring Equity," *OECD Economic Surveys: Japan 2009* (OECD Publishing, 2009).
26. NIPSSR, *Social Security in Japan*, 2014.
27. MHLW, "Survey of Institutions and Establishments for Long-Term Care, 2016" (in Japanese), 2017.
28. Japan Council for Quality Health Care, *Hospital Accreditation Data Book FY2016* (JCQHC, 2018) (in Japanese), https://www.jq-hyouka.jcqhc.or.jp/wp-content/uploads/2018/03/20180228-1_databook_for_web2.pdf; accessed July 17, 2018.
29. MHLW, "A Basic Direction for Comprehensive Implementation of National Health Promotion" (Ministerial Notification no. 430) (tentative English translation), http://www.mhlw.go.jp/file/06-Seisakujouhou-10900000-Kenkoukyoku/0000047330.pdf; accessed Oct. 15, 2014.
30. MHLW, *What the Ministry of Health, Labour and Welfare Does for the Elderly* (in Japanese), http://www.mlit.go.jp/common/001083368.pdf; accessed Aug. 26, 2016.
31. The Cabinet, "Growth Strategy 2017," 2017 (in Japanese); a summary of the document in English is available at http://www.kantei.go.jp/jp/singi/keizaisaisei/pdf/miraitousi2017_summary.pdf.
32. N. Ikegami and G.F. Anderson, "In Japan, All-Payer Rate Setting Under Tight Government Control Has Proved to Be an Effective Approach to Containing Costs," *Health Affairs* 2012 31(5): 1049–56; H. Kawaguchi, S. Koike, and L. Ohe, "Regional Differences in Electronic Medical Record Adoption in Japan: A Nationwide Longitudinal Ecological Study," *International Journal of Medical Informatics 2018* 115: 114–19.
33. Committee on Health Insurance and Committee on Health Care of the Social Security Council, *Principles for the 2018 Revision of the Fee Schedule* (CHI and CHC, 2015) (in Japanese).
34. Council for the Realization of Work Style Reform, *The Action Plan for the Realization of Work Style Reform* (CRWSR, 2017) (in Japanese); a provisional English translation is available at https://www.kantei.go.jp/jp/headline/pdf/20170328/07.pdf.

The Dutch Health Care System

Joost Wammes, Niek Stadhouders, and Gert Westert,
Radboud University Medical Center

The Netherlands' universal social health insurance approach merges public and private insurance. All residents are required to purchase statutory health insurance from private insurers, which are required to accept all applicants. Financing is primarily public, through premiums, tax revenues, and government grants. The national government is responsible for setting health care priorities and monitoring access, quality, and costs. Standard benefits include hospital, physician, home nursing, and mental health care, as well as prescription drugs. Adults pay premiums, annual deductibles, and coinsurance or copayments on select services and drugs. The government pays for children's coverage up to age 18.

How does universal health coverage work?

In the Netherlands, a national health insurance program was first rolled out in 1941, reflecting the German Bismarck model of public and private health insurers.[1] Around 63 percent of the population was covered by public health insurance, while the more affluent could opt for private insurance or choose to remain uninsured.

At the turn of the century, concerns over inefficiencies and long waiting lists provided momentum for market-oriented reform based on the managed competition model proposed by American economist Alain C. Enthoven.[2] The 2006 Health Insurance Act merged the traditional public and private insurance markets into one universal social health insurance program underpinned by private insurance and mandatory coverage.

All residents (and nonresidents who pay Dutch income tax) must purchase statutory health insurance from private insurers. Adults choose a policy on an individual basis (no family coverage), and children under 18 are then automatically covered. Insurers are required to accept all applicants, and enrollees have the right to change their insurer each year.

The uninsured are fined, and their insurance premiums may be levied directly from income. People who conscientiously object to insurance can opt out by making mandatory contributions into a health savings account. Active members of the armed forces (who are covered by the Ministry of Defense) are exempt.

Undocumented immigrants cannot purchase health insurance and have to pay for most treatments out-of-pocket (excluding acute care, obstetric services, and long-term care). However, some mechanisms are in place to reimburse costs that undocumented immigrants are unable to pay. Political asylum–seekers fall under a separate, limited insurance plan. Permanent residents living in the Netherlands for more than three months are obliged to purchase private insurance. Short-term visitors are required to purchase insurance for the duration of their visit if they are not covered through their home country.

Since 2011, the number of uninsured in the Netherlands has steadily declined. At the end of 2016, 23,000 people (less than 0.2% of the population) remained uninsured.

Role of government: The national government has overall responsibility for setting health care priorities; introducing legislative changes when necessary; and monitoring access, quality, and costs in the country's market-based system.

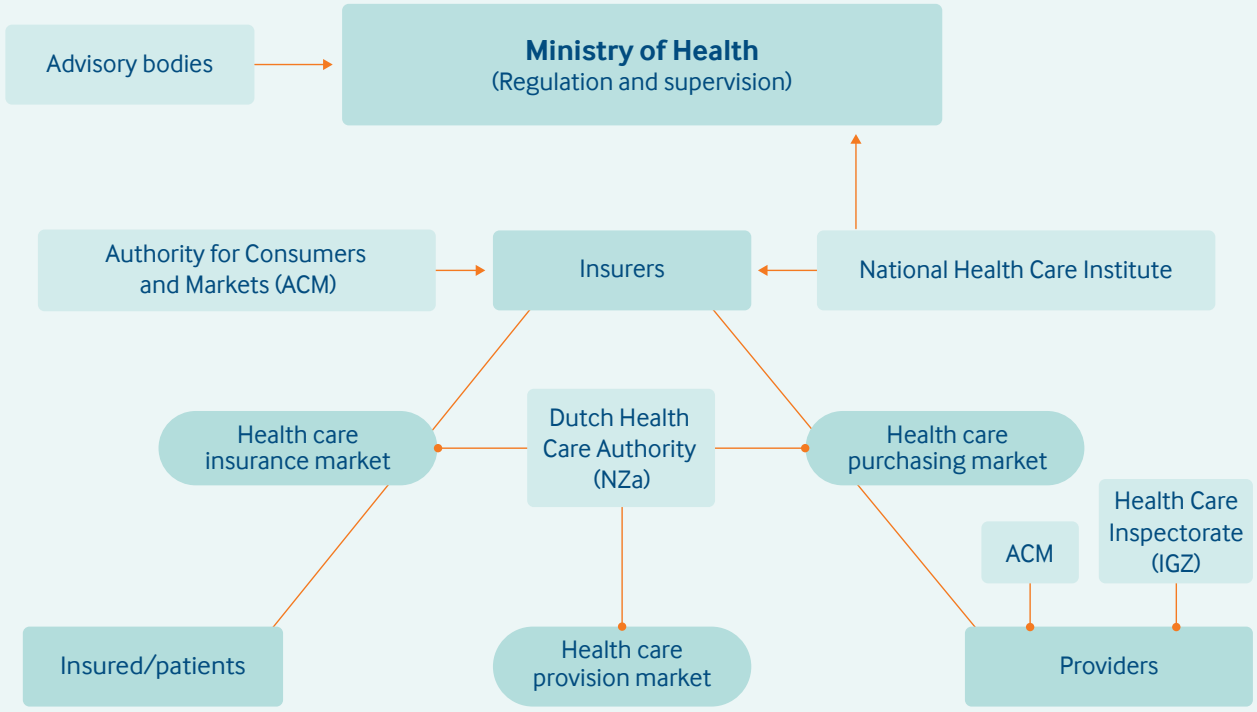
The municipalities are responsible for overseeing some health care services, including preventive screenings and outpatient long-term services. The federal Ministry of Health's role is to safeguard health care from a distance rather than managing it directly.

A number of arm's-length (independent) agencies are responsible for setting operational priorities:

- At the national level, the Health Council advises government on evidence-based medicine, health care, public health, and environmental protection.
- The Medicines Evaluation Board oversees the efficacy, safety, and quality of medicines.
- The National Health Care Institute assesses new technologies for efficacy and cost-effectiveness, and advises the Ministry of Health on whether to include those technologies in the mandatory benefit package.
- The Dutch Health Care Authority (Nederlandse Zorgautoriteit) has primary responsibility for ensuring that the health insurance, health care purchasing, and care delivery markets all function appropriately.

- The Dutch Competition Authority (Autoriteit Consument en Markt) enforces antitrust laws among both insurers and providers.
- The Health Care Inspectorate supervises the quality, safety, and accessibility of care. Self-regulation by medical doctors is also an important aspect of the Dutch system.3
- Health information technology (IT) is not centralized in one body. The Union of Providers for Health Care Communication (Vereniging van Zorgaanbieders voor Zorgcommunicatie) is responsible for the exchange of data via an IT infrastructure.

ORGANIZATION OF THE HEALTH SYSTEM IN THE NETHERLANDS



Source: J. Wammes, P. Jeurissen, and G. Westert, Radboud University Medical Center, 2014.

Role of public health insurance: In 2016, the Netherlands spent 10.5 percent of its GDP on health care, and 81 percent of spending was collectively financed through a combination of earmarked payroll taxes paid by employers (46%), general taxation (22%), insurance premiums paid by individuals (21%), and copayments (11%).[4]

Statutory health insurance is financed partially through a nationally defined annual income tax at 6.9 percent of income up to EUR 54,614 (USD 69,989).[5] The income tax accounts for 45 percent of funding.[6]

Insurance premiums for individuals, which are determined separately by each insurer, account for another 45 percent of funding. Each insurer sets a premium that applies to all of its enrollees, regardless of their age or health status. However, through employer collectives, lower premiums may be offered.

A government grant for children and adolescents under age 18 provides the remaining 5 percent of financing.

Income taxes and government grants are collected in a central health insurance fund and redistributed among insurers in accordance with a risk-adjusted capitation formula that considers age, gender, labor force status, region, and health risk (based mostly on past drug and hospital utilization).

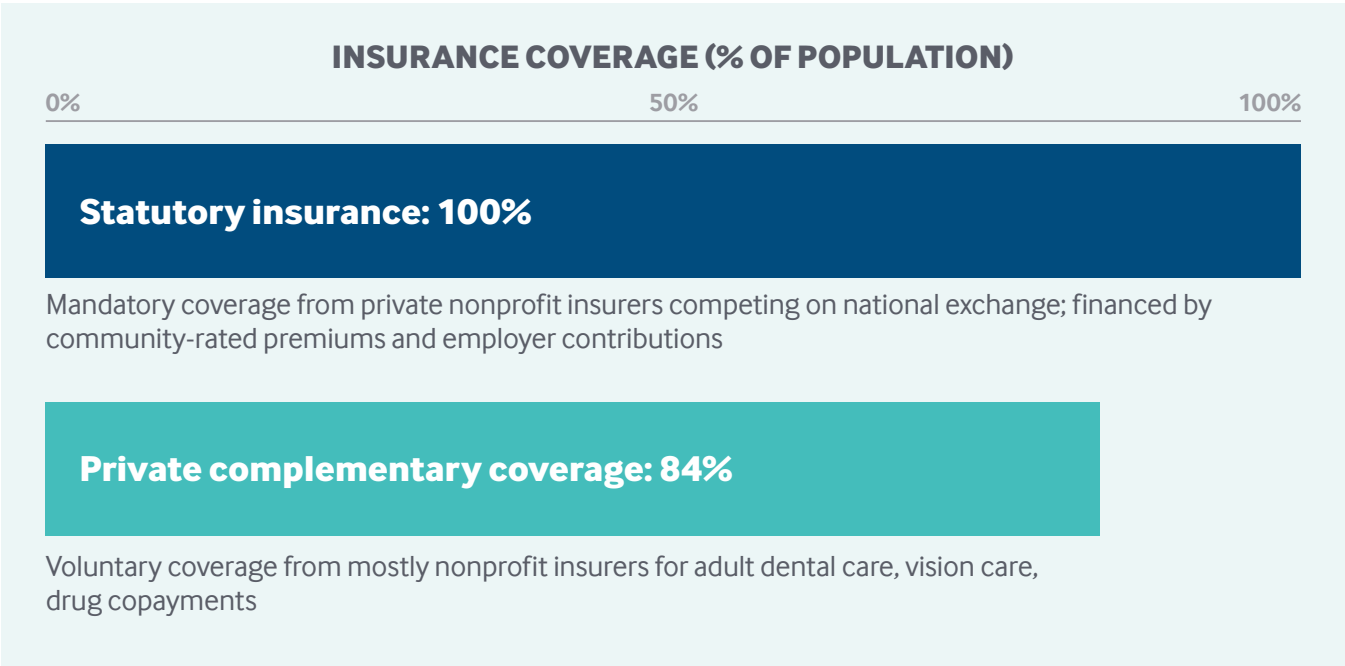
Private, statutory insurers are expected to engage in strategic purchasing, and contracted providers are expected to compete on both quality and cost. There were 10 statutory insurers in 2018, but the insurance market is dominated by the

four largest insurance conglomerates, which account for 90 percent of all enrollees. Currently, all insurers are mandated to operate as nonprofits.

Role of private health insurance: In addition to statutory coverage, most of the population (84%) purchases supplementary voluntary insurance covering a range of services not covered by statutory insurance, such as dental care, alternative medicine, physiotherapy, eyeglasses and lenses, and contraceptives, while also reducing copayments for nonformulary medicines.

Premiums for voluntary insurance are not regulated; insurers are allowed to screen applicants for risk factors. Nearly all of the insured purchase their voluntary benefits from the same (mostly nonprofit) insurer that provides their statutory health insurance.

People with voluntary coverage do not receive faster access to any type of care, nor do they have increased choice among specialists or hospitals. In 2016, voluntary insurance accounted for 7 percent of total health spending.[7]



Services covered: The government determines the statutory benefit package, and health insurers are legally required to provide the standard benefits. The mandatory benefit package includes:

- care provided by general practitioners (GPs)
- specialty care
- hospital care
- maternal care
- dental care up to age 18
- prescription drugs
- physiotherapy up to age 18
- home nursing care
- a limited number of health promotion programs, including those for smoking cessation and some weight management advice
- basic ambulatory mental health care for mild-to-moderate mental disorders
- specialized outpatient and inpatient mental care for complicated and severe mental disorders.

Some treatments, such as general physiotherapy, are only partially covered for some people with specific chronic conditions. Some elective procedures are excluded, such as cosmetic plastic surgery without a medical indication, dental care after age 18, and vision care without medical indication. A range of medical devices are covered, including hearing aids and orthopedic shoes, but wheelchairs and other walking aids are excluded.

Prevention and social supports are not covered by statutory health insurance but are financed through general taxation. The Public Health Act describes municipal responsibilities for national prevention programs, vaccinations, and infectious disease management. Municipalities can install additional prevention programs, such as healthy living and obesity reduction programs, but the provision of such services can vary widely from one municipality to another.

Long-term care is financed separately from statutory health insurance (see the long-term care section below).

Cost-sharing and out-of-pocket spending: In the statutory health insurance system, the main form of cost-sharing is a mandatory deductible, which was EUR 385 (USD 493) in 2019. In addition, consumers may pay a voluntary deductible of EUR 500 (USD 641), on top of the mandatory deductible, in exchange for a lower monthly premium. People pay the full cost of specialty and hospital care up to the deductible. The deductible covers a broad range of services, including hospital admissions, specialist services, and prescription drugs. GP care, preventive services (including most immunizations and breast cancer screenings), and children's health care are provided for free.

Copayments, coinsurance, or direct payments may be required even after the deductible is met for some selected services, such as nonformulary medications, physiotherapy for adults, medical transportation, and medical devices. In addition, patients with restricted network plans who visit providers that do not have contracts with the insurer may be required to pay up to 25 percent of the cost of that out-of-network care.

Safety nets: In addition to providing free primary and pediatric care, the government offers means-tested subsidies (health care allowances) to help cover insurance premiums for low-income people. As of 2019, singles must have annual incomes under EUR 29,500 (USD 37,805), and households must have incomes under EUR 38,000 (USD 48,698).[8]

More than 5 million people (approximately 30% of the population) receive these allowances,[9] which are set on a sliding, income-based scale, up to a maximum of EUR 99 (USD 127) per month for singles and EUR 192 (USD 246) per month for households.[10]

TYPICAL PATIENT COPAYMENTS AND SAFETY NETS

SERVICE	FEES PER ENCOUNTER/ SERVICE	MAXIMUM OUT-OF-POCKET COSTS	SAFETY NET
Primary care visit	None	Annual mandatory deductible of EUR 385 (USD 493) Voluntary additional deductible of EUR 500 (USD 641), applying to all costs under Health Insurance Act	• Children up to age 18 exempt from all medical cost-sharing, including dental • Low-income households given monthly health care allowances of EUR 2–192 (USD 3–246) to cover premiums
Specialist consultation	Full cost up to annual deductible		
Hospitalization (per day or visit)	Full cost up to annual deductible		
Prescription drugs (outpatient)	Full cost up to annual deductible Additional copayments apply for nonpreferred drugs, reference-priced drugs, and drugs with therapeutic substitute in formulary		

How is the delivery system organized and how are providers paid?

Physician education and workforce: The number of medical doctors is regulated through caps on the number of medical students, at both a national and a university level. Medical schools are located in private, nonprofit university medical centers. Medical students pay a yearly tuition fee of approximately EUR 2,100 (USD 2,691). The Capacity Body (*Capaciteitsorgaan*) advises the Ministry of Health on all specialized postgraduate training programs for medical specialists to ensure that supply matches demand.

There are no national initiatives to ensure an adequate supply of medical providers in rural or remote areas. In rural areas, GPs may assume the role of pharmacists.[11]

Primary care: In 2017, there were 13,364 registered primary care doctors (GPs) and 23,236 medical specialists.[12,13] Eighty-two percent of these physicians worked in small practices of two to seven physicians in 2016; 18 percent worked in solo practices.[14]

Most GPs work independently or in a self-employed partnership; one-third are employed by or have a short-term contract with a practice owned by another GP.[15]

The GP is the central figure in Dutch primary care. The typical practice size is approximately 2,200 patients per full-time working GP. Although registration with a GP is not formally required, most citizens (over 95%) are registered with one they have chosen, and patients can switch GPs as often as they like. GPs have a gatekeeping function; referrals are required for both hospital and specialist care.[16]

Many GP practices employ salaried nurses and primary care psychologists. Reimbursement for primary nursing care is received by the GP, so any productivity gains that result from substituting a nurse for a doctor accrue to the GP.

Chronic care management is coordinated through care groups, which are mostly GP networks. Care groups are legal entities that assume clinical and financial responsibility for enrolled chronic disease patients. The groups purchase services from multiple providers. To incentivize care coordination, bundled payments are provided for certain chronic diseases, such as diabetes, cardiovascular conditions, and chronic obstructive pulmonary disease (COPD).

In 2015, the government introduced a new GP funding model[17] comprising three segments:

- Segment 1 (approximately 75% of GP spending) funds core primary care services and consists of a capitation fee per registered patient, consultation fees for GPs (including phone consultations), and consultation fees for ambulatory mental health care at the GP practice. The Dutch Health Care Authority (*Nederlandse Zorgautoriteit*) determines national provider fees for this segment.
- Segment 2 (approximately 15% of GP spending) consists of funding for programmatic multidisciplinary care for diabetes, asthma, and COPD, as well as for cardiovascular risk management. Prices are negotiated with insurers.
- Segment 3 (approximately 10% of GP spending) provides GPs and insurers with the opportunity to negotiate additional contracts that encourage innovation and tie payment to performance.

Primary care providers are not allowed to bill patients above the fee schedule.

In 2018, self-employed GPs earned an average gross annual income of EUR 135,000 (USD 173,004), excluding after-hours care. In comparison, in 2016, maximum gross annual incomes of specialists were estimated at EUR 160,000 (USD 205,042) for salaried specialists, and EUR 211,000 (USD 270,399) for independent specialists.[18] The ratio of specialists to GPs was 1.7:1 in 2017.[19,20]

Outpatient specialist care: Nearly all specialists are hospital-based and either are part of a group practice (39%) or are on salary, mostly in university clinics (49%). The remaining 12 percent worked both on salary and independently in 2015.[21]

As of 2015, specialist fees are freely negotiable between independent specialist associations and hospitals. This so-called integral funding dramatically changed the relationship between medical specialists and hospitals. Hospitals now have to allocate their financial resources among their specialists.

After patients receive a referral for specialist treatment (in any hospital), they are free to choose their provider, but insurers may set different conditions, like cost-sharing, for choosing certain specialists.[22]

In 2016, there were 229 independent private and nonprofit outpatient treatment centers whose services were limited to same-day admissions for nonacute, elective care (such as orthopedic surgery) covered by statutory insurance.[23]

Administrative mechanisms for direct patient payments to providers: Regular GP visits are free of charge, being exempt from the deductible. Patients generally do not pay specialists directly. Instead, the annual deductible is paid to the insurer. The insured has the option of paying the deductible before or after receiving health care and may choose to pay all of the deductible at once or in installments. Copayments, such as those for drugs or transportation, have to be paid directly to the provider.

After-hours care: After-hours care is organized at the municipal level in "GP Posts," which are walk-in centers, typically run by a nearby hospital, that provide primary care between 5:00 p.m. and 8 a.m. Nearly all GPs work for a GP Post. They must provide at least 50 hours of after-hours care annually to maintain their registration as GPs.

Specially trained medical assistants answer the phone and perform triage; GPs decide whether patients need to be referred to a hospital. Doctors are compensated separately at hourly rates for after-hours care and house calls (on top of their regular income).

The GP Post sends information regarding a patient's visit electronically to the patient's regular GP. Since after-hours care is typically provided at hospitals, there is no national medical telephone hotline advising patients on their nearest after-hours locations.

Hospitals: In 2018, there were 71 hospital organizations, including eight university medical centers.[24] All hospitals are private entities, but profits may not be distributed to shareholders, making the hospital market virtually 100 percent nonprofit.

Hospital payment rates are determined mostly through negotiations between insurers and hospitals over prices, quality, and volumes. The great majority of payments take place through the case-based, diagnosis-treatment combination (DBC) system, which is similar to a diagnosis-related group approach. In 2012, the number of DBCs was reduced from 30,000 to 4,400 to reduce administrative complexity.

The rates for approximately 70 percent of DBCs can be negotiated by providers and insurers. The remaining 30 percent are set nationally by the Dutch Health Care Authority.

Since 2015, independent medical specialist groups have negotiated physician payments with hospitals. Diagnosis–treatment combinations cover both outpatient and inpatient care, as well as specialist costs, strengthening the integration of specialist care within the hospital organization.

A small part of hospital care is reimbursed through so-called add-ons. Add-ons are separate payments that have been developed for the reimbursement of expensive drugs and intensive care unit admissions. In addition, university medical centers receive special allowances for the adoption of new technologies.

Mental health care: Mental health care for mild-to-moderate mental disorders is provided by specially trained psychologists, nurses, and social caregivers in basic ambulatory care settings, such as GP offices. In cases of complicated and severe mental disorders, GPs will often refer patients for specialized mental health care.

Outpatient mental health care is generally covered as part of the basic statutory benefit package. In contrast, inpatient mental health care is covered as part of the Long-Term Care Act of 2015 (see next section). Hospitals provide acute mental health care.

E-health applications are used widely in mental health care. The government stimulates the use of e-health through various programs, including a EUR 90 million (USD 115 million) investment fund in 2019.[25]

Long-term care and social supports: In the Netherlands, long-term care and social support programs are separate from but complementary to the curative health system. Long-term care is financed through the Long-Term Care Act (*Wet langdurige zorg*) of 2015, a statutory social insurance scheme for long-term care and otherwise uninsurable medical risks and costs that cannot be reasonably borne by individuals. To fund long-term care insurance, taxpayers contributed 9.65 percent of their taxable income up to EUR 33,791 (USD 43,304) in 2017.[26]

Long-term care encompasses residential care, personal care, supervision, medical care, and nursing care, as well as medical aids and transport services. Patients in need of permanent supervision or who need assistance 24 hours a day to prevent escalation or serious harm are eligible for long-term care benefits. The Center for Needs Assessment (*Centrum Indicatiestelling Zorg*), a governmental agency, determines eligibility based on clinical need alone (no means-testing). In 2016, 314,220 people used long-term care.[27]

A total of EUR 20 billion (USD 26 billion) was spent on long-term care in 2017, making the Netherlands one of the highest long-term care spenders among countries in the Organisation for Economic Co-operation and Development.[28] To reduce spending, some long-term care responsibilities have been transferred to municipalities, with the goal of shifting care from institutional settings to community-based care.

Municipalities receive block grants from the government to cover long-term care expenses. Municipalities have very limited tax-raising abilities.

Municipalities are responsible for ensuring the provision of household services, medical aids, home modifications, services for informal caregivers, preventive mental health care, transport facilities, and other assistance. Municipalities have a great deal of freedom in how they organize long-term care services and in how they support caregivers. In 2017, 1,042,790 people used social support services funded by municipalities.[29]

Cost-sharing depends on annual income and wealth, age, and household size. For long-term care, an income- and wealth-related copayment up to a maximum of EUR 2,332 (USD 2,988) per month is required.[30] For municipal home care and social services, most municipalities require a small income-related copayment.

Long-term care is provided by private, nonprofit organizations. For home care, profits are allowed by law. Home care is provided increasingly by self-organizing nursing units, following the innovative business model of Buurtzorg, a 2007 startup that has increasingly penetrated the Netherlands' home care market.[31]

Most palliative care, including hospice care, is integrated into the health system and can be delivered by GPs, home care providers, nursing homes, specialists, and volunteers. Palliative care is financed through a number of sources, but mostly through the Long-Term Care Act.

Personal budgets are provided for patients to buy and organize their own long-term care. In 2016, about 14,200 personal budget holders received on average of almost EUR 20,000 (USD 25,630) annually.[32] Personal budgets can be spent on various care and welfare functions, including family caregivers and informal caregivers, although regulations have been tightened.

What are the major strategies to ensure quality of care?

Private, statutory insurers are expected to engage in strategic purchasing, and contracted providers are expected to compete on both quality and cost. At the system level, quality is ensured through legislation governing professional performance, quality in health care institutions, patient rights, and health technologies.

The Dutch Health Care Inspectorate is responsible for monitoring quality and safety. In 2014, the National Health Care Institute was established to further accelerate the process of quality improvement and evidence-based practice. As part of the National Health Care Institute, the National Quality Institute promotes quality measurement and transparency. Most quality assurance is carried out by providers, sometimes in close cooperation with patient and consumer organizations and insurers. There are ongoing experiments with disease management and integrated care programs for the chronically ill.

In the past few years, many parties have been working on quality registries. Most prominent among these are several cancer registries and surgical and orthopedic (implant) registries.

Mechanisms to ensure the quality of care provided by individual professionals include:

- a government-based national registry certifying completion, every five years, of compulsory continuous medical education
- regular on-site peer assessments by professional bodies
- professional clinical guidelines, indicators, and peer review.

The main methods used to ensure quality in hospitals, nursing homes, and other health care institutions include:

- voluntary accreditation and certification granted by independent organizations
- compulsory and voluntary performance assessments based on indicators
- national quality-improvement programs.

Furthermore, quality of care is supposed to be enhanced by selective contracting. For example, insurers should contract only with providers that meet minimum standards for volumes of procedures performed.

Patient experiences are tracked primarily through the Commonwealth Fund's regularly conducted international health policy surveys,[33] but are otherwise not systematically assessed. Although progress has been made, public reporting on quality of care and provider performance is still in its infancy in the Netherlands. Patients may report individual experiences with health care providers and institutions in any sector to the website Zorgkaartnederland.nl on a voluntary basis. Furthermore, several websites provide comparative information about institutions and providers (including hospitals and nursing homes), based primarily on quality indicators obtained from the National Quality Institute and the Dutch Healthcare Inspectorate.

What is being done to reduce disparities?

Every four years, variations in health accessibility are measured and published in the *Dutch Health Care Performance Reports* by the National Institute for Public Health and the Environment, focusing on socioeconomic differences such as ethnicity and education. Geographic or regional variation is not measured consistently.[34]

Socioeconomic health disparities are considerable in the Netherlands, with up to seven years' difference in life expectancy between the highest and lowest socioeconomic groups. Smoking is still a leading cause of death. Although health disparities are monitored by the National Institute for Public Health and the Environment (part of the Ministry of Health), the government does not have specific policies to overcome them. In 2013, the government decided to cover weight loss advice and smoking cessation programs in the statutory benefit package.[35]

What is being done to promote delivery system integration and care coordination?

A bundled-payment approach to integrated chronic care is applied nationwide for diabetes, COPD, and cardiovascular risk management (see "Primary care" above). Under this system, insurers pay a single fee to a principal contracting entity, known as the care group, to cover a full range of chronic disease services for a fixed period.

The bundled-payment approach supersedes traditional health care purchasing for the applicable condition and divides the market into two segments: one in which health insurers contract care from care groups, and another in which care groups contract services from individual providers, each with freely negotiable fees.[36]

Over the last years, a number of pilot studies across the Netherlands have been initiated to improve care integration and coordination, focusing primarily on health and lifestyle improvement, population management, and administrative simplification. For instance, the role of district nurses is currently being strengthened to better coordinate care and help reach vulnerable populations. These initiatives have had varying degrees of success.

What is the status of electronic health records?

Virtually all GPs have a degree of electronic information capacity. For example, they use electronic health records (EHRs) and can order prescriptions and receive lab results electronically. At present, all hospitals have an EHR.

Providers must allow patients access to their own files on request, but few hospitals have standard online access options for patients. Electronic records, for the most part, are not nationally standardized or interoperable between domains of care. In 2011, legislation to install a national EHR system failed in Congress. Since then, the integration of EHR systems among providers has been left to the field.

In 2011, hospitals, pharmacies, after-hours GP cooperatives, and organizations representing GPs set up the Union of Providers for Health Care Communication (*Vereniging van Zorgaanbieders voor Zorgcommunicatie*), responsible for the exchange of data across various platforms and settings via the National Switch Point (LSP).[37] Patients must approve their participation in this exchange, and have the right to withdraw. The LSP uses unique provider identification numbers and patient social security numbers under the oversight of the Central Healthcare Information and Occupation Access Point, a government agency. In practice, use of this system is limited.

Other initiatives have focused on improving data exchange. For example, *MedMij* is a private organization that develops data standards to ensure that portals, provider systems, and apps can be linked to exchange information securely.

How are costs contained?

The main approach to controlling costs relies on market forces while regulating competition and improving the efficiency of care. In addition, provider payment reforms, including a shift from a budget-oriented reimbursement system to a performance- and outcome-driven approach, have been implemented. In the wake of the 2008 global financial crisis, additional activities have been undertaken to contain costs. Since 2012, health care spending has declined from 10.9 percent to 10.5 percent of GDP.[38]

In 2011, an agreement signed by the Ministry of Health, all health care providers, and insurers set a voluntary ceiling for the annual growth of spending on hospital and mental health care. When overall costs exceed that limit, the government has the ability to control spending via generic budget cuts. The agreement included an extra 1 percent spending growth allowance for primary care practices in 2014 and 1.5 percent in 2015–2017, provided they demonstrated that their services were a substitute for hospital care. The agreement was renewed in 2018.[39]

The pharmaceutical sector is generally considered to have contributed significantly to the decrease in spending growth. Average prices for prescription drugs declined in 2014, although less than in previous years, with reimbursement caps for the lowest-price generic contributing to the decrease in average price. Reimbursement for expensive drugs has to be negotiated between hospitals and insurers. There is some concern, however, that this and other factors may limit access to expensive drugs in the near future.

Health technology assessment is gaining in importance, and is used mainly for decisions concerning the benefit package and the appropriate use of medical devices. The management of the basic benefit package also contributes to cost containment. Based on advice by the National Health Care Institute, the Ministry of Health has negotiated lower prices with manufacturers for a range of expensive drugs. The Dutch health minister has formulated an ambitious policy proposal aimed, in part, at limiting the pharmaceutical industry's power over drug pricing. During the Dutch presidency of the European Union in 2016, the topic was successfully put on the EU agenda, but the effectiveness of the proposed policies remains to be seen.

The annual deductible, which accounts for the majority of patient cost-sharing, has more than doubled between 2008 and 2018, from EUR 170 (USD 218) to EUR 385 (USD 493).[40] There are some worries that this increase has led to greater numbers of people abstaining from or postponing needed medical care.

Cost containment has been most severe in long-term care. Since 2013, people with lower care needs are no longer entitled to residential care. In addition, the devolution of services to the municipalities as a result of the 2015 Long-Term Care Act was accompanied by substantial cuts to the available budgets (by almost 10%, on average).

The Federation of University Medical Centers has recently started a program aimed at reducing lower-value services.[41] In addition, the Dutch Federation of Medical Specialists launched the "Dutch Choosing Wisely" campaign, which is also aimed at reducing lower-value services.[42]

What major innovations and reforms have recently been introduced?

Long-term care, including home care, was under separate legislation (the Exceptional Medical Expenses Act) until 2015. In 2015, the major reform placed residential long-term care under the newly created Long-Term Care Act, and transferred home care to the Health Insurance Act (medical home care and home nursing care) and Social Support Act (ancillary home services). The reform program's main goals were to guarantee fiscal sustainability and universal access in the future and to stimulate greater individual and social responsibility by expanding home-based care and social support as an alternative to institutional long-term care. To that end, the municipalities assumed responsibility for providing home care and social services based on the individual needs of the patient. The devolution of services to the municipalities as a result of the 2015 Long-Term Care Act was accompanied by substantial cuts to the available budgets (on average, almost 10%).

In 2015–2016, initial budget reductions were retracted, and future budget increases of EUR 2.1 billion (USD 2.7 billion) were set aside by the government to alleviate fiscal stress in nursing homes.[43]

In curative health care, market reform and regulated competition remain somewhat controversial. The government, determined to stimulate competition, has, among other measures, required insurers and providers to assume greater financial risk. The affordability and accessibility of expensive drugs have rapidly become prominent issues.[44]

As of the date of this report, the Health Insurance Act of 2006 has undergone two evaluations.[45] The latest evaluation pointed to an imbalance of power, with providers having an advantage over insurers.

The current government has emphasized providing the right care in the right place, focusing on care networks and cooperation and on strengthening primary care. In 2018, a landmark agreement was reached with more than 70 organizations on a set of preventive measures, including smoking cessation. Other recent policy initiatives are focused on reducing labor shortages in the health sector, addressing loneliness among the elderly, and promoting participation in sports.[46] The government is also developing policies to improve the long-term sustainability of health care financing.[47]

REFERENCES

1. For more details on the Bismarck health system, see M. Chung, "Health Care Reform: Learning from Other Major Health Care Systems," *Princeton Public Health Review,* 2017, https://pphr.princeton.edu/2017/12/02/ unhealthy-health-care-a-cursory-overview-of-major-health-care-systems/; accessed Sept. 9, 2019.
2. See A. C. Enthoven, "The History and Principles of Managed Competition," *Health Affairs* 12, suppl. 1 (1993): 24–48; and A. C. Enthoven and W. van de Ven, "Going Dutch — Managed-Competition Health Insurance in the Netherlands," *New England Journal of Medicine* 357, no. 24 (Dec. 13, 2007): 2421–23.
3. J. N. Struijs and C. A. Baan, "Integrating Care Through Bundled Payments — Lessons from the Netherlands," *New England Journal of Medicine,* March 17, 2011 364(11):990–91.
4. Organisation for Economic Co-operation and Development (OECD), OECD.Stat., https://stats.oecd.org/Index.aspx?DataSetCode=SNA_TABLE4, accessed May 8, 2018.
5. Please note that, throughout this profile, all figures in USD were converted from EUR at a rate of about 0.78 per USD, the purchasing power parity conversion rate for GDP in 2018 reported by the OECD (2020) for the Netherlands, DOI: https://stats.oecd.org/Index.aspx?DataSetCode=SNA_TABLE4; accessed June 2, 2020.
6. Belastingdienst (tax office), https://www.belastingdienst.nl/wps/wcm/connect/bldcontentnl/belastingdienst/prive/werk_en_inkomen/zorgverzekeringswet/veranderingen-bijdrage-zvw/percentages-zvw.
7. OECD health database.
8. Belastingdienst (tax office), https://www.belastingdienst.nl/wps/wcm/connect/bldcontentnl/belastingdienst/prive/toeslagen/zorgtoeslag/voorwaarden/inkomen/.
9. Zorgwijzer (care guide), https://www.zorgwijzer.nl/zorgverzekering-2018/zorgtoeslag-2018-stijgt-met-maximaal-120-euro.
10. Belastingdienst (tax office), https://www.belastingdienst.nl/wps/wcm/connect/bldcontentnl/belastingdienst/prive/toeslagen/zorgtoeslag/voorwaarden/inkomen/bedragen-zorgtoeslag-per-maand.
11. W. Schäfer et al., "The Netherlands: Health System Review," in *Health Systems in Transition* (European Observatory on Health Systems and Policies, 2010).
12. De Staat van Volksgezondheid en Zorg (The State of Health Care), https://www.staatvenz.nl/kerncijfers/huisartsen-aantal-werkzaam.
13. Prismant, https://capaciteitsorgaan.nl/app/uploads/2019/03/190301_Prismant_Werkzame-specialisten-2019.pdf.
14. L. F. J. van der Velden, A. Kasteleijn, and R. J. Kenens, "Cijfers uit de registratie van huisartsen," (2016).
15. De Staat van Volksgezondheid en Zorg (The State of Health Care), https://www.staatvenz.nl/kerncijfers/huisartsen-aantal-werkzaam.
16. van der Velden et al., "Cijfers uit de registratie van huisartsen."
17. LHV, https://www.lhv.nl/actueel/dossiers/financiering-huisartsenzorg.
18. LGL, "What Does a Medical Specialist Earn?," https://legalee.nl/wat-verdient-een-medisch-specialist/.
19. Prismant, https://capaciteitsorgaan.nl/app/uploads/2019/03/190301_Prismant_Werkzame-specialisten-2019.pdf.
20. De Staat van Volksgezondheid en Zorg (The State of Health Care), https://www.staatvenz.nl/kerncijfers/huisartsen-aantal-werkzaam.
21. Medisch (Medical) Contact, https://www.medischcontact.nl/nieuws/laatste-nieuws/artikel/aandeel-artsen-in-loondienst-groeit.htm.
22. W. Schäfer et al., "The Netherlands: Health System Review," in *Health Systems in Transition* (European Observatory on Health Systems and Policies, 2010).
23. Volksgezondheidenzorg (public health care), https://www.volksgezondheidenzorg.info/onderwerp/ziekenhuiszorg/cijfers-context/aanbod#node-aantal-instellingen-voor-medisch-specialistische-zorg.
24. Volksgezondheidenzorg (public health care), https://www.volksgezondheidenzorg.info/onderwerp/ziekenhuiszorg/cijfers-context/aanbod#node-aantal-instellingen-voor-medisch-specialistische-zorg.
25. Computable, "The Government Is Pumping 90 Million Euros into e-Health," Jan. 22, 2019, https://www.computable.nl/artikel/nieuws/zorg/6589751/250449/kabinet-pompt-90-miljoen-euro-in-e-health.html.
26. Belastingdienst (tax office), https://belastingdienst.nl/wps/wcm/connect/bldcontentnl/belastingdienst/prive/internationaal/uitkering_pensioen_en_lijfrente/pensioen_uit_duitsland/premie_volksverzekeringen_en_bijdrage_zvw_betalen/hoe_wordt_de_premie_wlz_berekend.
27. Monitorlangdurigezorg (long-term care monitor), https://www.monitorlangdurigezorg.nl/kerncijfers/gebruik/gebruik-bijdrageplichtige-wlz-zorg.
28. OECD health database.
29. Monitorlangdurigezorg (long-term care monitor), https://www.monitorlangdurigezorg.nl/gebruik-wmo-maatwerkvoorzieningen.

30. CAK, https://www.hetcak.nl/regelingen/zorg-vanuit-de-wlz/berekening-van-de-eigen-bijdrage-wlz/lage-of-hoge-eigen-bijdrage.

31. B. H. Gray, D. O. Sarnak, and J. S. Burgers, Home Care by Self-Governing Nursing Teams: The Netherlands' Buurtzorg Model (Commonwealth Fund, 2015), https://www.commonwealthfund.org/publications/case-study/2015/may/home-care-self-governing-nursing-teams-netherlands-buurtzorg-model.

32. Monitorlangdurigezorg (long-term care monitor).

33. For the latest survey of patients, see the 2017 Commonwealth Fund International Health Policy Survey of Older Adults (Nov. 15, 2017), https://www.commonwealthfund.org/publications/surveys/2017/nov/2017-commonwealth-fund-international-health-policy-survey-older.

34. G.P Westert et al., eds., *Dutch Health Care Performance Report 2010* (Rijksinstituut voor Volksgezondheid en Milieu RIVM, 2010).

35. Zorginstituut Nederland (Netherlands Healthcare Institute), https://www.zorginstituutnederland.nl/Verzekerde+zorg/g/gecombineerde-leefstijlinterventie-gli-zvw.

36. J. N. Struijs and C. A. Baan, "Integrating Care Through Bundled Payments — Lessons from the Netherlands," *New England Journal of Medicine* 364, no. 11 (March 17, 2011): 990–91.

37. VZVZ, https://www.vzvz.nl/.

38. OECD health database.

39. Rijksoverheid, "Outline of Specialist Medical Care Agreement for 2019–2022 Signed" (press release), April 16, 2018, https://www.rijksoverheid.nl/actueel/nieuws/2018/06/04/hoofdlijnenakkoord-medisch-specialistische-zorg-2019-2022-ondertekend.

40. Inderpender (blog), https://weblog.independer.nl/statistieken/eigen-risico-zorgverzekering-2008-2016-ontwikkeling/.

41. Medisch (Medical) Contact, https://www.medischcontact.nl/nieuws/laatste-nieuws/artikel/niet-doen-lijst-nuttig-maar-geen-nieuwe-kennis.htm.

42. Federatie Medisch Specialisten (Federation of Medical Specialists), "Five Years of 'Wise Choice,'" Sept. 15, 2017, https://www.demedischspecialist.nl/nieuws/vijf-jaar-%E2%80%98verstandig-kiezen%E2%80%99.

43. J. A. Maarse and P. P. Jeurissen, "The Policy and Politics of the 2015 Long-Term Care Reform in the Netherlands," *Health Policy* 120, no. 3 (March 2016): 241–45.

44. H. Maarse, P. P. Jeurissen, D. Ruwaard, "Results of the Market-Oriented Reform in the Netherlands: A Review," *Health Economics, Policy and Law* 11, no. 2 (April 2016): 161–78.

45. K. Plexus, *Evaluatie Zorgverzekeringswet*, final report (Sept. 2014); W. van de Ven et al., *Evaluation of Health Insurance Act and Health Care Allowance Act* (Tranzo, 2009).

46. Rijksoverheid, *National Annual Report 2018*, https://www.rijksoverheid.nl/ministeries/ministerie-van-volksgezondheid-welzijn-en-sport/documenten/jaarverslagen/2019/05/15/volksgezondheid-welzijn-en-sport-2018.

47. Rijksoverheid, *National Budget 2020*, https://www.rijksoverheid.nl/ministeries/ministerie-van-volksgezondheid-welzijn-en-sport/documenten/begrotingen/2019/09/17/xvi-volksgezondheid-welzijn-en-sport-rijksbegroting-2020.

The New Zealand Health Care System

Robin Gauld
University of Otago, New Zealand

New Zealand has achieved universal health coverage through a mostly publicly funded, regionally administered delivery system. Services covered include inpatient, outpatient, mental health, and long-term care, as well as prescription drugs. General taxes finance most services. The national government sets an annual budget and benefit package. District health boards are charged with planning, purchasing, and providing health services at the local level. Patients owe copayments on some services and products, but no deductibles. Approximately one-third of the population has private insurance to help pay for noncovered services and copayments.

How does universal health coverage work?

Beginning with the 1938 Social Security Act, a consensus developed in New Zealand that government has a fundamental role in providing for the population's health care needs. Not long after that law's passage, the government achieved its goal of universal health coverage. No citizen can be denied treatment in public hospitals, and all citizens have insurance through government-funded, universally accessible health services. In practice, however, coverage varies by income, need, location, and type of service.

Role of government: The national government plays a central role in setting the health care policy agenda and service requirements and in determining the publicly funded annual health budget. The government dominates all aspects of health care as the primary funder and supplier of health care; it also sets regulations and monitors compliance.

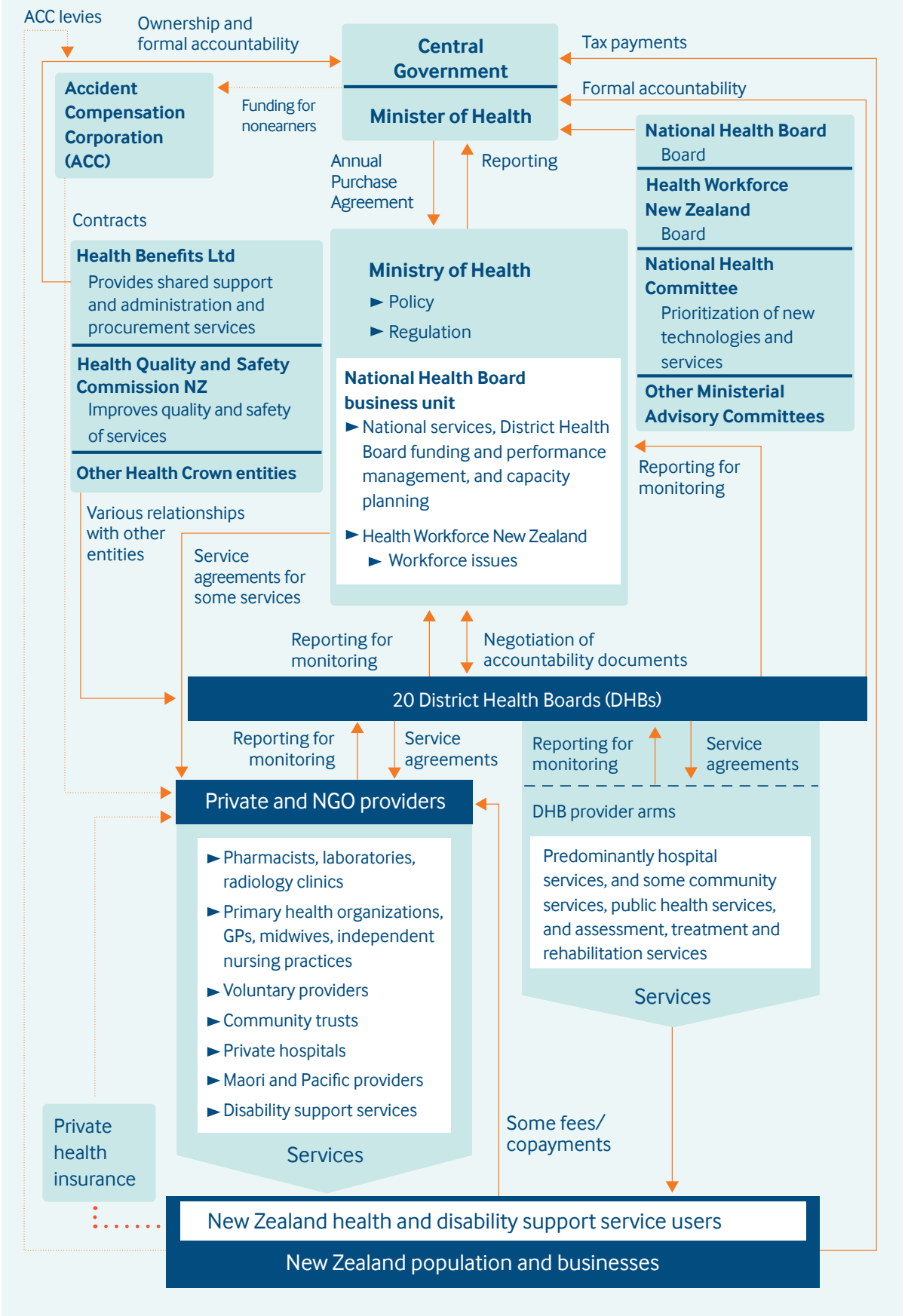
The government sets an annual overall budget and benefit package, based largely on political priorities and health needs. It also sets national requirements for publicly funded services, to be implemented by 20 geographically defined district health boards.

Responsibility for planning, purchasing, and providing health services, as well as disability support for those over age 65, lies with the district health boards, each of which comprises seven locally elected members and up to four members appointed by the minister of health.[1] These boards pursue government objectives, targets, and service requirements while operating government-owned hospitals and health centers, providing community services, and purchasing services from nongovernment and private providers.

Because New Zealand's health system is primarily public, government-funded and government-appointed entities dominate governance structures. Some operate at arm's length from the central government, such as the Health and Disability Commissioner, which champions consumers' rights in the health sector. Others are "crown agents," funded by government, with their own boards, and are required to follow government policy. Key national entities are:

- The Ministry of Health, which has overall responsibility for the health and disability system, acts as the minister of health's principal adviser on health policy, and maintains a role as funder, monitor, purchaser, and regulator of health and disability services.
- The Technology and Digital Services business unit, within the Ministry of Health, is responsible for implementing the government's Digital Health Strategy and other e-health initiatives.
- The Capital Investment Committee, which is a Ministry of Health subcommittee, advises on matters relating to capital investment in the public health sector, in line with the government's service plans.
- Health Workforce New Zealand leads and supports health and disability workforce training and development.
- NZ Health Partnerships, owned and supported by New Zealand's 20 district health boards, is tasked with helping the boards pursue bulk procurement of medical equipment, devices, and services.
- The Pharmaceutical Management Agency of New Zealand assesses the effectiveness of drugs, distributes prescribing guidelines, and determines the inclusion of drugs on the national formulary.

ORGANIZATION OF THE HEALTH SYSTEM IN NEW ZEALAND

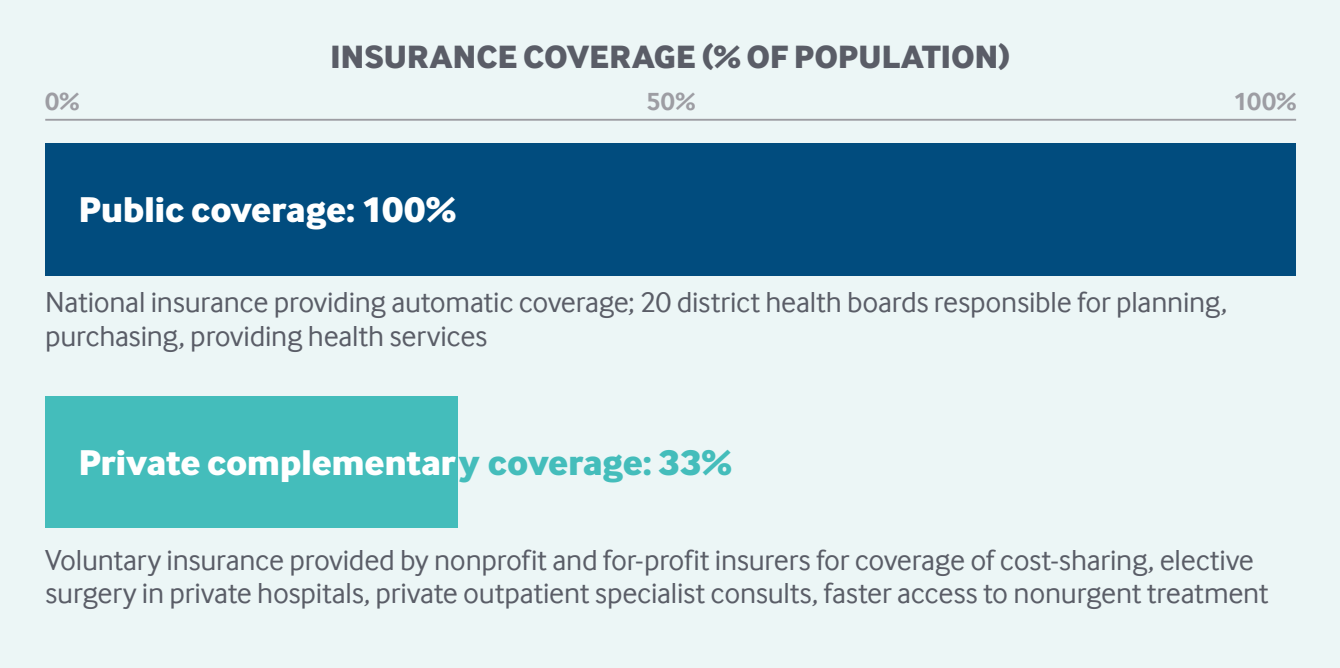


- The Health Quality and Safety Commission is working toward New Zealand's version of the Institute for Healthcare Improvement's Triple Aim: improved quality, safety, and experience of care; improved health and equity for all populations; and better value for public health system resources.
- The Health Promotion Agency develops and enables health-promoting policy, initiatives, and environments.
- The Health Research Council invests in a broad range of research on issues important to New Zealand.

Role of public health insurance: All permanent residents have access to a broad range of services that are largely publicly financed through allocations from pooled general taxes, which are collected at the national level. One exception is treatments related to accidents, which are covered by a no-fault accident compensation scheme. Nonresidents, including tourists and undocumented immigrants, are charged the full cost of services by public health care providers.

Total health spending was 9 percent of GDP in 2017.[2] Public spending accounted for 78.68 percent of total spending.

Role of private health insurance: Private health insurance is offered by a variety of organizations, from nonprofits to for-profit companies, and accounts for about 5 percent of total health expenditures. It is used mostly to cover cost-sharing requirements, elective surgery in private hospitals, and private outpatient specialist consultations. Private coverage also can ensure faster access to nonurgent treatment. About one-third of the population has some form of private insurance, and it is purchased predominantly by individuals.



Services covered: The publicly funded system covers the following services:

- preventive care
- inpatient and outpatient hospital services
- primary care via private providers, except for certain services, such as optometry, adult dental services, orthodontics, and physiotherapy
- maternity services
- physical therapy
- durable medical equipment
- inpatient and outpatient prescription drugs included on the national formulary
- mental health care

- dental care for schoolchildren
- long-term care
- home help
- hospice care
- disability support services.

Rationing of services and prioritization are applied largely to nonurgent services and vary by district health board.

Cost-sharing and out-of-pocket spending: Out-of-pocket payments, including both cost-sharing and other costs paid directly by private households, accounted for approximately 12.6 percent of total health expenditures in 2015. The largest portion went to outpatient services.[3]

There are no deductibles in the public sector, although copayments are required for GP services and many nursing services provided in GP clinics. Immunizations and cancer screening services are usually free. The average adult copayment for a GP consultation varies significantly, from NZD 15 to NZD 50 (USD 10 to USD 34).[4] In general, the government does not set limits on GP copayments, although the government has capped GP copayments at NZD 17.50 (USD 12.00) for one-third of New Zealanders residing in low-income areas.

For drugs prescribed by GPs and private specialists, copayments of NZD 5.00 (USD 3.40) are required for the first 20 prescriptions per family per year, after which there are no copayments.

Residents receive treatment free of charge in public hospitals, although there are some user charges, such as those for crutches and other aids supplied on discharge.

Safety nets: Primary care is mostly free for children ages 13 and under and is subsidized for the 98 percent of the population enrolled in networks of primary health organizations.

Patients who have had more than 12 GP visits in a year can apply for a high-use health card, which reduces the amount they owe in copayments. Low-income people can also lower their copayments by seeking a community services card.

TYPICAL PATIENT COPAYMENTS AND SAFETY NETS

SERVICE	FEES PER ENCOUNTER/SERVICE	MAXIMUM OUT-OF-POCKET COSTS PER YEAR (SAFETY NET)
Primary care visit	NZD 15–50 (USD 10–34) for adults under age 65	No copayments for children and youth under age 14 Reduced copayments of NZD 10–25 (USD 7–17) for: • High users (patients with >12 GP visits/year) who apply for high-use health card • Low-income adults who apply for community service card • Adults age 65 and older • New Zealanders in designated low-income areas
Specialist consultation	**Public hospitals:** None for outpatient consultations **Private practitioners:** Patients pay full cost; charges vary and are set by individual specialists	**Public hospitals:** N/A **Private hospitals:** None
Hospitalization (per day or visit) including pharmaceuticals	**Public hospitals:** None **Private hospitals:** Patients pay full cost; charges vary and are set by individual hospitals	**Public hospitals:** N/A **Private hospitals:** None
Prescription drugs (outpatient)	Drugs on national formulary: NZD 5.00 (USD 3.40) copayment Drugs not on formulary: full cost to patient (varies)	Cap on formulary drugs: after 20 prescriptions per family per year, no further copayments

How is the delivery system organized and how are providers paid?

Physician education and workforce: Practicing physicians must be registered with the Medical Council of New Zealand. There is no limit to the number of registered physicians. However, the two medical schools, Otago and Auckland, both public, have a limited student intake, and specialist colleges also limit training places. Medical school limits are determined largely by the government, which is the primary funder of medical education.

Students pay a portion of costs, presently around NZD 15,000 (USD 10,100) per year, for the six-year medical degree. Students from rural areas are eligible for fee subsidies and reimbursements if they return to practice rurally. Rural practice remains on the New Zealand immigration department's list of high-priority professions, meaning foreign doctors who opt to practice in rural areas of New Zealand are given preference when lodging immigration applications.

Primary care: GPs are usually independent and self-employed. Most belong to one of about 30 primary health organizations (PHOs), which are networks of providers.

About half of a GP's income comes from capitated, government-determined national subsidies, paid through the primary health organizations. The capitation rate is periodically adjusted in negotiations with GPs and primary health organizations.

Patient copayments, set by individual GPs, and payments from the Accident Compensation Corporation account for a GP's remaining compensation. In general, copayments are not regulated by any fee schedule; however, the government caps copayments for New Zealanders residing in low-income areas. A higher annual per-patient capitation rate is paid to GPs for these low-income patients. Primary health organizations receive additional per-capita funding to improve access (especially for low-income and vulnerable populations) and to aid in promoting health, coordinating care, and providing additional services for people with chronic conditions. In some cases, this support has led to the development of multidisciplinary care teams that may include specialists, such as nutritionists or podiatrists.

Primary health organizations also receive an incentive-type payment, up to 3 percent in additional funding, that can be shared with GPs who reach recommended targets for disease screening and follow-up, as well as for vaccinations.

GPs have an average income of NZD 180,000–200,000 (USD 122,000–135,000) per year. GPs who own their own clinics earn more.

The ratio of GPs to specialists is about 2:3. GPs act as gatekeepers to specialist care.

Patient registration is not mandatory, but GPs and primary health organizations must have a formally registered patient list to be eligible for government subsidies. Patients enroll with a GP of their choice; in smaller communities, choice is often limited.

An average of 3.48 GPs work together in each practice, assisted by practice nurses. Nurses are paid a salary by GPs and have a significant role in the management of long-term conditions like diabetes, incentivized by government funding for chronic care management.

Outpatient specialist care: Most specialists are employed by district health boards and receive a salary for working in a public hospital. The average public hospital specialist salary is around NZD 230,000 (USD 155,000).[5] Thereby, specialists in public hospitals make about 1.1 to 1.3 times the income of GPs.

Specialists are also able to work privately in their own clinics or treat patients in private hospitals, where they are paid on a fee-for-service basis. The impact of this dual practice on the public sector remains under-researched.[6]

Many specialists are based in multispecialty clinics but work independently, renting their office from the clinic.

Private specialists are concentrated in larger urban centers and set their own fees, which vary considerably; insurance companies have little, if any, control over those fees. Insurers pay private specialists only up to a maximum set amount, meaning that patients pay any difference.

In public hospitals, patients generally have limited choice of a specialist.

Administrative mechanisms for direct patient payments to providers: As noted above, GPs' income is derived from government subsidies, payments from the Accident Compensation Corporation, and copayments from patients.

Some patients enrolled in private insurance may be eligible to file a claim to cover copayments.

Patients pay the full cost of private specialist visits up front, unless the service is funded by the Accident Compensation Corporation or by private insurance. In the latter case, patients may seek reimbursement from their insurer, or there may be no direct patient charge if a specialist or private hospital holds a contract with the insurer.

After-hours care: GPs are required in their funding contracts to provide after-hours care or to arrange for its provision, and they receive a separate government subsidy for doing so, which is a higher per-patient rate than the general capitation rate.

In rural areas and small towns, GPs work on call; in some of these areas, a nurse practitioner with prescribing rights may provide first-contact care.

In cities, GPs tend to provide after-hours service on a roster at purpose-built, privately owned clinics in which they are shareholders. These facilities employ their own support staff, such as nurses, but patients usually see a GP in the first instance. Patient charges at these clinics are higher than those for services during the day (except for most children under age 13, who can get free after-hours GP services). Consequently, some patients will visit a hospital emergency department instead of after-hours clinics or avoid after-hours services altogether.

A patient's usual GP routinely receives information on after-hours encounters.

The public also has access to the 24-hour, seven-day-a-week phone-based "Healthline," staffed by nurses who provide advice in response to general health questions. The "Plunketline" provides a similar service for child and parenting problems.

Hospitals: New Zealand has a mix of public and private hospitals, but public hospitals constitute the majority, providing all emergency and intensive care.

Public hospitals receive a budget from their owners, the district health boards, based on historic utilization patterns, population needs projections, and government goals in areas such as elective surgery. The budget includes the costs of health professionals and other staff, all of whom are salaried. Within a public hospital, the budget tends to be allocated to the various inpatient services using a case-mix funding system, although some services are funded regardless of case mix.

A proportion of district health board funding for elective surgery is held by the Ministry of Health, and payments are made on delivery of surgery.

Following a pay-for-performance-type scheme, payments can be withheld if a district health board does not meet elective targets.

Certain areas of funding, such as mental health, are "ring-fenced"; the district health board must spend the money on a specified range of services.

Private-hospital patients with complications are often admitted to public hospitals, in which case the costs are absorbed by the public sector. Public-hospital services are provided largely by consultant specialists, specialist registrars, and house surgeons.

Mental health care: Most people get access to mental health care through community-based primary mental health services, often through their GP, who will then coordinate any referred services. However, there are also school-based health services and community services provided by nongovernmental agencies, which are all publicly funded.

District health boards deliver a range of mental health services (including secondary services), such as forensic, acute inpatient, and community-based services. They also provide support to primary care providers and fund nongovernment providers of community-based services. Private provision is limited.

Long-term care and social supports: District health board funding for long-term care is based on a patient needs assessment, age, and means-testing. Services are funded for those over age 65 and those "close in age and interest" (e.g., people with early-onset dementia or a severe age-related physical disability).

Eligible individuals receive comprehensive services, including medical care and home care. Respite care is available for informal or family-member caregivers and, in some circumstances, ongoing financial support is provided. Residential facilities, mostly private, provide long-term care. District health boards also provide hospital- and community-based palliative care. Around 33 percent of people over age 65 who receive support live in some form of aged residential care, with the remainder receiving home-based services.

Disability support services for those under age 65 are purchased directly by the Ministry of Health. Some disabled people opt for individualized funding, which enables disabled people to directly manage their disability supports.

End-of-life care in New Zealand is provided in a range of settings, including hospitals, a network of hospices, aged residential care, and the individual's home. District health boards either fully fund or contribute to these settings, according to population needs. Hospices also rely on fundraising for support.

Long-term care subsidies for older people are means-tested. Individuals with assets over a given national threshold pay the cost of their care up to a maximum contribution. Those with assets under the allowable threshold contribute all their income, except for a small personal allowance. District health funds cover the difference between a person's payments and the contract price for residential care. For people in their own homes, household management (e.g., cleaning), which accounts for less than one-third of home support funding, is income-tested. Personal care (e.g., showering) is provided free of charge. Home care services are all provided by nongovernment agencies. Some district health boards have experimented with providing personal budgets to home support recipients to spend on selected approved services, but mostly home care services are directly funded by district health funds.

What are the major strategies to ensure quality of care?

The Health and Disability Commissioner, which serves as a national patient advocate, investigates patients' complaints, reports directly to New Zealand's parliament, and has been active in promoting quality and patient safety. A culture of openness and transparency is supported by New Zealand's no-fault medical malpractice laws and accident compensation system.

District health boards are held formally accountable to the government for delivering efficient, high-quality care in hospitals, as measured by the achievement of targets across a range of indicators. These include six health targets, published quarterly, that aim to stimulate competition among district health boards. In addition, district performance on waiting times, access to primary care, and mental health outcomes is publicly disclosed. Also publicly reported are performance data on primary health organizations, including screening rates for chronic disease. Data on individual doctors' performance, however, are not routinely made available. As noted above, primary health organizations and GPs receive performance payments for achieving various targets. There are currently no publicly available data on nursing home or home care agency performance.

District health boards and individual GP clinics and networks run various chronic disease management programs. There are national registries for some diseases, including diabetes, cardiovascular disease, and cancer.

Since 2014, public hospitals have been required to conduct patient experience surveys of randomly selected patients. The Health Quality and Safety Commission publishes the findings.

Certification by the Ministry of Health is mandatory for hospitals, nursing homes, and assisted-living facilities. All practicing health professionals must be certified annually by the relevant registration authority (e.g., for doctors, the Medical Council of New Zealand), which has ongoing responsibility for ensuring professional standards and providing accreditation. Registration authorities supervise individual professionals where appropriate.

The Ministry of Health is also working on quality improvement in district health boards. Most boards have implemented clinical governance, which means that management and health professionals have assumed joint accountability for quality, patient safety, and financial performance.[7]

The Health Quality and Safety Commission aims to increase the focus on quality and to coordinate district health board activities, such as those aimed at improving the patient journey, managing medications more safely, reducing rates of health care–associated infection, and standardizing national incident reporting. Other initiatives include the following:

- The ongoing development of the *Atlas of Healthcare Variation*, an online tool aimed at highlighting variations in the provision and use of services by geographic area.
- A series of standard quality and safety indicators for district health boards based on routinely collected data.
- A program for consumer involvement in service design.
- Advice for district health boards on how to prepare annual "Quality Accounts," required since 2012–2013; these Quality Accounts report on how a district health board approaches quality improvement, including descriptions of key initiatives and their results.

- A national patient safety campaign launched in 2013, called "Open for Better Care," which is focused on reducing harm associated with falls, surgery, health care–associated infections, and medications. Since 2015, the campaign has collated routine data in an annual report aimed at providing a window on the quality of New Zealand health care.[8]

Lastly, New Zealand is a partner in the global Choosing Wisely initiative, aimed at reducing low-value and potentially harmful care.

What is being done to reduce disparities?

Health disparities are a concern in New Zealand. Maori and Pacific Island people have shorter life expectancies than other New Zealanders (by seven and five years, respectively) and experience greater difficulty in gaining access to health services. Reducing disparities is a policy priority. Data describing disparities are routinely collected and publicly reported at both the national and the district level.[9] A full range of data are collected and reported, including socioeconomic status, ethnicity, and proximity to services.

The post-2008 government has focused on specific initiatives such as "Whānau Ora," a policy designed to integrate health and social services. The aim has been to develop coordinated, multiagency approaches to service provision and to foster joint responsibility for outcomes. The government now requires district health boards to report on Māori health plans in their statutory reporting, and to consult with Māori on their annual plans.

What is being done to promote delivery system integration and care coordination?

District-level alliances (partnerships between district health boards and primary health organizations) are driving stronger health system integration, although performance varies across regions. The alliances have multiple cross-sector members including, but not limited to, primary care, pharmacies, ambulance services, district nursing, allied health, local government, and Maori providers. District alliances are developing services based on locality-specific needs. Some alliances have begun to form partnerships with local social agencies.[10]

The primary care sector is exploring how to best improve and enhance primary care to meet future demand. The "health care home" model is being implemented in several districts, with support and resourcing shared between district health boards and primary health organizations.

While district health boards are held accountable for driving integration through their annual plans, variability still exists. There is an ongoing effort to drive improvement by other means, including new funding models and contracting for outcomes. For instance, four system-level performance measures were implemented in 2016. The success of these measures is dependent on the contributions of individual providers or organizations.

What is the status of electronic health records?

The ability to access and share accurate clinical information is central to the New Zealand Health Strategy, which provides high-level direction for the country's health system.[11]

In 2015, the Ministry of Health announced, and has responsibility for, the Digital Health Work Programme 2020. The program aims to ensure appropriate access to health and wellness information facilitated by a single electronic health record. The electronic record will collect and present existing core health information in a single view, accessible by consumers and clinicians. Data will also be able to be shared with social-sector professionals.

Current levels of interoperability between health information systems are limited. However, the structured electronic transfer of information is increasing. Primary care is most advanced. Across the country, primary care providers can transfer patients' records securely between practices, send electronic referrals, and receive electronic hospital discharge summaries. In one of New Zealand's four regions, providers in community, hospital, and specialist settings can also access a shared view of clinical information. The other three regions are working on enabling information-sharing in these settings. Implementation of electronic prescribing is under way in primary care and in hospitals. The use of telehealth to deliver services remotely is also increasing.

A recent survey found that 509 of 992 general practices have implemented provider portals, giving after-hours facilities and some hospital emergency departments access to primary care information.[12] The Health Information Standards Organisation promotes the development and use of standards to ensure interoperability between systems, and a national standard for clinical terminology (the Systematized Nomenclature of Medicine — Clinical Terms) has been endorsed. Every person who uses health and disability support services has a unique national health number, facilitating the process of building interoperable systems.

Over half of primary care practices have implemented a patient access portal, and approximately 473,000 patients have registered. The portal gives patients access to their medical records and test results and allows them to book appointments with GPs, order prescription refills, and email a GP. The portal supports the New Zealand Health Strategy's goals of moving services closer to home and enabling health care consumers to actively manage their own health and engage more conveniently with the health system.

How are costs contained?

The financial sustainability of publicly funded health care is a top government priority. To support this goal, government has implemented a range of measures, including four-year planning within district health boards to align expenditures with priorities and improve regional collaboration to drive efficiencies. All new proposals must demonstrate their fit with the four-year plan and the strategic direction of the health sector.

Cost control in district health boards is closely monitored by the Ministry of Health. In the early 2000s, the adoption of new service delivery models and other efforts to improve efficiencies helped to decrease district health board deficits. However, budgets have been under constant pressure: a growing population characterized by increasing numbers of older and higher-acuity patients has led to rising deficits since 2015. Because public hospitals are essentially free of charge and funding allocations are fixed, there is no mechanism to shift increasing costs to patients or generate additional income.

The Pharmaceutical Management Agency, which is New Zealand's centralized drug purchasing entity, considers cost and savings as one criterion for including a drug on the national formulary. (Other factors are health benefit, need, and suitability.) The agency also uses mechanisms such as reference pricing to set prices for publicly subsidized drugs dispensed through community pharmacies and hospitals.[13] When patients prefer an unsubsidized drug, they must pay the full cost. Such strategies have helped drive down pharmaceutical costs and kept New Zealand's drug expenditures per capita among the lowest in the Organisation for Economic Co-operation and Development (OECD).[14]

What major innovations and reforms have recently been introduced?

The updated New Zealand Health Strategy, launched in 2016, consists of two parts: the Future Direction[15] and the Roadmap of Actions 2016.[16] The former lays out some of the challenges and opportunities the health system faces and describes the desired future, including the underpinning culture and values. In addition, it identifies five strategic themes for driving change:

- improving patient literacy and empowerment
- emphasizing prevention, early intervention, and community care
- improving system performance
- delivering integrated and collaborative health care delivery
- pursuing technological innovation.

The Roadmap of Actions 2016 identifies 27 action areas to implement by 2021. These actions, organized under the five themes listed above, will ultimately contribute to the stated goal that "all New Zealanders live well, stay well, get well, in a system that is people-powered, provides services closer to home, is designed for value and high performance, and works as one team."[17]

The 2017 election produced a new coalition government, introducing some new priorities. These include the following:

- a renewed focus on reducing inequalities
- reducing care access barriers and unmet needs
- improving primary care
- the launch of an inquiry into mental health and addictions.

The new government has also pledged an additional NZD 8.0 billion (USD 5.4 billion) in health funding over the next four years. In May 2018, the new government announced a wide-ranging review of the health system. Recommendations on how to improve the system's structure are due by early 2020. Particular attention is being given to primary and community care and the capacity to deliver on equity-related goals.

The author would like to acknowledge the New Zealand Ministry of Health for its comments and for providing updated information for this profile.

REFERENCES

1. The government replaced the governing board in one DHB with an appointed commissioner in mid-2015 owing to ongoing concerns about its financial situation.
2. Organisation for Economic Co-operation and Development, *OECD Health Statistics, 2017*, http://www.oecd.org/els/health-systems/health-data.htm.
3. OECD, *OECD Health Statistics, 2017*.
4. Please note that, throughout this profile, all figures in U.S. dollars (USD) were converted from New Zealand dollars (NZD) at a rate of about NZD 1.48 per USD, the purchasing power parity conversion rate for GDP in 2017 reported by OECD (2018) for New Zealand. Organisation for Economic Co-operation and Development, OECD.Stat. (2018), https://stats.oecd.org/Index.aspx?DataSetCode=SNA_TABLE4; accessed April 28, 2018.
5. Medical Assurance Society, *Healthy Practice: GP Locum/Associate Remuneration Report* (Medical Assurance Society, 2015).
6. R. Gauld, "Questions About New Zealand's Health System in 2013, Its 75th Anniversary Year," *New Zealand Medical Journal* 126, no. 1380 (Aug. 16, 2013): 1–7.
7. R. Gauld and S. Horsburgh, *Clinical Governance Assessment Project: Final Report on a National Health Professional Survey and Site Visits to 19 New Zealand DHBs* (Centre for Health Systems, University of Otago, 2012).
8. Health Quality and Safety Commission, *A Window on the Quality of New Zealand's Health Care 2017* (Health Quality and Safety Commission, 2017).
9. Ministry of Health, *Annual Report for the Year Ending 30 June 2017* (Ministry of Health, 2017).
10. R. Gauld, "The Theory and Practice of Integrative Health Care Governance: The Case of New Zealand's Alliances," *Journal of Integrated Care* 25, no. 1 (Feb. 2017): 61–72.
11. New Zealand Minister of Health, *New Zealand Health Strategy: Roadmap of Actions 2016* (April 2016), https://www.health.govt.nz/system/files/documents/publications/new-zealand-health-strategy-roadmapofactions-2016-apr16.pdf.
12. Ministry of Health, personal communication.
13. R. Gauld, "Ahead of Its Time? Reflecting on New Zealand's PHARMAC Following Its 20th Anniversary," *Pharmacoeconomics* 32, no. 10 (Oct. 2014): 937–42.
14. Organisation for Economic Co-operation and Development (OECD), OECD *Health Statistics*, 2019, http://www.oecd.org/els/health-systems/health-data.htm.
15. Minister of Health, *New Zealand Health Strategy: Future Direction* (Ministry of Health, 2016).
16. Minister of Health, *New Zealand Health Strategy: Roadmap of Actions 2016* (Ministry of Health, 2016).
17. Minister of Health, *New Zealand Health Strategy: Roadmap of Actions 2016*.

The Norwegian Health Care System

Ingrid Sperre Saunes, Senior Adviser
Norwegian Institute of Public Health

Norway has universal health coverage, funded primarily by general taxes and by payroll contributions shared by employers and employees. Enrollment is automatic. Services covered include primary, ambulatory, mental health, and hospital care, as well as select outpatient prescription drugs. Patients make copayments for some services and products, with caps on out-of-pocket contributions for most services. Municipalities organize primary health care, while the national government is responsible for specialty care, including hospital services, through the state-owned regional health authorities. About 10 percent of the population has private insurance, mainly to gain quicker access to and greater choice of private providers.

How does universal health coverage work?

Norway has universal health and social insurance coverage, known as the National Insurance Scheme (NIS), or *Folketrygd*. It is currently regulated by the 1997 National Insurance Act and the 1999 Patient Rights Act.

The establishment of universal coverage has a long history in Norway. Political and social movements began advocating for universal social and health care insurance around 1900. The Act of Health Insurance, covering employees as well as their families, came into force in 1909. Membership was mandatory for low-income employees; others could opt in. The coverage was twofold: health care and guaranteed basic income in case of income loss due to ill health. In 1956, the system was converted into a universal and mandatory right for all citizens.

Role of government: The national government is responsible for providing health care in accordance with the goal of equal access to care regardless of social or economic status or geographical location.[1] It is also responsible for regulating, funding, and overseeing the provision of care. However, responsibility for the administration of care is shared with the municipalities, through the municipal councils.

Primary, preventive, and nursing care are organized locally. In addition, the municipalities, often in cooperation with the counties, decide on public health initiatives or campaigns to promote healthy lifestyles and reduce social health disparities. All municipalities must statutorily guarantee access to publicly funded physiotherapy services.

Municipalities are also responsible for providing long-term care, which is not included in universal health insurance.

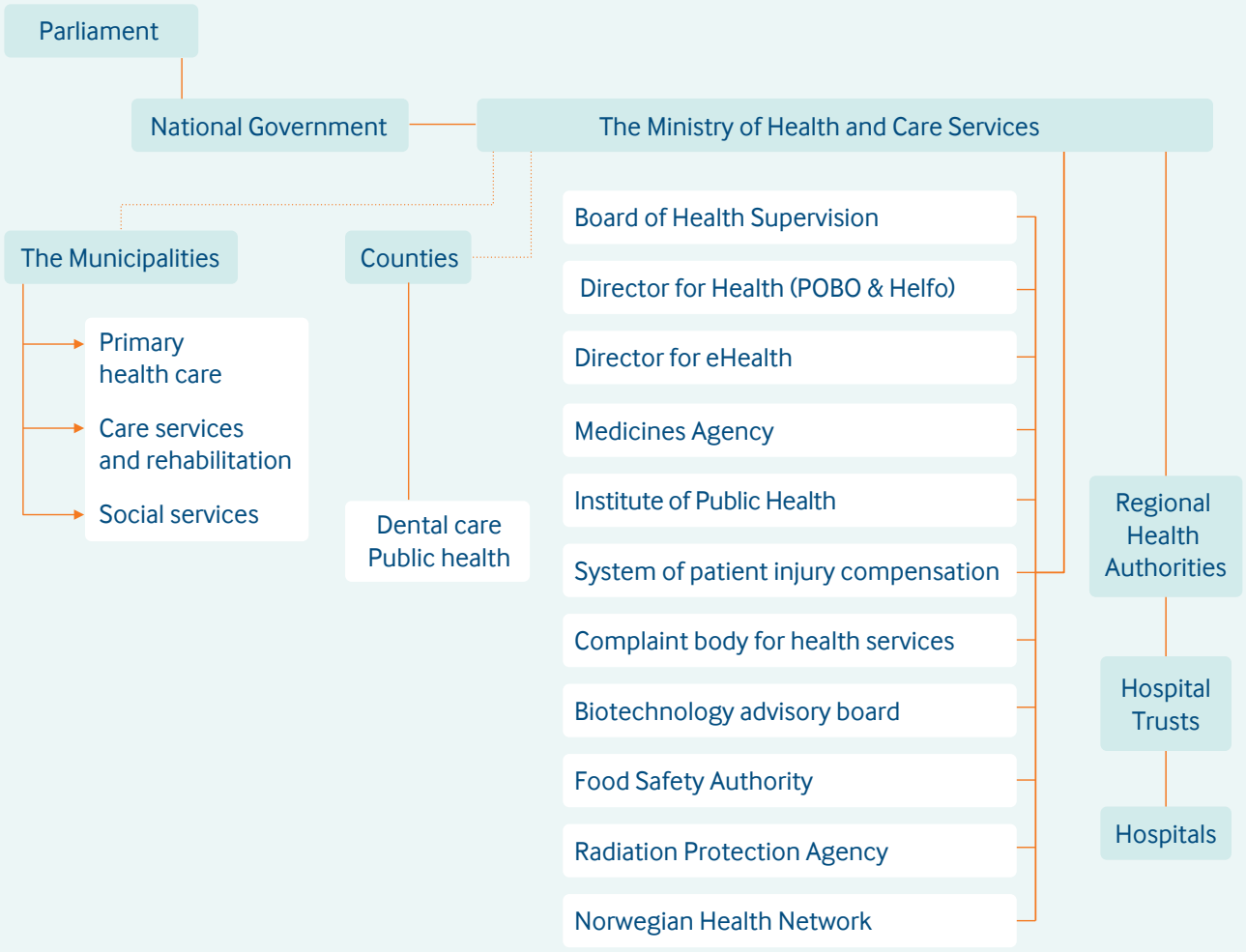
The national government is responsible for hospital and specialty care, which are handled at a local level through four Regional Health Authorities (RHAs) The RHAs have the overall responsibility for implementing national health policy through planning, organizing, managing, and coordinating activities with the hospital and pharmacy trusts in their region.

The following agencies have important roles in Norway's health care system.

- The National Board of Health Supervision is the central supervisory authority over health care.
- The Ministry of Health and Care Services translates political decisions into practice through legislation, economic measures, and documents that instruct underlying agencies.
- The Directorate of Health is responsible for implementing national health policy through targeted activities across services, sectors, and administrative levels, including the development of national clinical guidelines and licensing of health personnel.
- The Norwegian Health Economics Administration (*Helfo*) is responsible for making direct payments to providers and setting reimbursement levels.
- The Health and Social Services Ombudsmen in each county acts as a patient advocacy agency, assisting patients and clients to get the help or treatment they need.
- The eHealth Directorate is responsible for leading the development and application of health information technology and providing information about the performance of health services.

- The Norwegian Medicines Agency (*Statens legemiddelverk,* or NOMA) safeguards public and animal health by ensuring the efficacy, quality, and safety of medicines and by administering and enforcing medical device regulations.
- The Norwegian Institute of Public Health (NIPH) conducts research and surveillance related to the population's health, including disease prevalence and infection control.

ORGANIZATION OF THE HEALTH SYSTEM IN NORWAY



Notes: POBO = health and care services ombudsmen; Helfo = Health Economics Administration.

Role of public health insurance: Health expenditures represented 10.5 percent of GDP in 2016, or NOK 68,065 (USD 6,647) per person,[2] according to the Organisation for Economic Co-operation and Development (OECD). Public sources account for most health expenditures in Norway, at 85 percent.

Health coverage is automatic for all residents and has two main funding sources: the general tax system and household out-of-pocket payments. The split between public and private funding has been stable for the past 20 years. Public sources consist of transfers from national and municipal taxes, representing 76 percent, and contributions from state and payroll taxes, representing 11 percent. Taxation rates are set in the national budget. In 2018, the employee rate was 8.2 percent and the employer rate varied between 5.1 percent and 14.1 percent.[3]

Government funding for municipalities is generally not earmarked, and budgets are set locally by the municipality councils. The main sources of income for municipalities are taxes (55%) and block grants from the government (45%). Fifty-two percent of municipal budgets is devoted to health care and social services.

The NIS accounted for 35 percent of the national budget in 2015, or NOK 420 billion (USD 41.2 billion). The distribution of funding was 31 percent from enrollees, 41 percent from employers, and 28 percent from the state and others.[4]

In addition to health coverage, the NIS finances public retirement funds, sick leave payments, and additional health costs for some patient groups.

Through common agreements, European Union (EU) residents have the same access to health services in Norway as in their home country. Visitors from most other countries are charged in full. Undocumented adult immigrants have access only to emergency acute care, while undocumented children receive the same care as citizens.

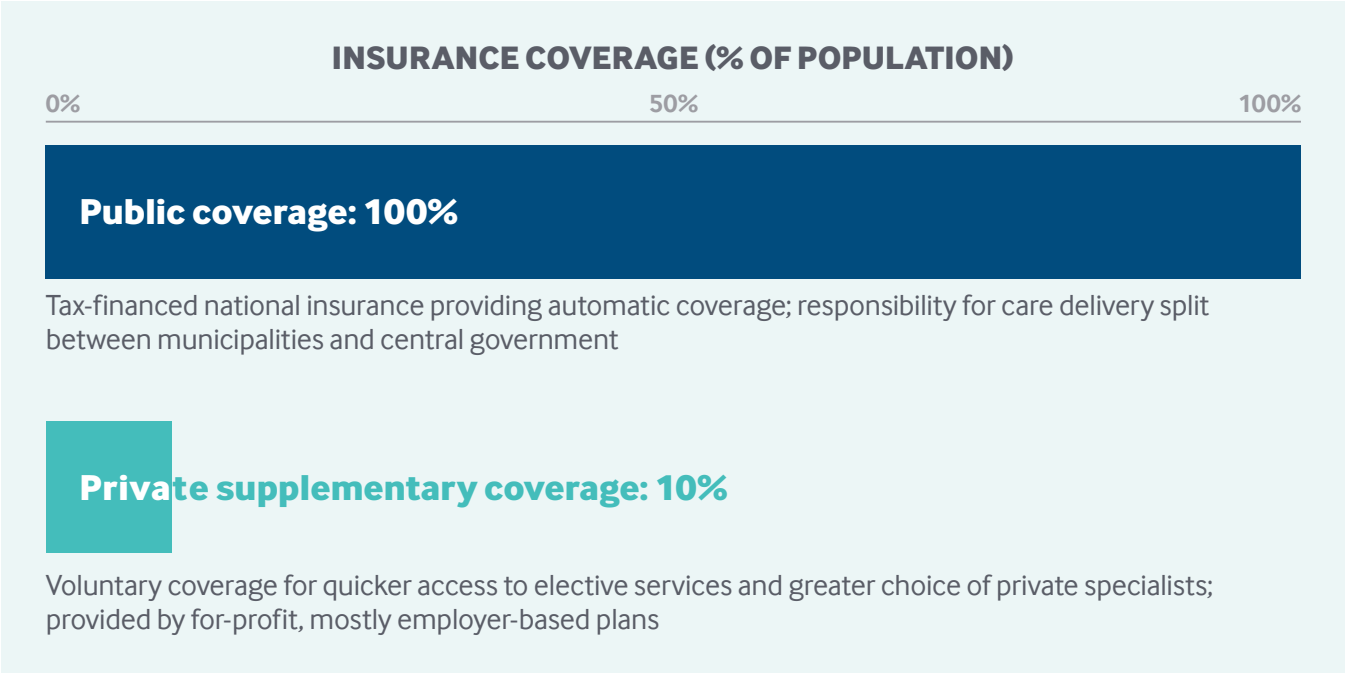
Role of private health insurance: For-profit insurers offer quicker access to outpatient services and greater choice of private providers. Private insurance policies cover fewer than 5 percent of elective services; it does not cover acute-care services. In 2016, about 10 percent of the population (500,000) had some private insurance. About 90 percent of these policies are paid for by an employer.[5] Revenue from private voluntary health insurance remains negligible.

Services covered: Parliament determines what is covered, although there is no defined benefit package except for new and costly treatments and technologies.

In practice, national health care covers the following:

- primary and ambulatory care
- hospital care
- mental health treatment
- rehabilitation
- outpatient prescription drugs, if included on the national formulary
- preventive services
- maternity care from a midwife at a Maternity and Child Health Care Centre or from a general practitioner (GP)
- home-based care and palliative care
- medical equipment on a needs basis
- dental care for children up to age 18, people with chronic diseases, nursing home residents, and other prioritized groups, as well as partial dental coverage for young adults ages 19 and 20 and dental braces for children.

Regular glasses and contact lenses are not covered unless the vision is very limited. Cosmetic surgery is not covered.



Again, long-term care is not a part of universal health insurance and is covered by the municipalities and patient copayments (see " Long-term care and social supports," below).

Cost-sharing and out-of-pocket spending: Out-of-pocket payments account for the biggest part of private revenues and made up approximately 14.3 percent of health expenditures in 2015. Patients owe copayments for most types of outpatient care (see table).

Safety nets: The major safety-net mechanisms are annual caps, set by Parliament, for out-of-pocket expenditures, above which all user fees are waived (see table).

Other safety net mechanisms include the following.

- Residents eligible for minimum retirement or disability pensions, which amount to about NOK 167,169 (USD 16,389) per year, receive free essential drugs and nursing care.
- Individuals with certain communicable diseases, including HIV/AIDS, and patients with work-related injuries receive free medical treatment for their conditions.
- Taxpayers with high health expenses, above NOK 9,180 (USD 900), due to permanent illness receive a tax deduction.
- Patients who regularly incur additional expenses because of permanent illness, injury, or disability may apply for an additional cash transfer known as basic benefits (NOK 678–3,383 [USD 66–332] per month).
- Individuals whose functional capacity is significantly and permanently (i.e., for more than two years) impaired owing to injury, bodily defect, or other health issues are entitled to receive financial support for assistive devices, such as wheelchairs, under NIS.

TYPICAL PATIENT COPAYMENTS AND SAFETY NETS

SERVICE	FEES PER ENCOUNTER/SERVICE	MAXIMUM OUT-OF-POCKET COSTS PER YEAR (SAFETY NET)
Primary care visit	NOK 155–334 (USD 19–41)	In 2017, the maximum out-of-pocket contribution for health care expenses, including tests, visits, and prescription drugs, was NOK 2,258 (USD 281); prescription drugs outside the national drug formulary, or blue list, do not apply toward these ceilings
Specialist consultation	Specialists contracted with National Insurance Scheme: NOK 245–370 (USD 30–46) Private specialists not contracted by NIS: full fee	A second ceiling, for services such as physiotherapy and certain dental services, is NOK 2,025 (USD 199)
Hospitalization (per day or visit) including pharmaceuticals	None	Exempt from copayments: • Children and youth under 16 for outpatient visits • Children and youth under 18 for mental health treatment • Recognized occupational injuries • Maternity care for pregnant women • Prevention and treatment of some transmittable diseases
Prescription drugs (outpatient)	For medicines and equipment on the national formulary: up to NOK 520 (USD 65) for a prescription up to three months	

How is the delivery system organized and how are providers paid?

Physician education and workforce: Medical education programs are offered at four public universities. The yearly educational capacity is set at 600 students, and the tuition fees are about NOK 1,200 (USD 118).

In 2015, 38 percent of physicians were trained outside Norway; however, nearly 50 percent of foreign-trained doctors are Norwegian-born. Many Norwegian students choose to study in EU countries and return to Norway to practice medicine.

Statistics Norway and the Directorate of Health have a shared responsibility for monitoring the health care workforce in Norway. Municipalities are primarily responsible for ensuring GP supply, but may apply to the Directorate of Health for extra funding to ensure an adequate supply of physicians. Funding may support the establishment of new practices and facilitate continuing medical education or other skill-building.

Primary care: The municipalities are responsible for providing primary care to their populations. Registered residents have the right to go to a GP of their choosing, assuming the physician has capacity to take on additional patients. The average patient panel size for a GP was 1,120 in 2016.[6]

Municipalities contract with individual GPs, who are mostly self-employed; only 6 percent are salaried municipal employees. Average annual earnings are NOK 804,000 (USD 78,824).[7] GP practices typically comprise one to six physicians and employ nurses, lab technicians, and secretaries. GP networks that enable sharing of resources are not common.

GPs function as gatekeepers. A GP referral is required for coverage of specialist treatment.

GPs receive 35 percent of their income from the municipalities, 35 percent on a fee-for-service basis from the central government through Helfo, and 30 percent from out-of-pocket payments from patients. GP financing is determined nationally through negotiations between the Norwegian Medical Association and the central government (represented by the Ministry of Health and Care Services, Ministry of Finance, and Directorate of Health), as well as representatives from the RHAs and the Association of Municipalities. The fee-for-service scheme also includes specific, relatively small fees available for: medication reconciliation, care coordination, and the development of care plans for patients with complex needs.

Outpatient specialist care: Public hospitals and self-employed specialists provide specialty care. There are 2.8 specialists in hospitals or ambulatory care for every practicing primary care physician.[8]

Hospital-based specialists are salaried; the average salary for hospital specialists is an estimated NOK 1,032,000 (USD 101,176). Private-practice specialists may or may not contract with an RHA to be reimbursed under the NIS. RHA-contracted specialists are paid annual lump sums, based on the type of practice and number of patients, which account for 35 percent of their reimbursement. These specialists also receive fee-for-service payments (35% of payment) and copayments (30% of payment).

The annual lump sum and the out-of-pocket fees are set by the central government, and the fee-for-service payment scheme is negotiated between the government and the Norwegian Medical Association. The Ministry of Health and Care Services sets the RHAs' budgets and issues an annual document instructing the RHAs on health care goals and priorities. Specialists with an RHA contract can charge patients only the nationally set out-of-pocket fee.

GPs and specialists who do not receive public financing are neither regulated nor subject to the out-of-pocket expenditure caps.

In principle, patients can choose their own specialists; in practice, however, specialist availability varies by geographic location. In densely populated areas, private multidisciplinary physician clinics have emerged in the last few years and seem to be increasing in number. Hospital-employed specialists cannot see private patients at the hospital, but may practice privately after hours.

Administrative mechanisms for direct patient payments to providers: Patients make copayments directly to care providers during their visits. The process is fully electronic and automated, alerting the patient and provider if the annual safety net ceiling has been reached.

After-hours care: The municipalities are responsible for arranging after-hours emergency primary care. Contracts with GPs include a requirement to provide after-hours emergency services on rotation. The municipalities pay the GPs a fee and provide offices, equipment, and assistance. Additional payments are provided through the national fee-for-service system and out-of-pocket payments from patients.

Some cities have walk-in centers where nurses triage patients and answer calls, with several physicians seeing patients throughout the day and night. In smaller municipalities, patients call an after-hours phone number and speak with a nurse,

who calls the GP if the patient needs to be seen either at home or at the center. In larger cities, there are a few private after-hours clinics where patients pay in full. A national medical helpline guides patients on where to seek assistance.

Information about after-hours visits is not consistently shared with patients' regular GPs.

Hospitals: Acute-care hospital services are the responsibility of the RHAs. Most hospital care is provided through Norway's 20 public hospital trusts, which are state-owned and -governed as publicly owned corporations. In 2017, the public hospital trusts had 11,000 beds and accounted for 94 percent of all hospital stays, with 760,000 overnight stays.

Not-for-profit private hospitals, which can have tender agreements with RHAs, accounted for 5 percent of overnight hospital stays in 2017. The for-profit hospital sector, which is small, covered 6.5 percent of daytime stays, mostly outpatient surgeries.[9] For-profit hospitals do not offer acute care or a full range of services. Some services in private hospitals may receive public funding, but the proportion varies, from almost none to 85 percent. Public funding of hospital care averages 85 percent.

Patients need a referral to acute-care services from a GP. However, in specific cases (e.g., accidents, suspected heart attack), patients can be taken directly to the hospital via ambulance. Patients are free to choose a hospital for elective services, but not for emergency care. All municipalities must provide intermediate-care units for patients who need pre- or post-hospital services for a limited time (<72 hours).

The RHAs are free to decide how hospitals are paid, and all four have chosen a diagnosis-related group (DRG) funding mechanism. Most services, including hospital administration, are included in DRG payments. One exception is somatic services, which are financed in part (50%) by block grants. Financing of hospital-initiated pharmaceutical care is the responsibility of the RHAs.

All hospital personnel are salaried, including doctors.

Mental health care: Mental health care is provided in municipalities by GPs, psychologists, psychiatric nurses, and social care workers. Many municipalities have multidisciplinary mental health outreach teams.

Psychological care for children under the age of 18 is fully covered. Preventive services for mental health are directed toward children and adolescents through the school system.

For specialized care, GPs may refer patients either to private psychologists and psychiatrists or to community mental health centers, which provide acute-care services (inpatient, outpatient, and day care) and rehabilitation services while also supervising and supporting primary care. These centers are dispersed throughout the country and often include psychiatric outreach teams.

More advanced specialized services are provided in the inpatient psychiatric wards of general hospitals or in mental health hospitals. Hospital inpatient treatment is provided free of charge, and outpatient services are subject to the same cost-sharing as other ambulatory visits. Psychiatric services in hospitals and community mental health centers are funded in full (100%) by block grants through the RHAs.

Private mental hospitals account for about 12 percent of mental health care, including services for eating disorders, nursing home care for older psychiatric patients, and some psychiatrist and psychologist outpatient practices, mostly contracted by the RHAs. The role of private treatment centers for addiction (mainly to drugs and alcohol) is prominent and funded mostly through contracts with RHAs. In general, treatment for drug dependence is delivered by specialized treatment units, while GPs are involved in opioid substitution treatment.[10]

Long-term care and social supports: The municipalities are responsible for providing long-term care and may contract with private providers.

The majority of long-term care recipients (70%) receive care at home, while 10 percent live in sheltered or assisted housing facilities, which are independent housing arrangements in between home and institutional care. About 20 percent of recipients live in an institution or a home with personnel available 24 hours a day.[11] Twenty-five percent of patients with extensive needs for assistance live in their own home.

Most nursing homes are owned and funded by municipalities; only 10 percent of all long-term care beds are in private nursing homes.[12] Very few patients pay individually for full-time private nursing home care.

Service eligibility is needs-based, determined by municipal criteria in cooperation with GPs. Home-based and institutional care for older or disabled people requires means-testing; cost-sharing is high, up to 85 percent of personal income.

End-of-life care for terminal patients is often provided in specific wards within dedicated nursing homes. There are few designated hospice facilities.

There is a system in place for informal caregivers to apply for financial support from the municipalities. In 2017, 10,099 caregivers were granted such support,[13] averaging around 10 hours per week. In addition, caregivers may be entitled to pension credits.

What are the major strategies to ensure quality of care?

The National Board of Health Supervision audits the different areas of the health system, both systematically across the nation and at individual organizations and professional practices. An alert system ensures that hospitals inform the board of serious adverse events, and the board may then decide to investigate particular incidents. The board can issue fines to institutions and warnings to health personnel and can revoke health care professionals' authorization to practice in cases of misconduct. Local audits are performed by the county governors.

Accountability systems are changing. In 2017, regulation for "internal control for health services" was replaced with regulation for "leadership and quality improvement in the health services." The change requires hospitals to undertake quality and safety improvement activities as well as to measure, and assume accountability for, performance.

National evidence-based guidelines, patient pathways, and bundles of care exist for several conditions, including stroke and cancer. Patient pathways are also being developed for mental health and addiction treatment. A five-year national safety program aims to improve patient safety, and a national reporting and learning system for adverse events in hospitals has been established.

Norway has 54 national clinical registries and 17 national health registries. Clinical registries, which are initiated by individuals, hospitals, or educational institutions, provide information for assessing the effects of treatments, including sometimes at the hospital ward level. They are used for quality assurance, research, and improvement activities. The national, statutory registries cover the entire population and, unlike the clinical registries, do not require patient consent (some are based on anonymous data). Since 2018, these registries and other health-related databases are the responsibility of the eHealth Directorate.

The Directorate of Health oversees a national program tracking health care quality indicators.[14] The program includes results from national patient experience surveys, as well as such quality indicators as survival rates, infection rates, and wait times. No information is gathered or disseminated regarding the results or quality of individual health care professionals' performance. Indicators for nursing homes are scarce and incomplete.

The Directorate of Health is also responsible for the licensing and authorizing of health care professionals. There is no system for reevaluation or reauthorization. The authority issues certificates of specialization to medical doctors in accordance with specific and transparent requirements. Only the specialization of GPs requires recertification.

RHAs, hospitals, municipal providers, and private practitioners are themselves responsible for ensuring the quality of their services. There is no requirement for accreditation or reaccreditation, although some hospitals or hospital departments are accredited.

A five-year developmental program for quality-based financing of RHAs, based on performance and improvement, ran from 2013 to 2017. This program measured 32 indicators, with patient experience constituting about 30 percent of metrics. Quality-based performance payments account for only about 0.5 percent of the RHAs' budgets. A 2015 evaluation did not identify any disadvantages of this quality-based financing scheme, but did identify several areas for improvement.[15] In 2016, the government decided to continue with quality-based financing at the current level.

The NIPH uses the Norwegian Prescription Database to produce annual reports on prescribing trends, giving national health authorities a statistical base for planning and monitoring drug prescriptions and use.

What is being done to reduce disparities?

The Patient and User Rights Act ensures that all inhabitants have equal access to quality health care.

A national 2013–2017 strategy, Equality and Equity in Health Care – Good Health for All, targeted social determinants of health. The emphasis has now shifted to individual health-related behaviors, rather than social determinants of health.[16]

The NIPH publishes data on social inequality and health. Information on disparities in outcomes and access to care is available through registries, and has been studied at the national and the regional level. Income disparities seem to be larger than educational disparities.[17] The largest differences in life expectancy (nine years) are found among districts in Oslo.

Recent demographic studies of mortality differences between immigrant and Norwegian populations reveal no disadvantage for immigrants. Disparities between the indigenous people of northern Europe, the Sami, and Norwegian populations are studied through the SAMINOR population-based study.[18] So far, there is little evidence for health disparities between the two.

What is being done to promote delivery system integration and care coordination?

The 2012 care coordination reform emphasized the municipalities' responsibility for 24-hour care and postdischarge care. In addition, the reform stipulated individual treatment plans for patients with chronic diseases. Hospitals and municipalities must establish formal agreements on the care of patients with complex needs.[19]

What is the status of electronic health records?

The eHealth Directorate is responsible for the national strategy for health information technology. The National Health Network, a state enterprise, provides efficient and secure electronic exchange of patient information between all relevant parties within the health and social services sector. It provides secure telecommunication for GPs, hospitals, nursing homes, pharmacists, dentists, and others.

All residents have a unique personal identification number, used in primary care and for hospital medical records. Virtually all GPs use electronic health records and transmit prescriptions electronically to pharmacies. Electronic communication systems are used for referrals, for communication with laboratories and radiology services, and for sick leave. Most GPs receive their patients' hospital discharge letters electronically. Some GP and specialist outpatient offices have electronic booking, while most hospitals do not.

There is also a secure website for accessing patients' core medical records. To gain access, health professionals must identify themselves, and their activity is logged.[20] All adult patients have online access to their core medical records, which include an overview of prescribed medicines. (A separate website for information about prescriptions only is also available.) Patients can request access to their complete medical record.

After-hours emergency care is organized within the same patient record network as primary care, and primary care providers can access information regarding emergency visits. All hospitals use electronic records.

How are costs contained?

The central government sets an overall health budget annually, and the municipalities and RHAs are responsible for maintaining their budgets. About 10 percent of the RHAs' operating expenses go to buy health services from private providers. Private providers are contracted through tender agreements, for which price of service is one of several criteria.

The RHAs have established a common procurement trust to negotiate volume-based discounts on supplies and drugs and to support environmentally friendly procurement practices. The trust has been especially effective in negotiating drug purchases.

The Norwegian Medicines Agency (NOMA) determines which medications to reimburse for outpatients. For new drugs, the agency determines whether a prescription drug should be covered by evaluating its cost-effectiveness in comparison with that of existing treatments. The agency decides the maximum price of drugs. NOMA's drug-pricing scheme encourages the use of generic drugs and uses cost-effectiveness as a reimbursement criterion for drugs.

Health technology assessments (HTAs) are used systematically to inform decision-making regarding the adoption of new technologies. The system has two levels: Decisions at the national level are made jointly by the four RHAs and based on HTAs, while decisions at the local hospital level are based on mini-HTAs performed in each hospital. The level of assessment depends on the type of technology and its intended area of use. Certain technologies, such as drugs, are always assessed at a national level. The System for the Introduction of New Health Technologies also addresses cost-effectiveness, as does the national eHealth strategy.

Measures taken to reduce low-value care include clinical guidelines and a surgical atlas that tracks variation in the frequency of some procedures (www.helseatlas.no). Patient out-of-pocket-payments are another measure to contain costs.

An OECD analysis of health spending in Norway suggested that high staffing levels and high salaries could partly explain the higher health care prices in Norway.[21] That perspective is also prominent in a report issued by the Directorate of Health.[22] However, Norway's wage negotiation model, which involves tripartite bargaining, has been successful in keeping costs at bay in recent years.[23]

What major innovations and reforms have recently been introduced?

In 2016, the government published a strategy for an "age-friendly society." The goal is active, healthy aging through participation in and contribution to society. The government is also rolling out several other strategies through 2022, including a youth mental health and well-being program, an antibiotic-resistance initiative, and a mental health program aimed at adults.

The National Health Data Program, launched in 2018, aims to make health data available for government agencies, researchers, managers, health professionals, and residents.[24]

In 2017, municipalities and GPs were invited to participate in a primary care pilot project, which promotes the use of interdisciplinary teams as a primary tool for change. GPs are now responsible for the teams, under the leadership of each municipality. The project began in spring 2018 and will run until April 2021. The pilot includes testing of two new payment models: a fee-based model, similar to the existing funding model for GPs, and an operating grant based on the number and demographic characteristics of a GP's patients. GPs also receive pay-for-performance bonuses and out-of-pocket payments.

In 2018, the government also introduced activity-based funding for specialized mental health services in combination with block grant financing.

In addition, a commission has been appointed to give advice on a new financing model for specialty care. The commission must consider the RHAs' responsibilities for providing specialist care for the population, conducting research, and educating health personnel. The commission's findings were set to be published in late 2019.

The government has started a process to decriminalize drug use as well as possession of minor quantities of drugs. The aim is to transfer the societal responsibility for handling minor drug offenses from the jurisdictional sector to the health care sector.

The author would like to acknowledge Anne Karin Lindahl, David Squires, and Ånen Ringard as contributing authors to earlier versions of this profile.

REFERENCES

1. Act of Patient Rights (1999).
2. Please note that, throughout this profile, all figures in U.S. dollars were converted from Norwegian krone at a rate of about NOK 10.2 per USD, the purchasing power parity conversion rate for GDP in 2017 reported by OECD (2018) for Norway. See https://stats.oecd.org/Index.aspx?DataSetCode=SNA_TABLE4; accessed May 17, 2018.
3. Norwegian Ministry of Finance, *Budget 2018,* https://www.statsbudsjettet.no/Upload/Statsbudsjett_2018/dokumenter/pdf/budget_2018.pdf; accessed April 5, 2018.
4. J. G. Mæland and A. Hatland, *Folketrygden: Store norske leksikon* (2017), https://snl.no/folketrygden; accessed April 5, 2018.
5. Finans Norge, *Markeds- og premiestatistikk* (2017), https://www.finansnorge.no/statistikk/skadeforsikring/statistikk-og-nokkeltall-for-skadeforsikring-2017/markeds--og-premiestatistikk/#Markedsandeler.
6. Helsedirektoratet, *Fastlegestatistikk 2016* (2017), https://helsedirektoratet.no/Documents/Finansieringsordninger/fastlegestatistikk/hovedtallsrapport%20fastlegeordningen%20landstall%202016_4.pdf; accessed April 8, 2018.
7. Statistics Norway, Statbank, https://www.ssb.no/statbank/table/11418/tableViewLayout1/?rxid=2811a876-7d7f-4164-90e6-2ce23a645f50&loadedQueryId=10001482&timeType=from&timeValue=2015; accessed April 9, 2018.
8. Norwegian Directorate of Health, Physicians in Municipal and Specialist Health Care (2017), https://helsedirektoratet.no/Lists/Publikasjoner/Attachments/1412/leger-i-kommune-ogspesialisthelsetjenesten-rapport-2017.pdf; accessed April 8, 2018.
9. https://helsedirektoratet.no/Lists/Publikasjoner/Attachments/1435/Somatikk_%C3%85rsrapport_2017.pdf; accessed April 9, 2018.
10. *Norway Country Drug Report 2017*, http://www.emcdda.europa.eu/countries/drug-reports/2017/norway_en.
11. *Nursing and Care Services 2016* (Aug. 14, 2017), https://www.ssb.no/helse/artikler-og-publikasjoner/kommunale-helse-og-omsorgstjenester-2016; accessed April 9, 2018.
12. Statistics Norway, *Care Services* (2017), https://www.ssb.no/en/helse/statistikker/pleie; accessed April 10, 2018.
13. Statistics Norway, *Recipients of Home Care* (2018), https://www.ssb.no/helse/statistikker/pleie/aar.
14. Norwegian eHealth Directorate, *Overview of Quality Indicators* (2017), https://helsenorge.no/kvalitetsindikatorer; accessed April 11, 2018.
15. Sirona Health Solutions, Evaluering av kvalitetsbasert finansiering (2015).
16. K. A. Van der Wel et al., "The Norwegian policy to reduce health inequalities: key challenges," *Nordic Welfare Research* 1, no. 1 (Nov. 2016): 19–29, https://www.researchgate.net/publication/312259879_The_Norwegian_policy_to_reduce_health_inequalities_key_challenges.
17. Statistics Norway, *Social Inequalities in Health Service Utilization* (2017), https://www.ssb.no/helse/artikler-og-publikasjoner/_attachment/312917?_ts=15cbf99fcd8; accessed April 11, 2018.
18. Arctic University of Norway, *The SAMINOR Study* (2012–2014), https://en.uit.no/forskning/forskningsgrupper/gruppe?p_document_id=591555.
19. Ministry of Health and Care Services, *The Coordination Reform: Proper Treatment at the Right Place and Right Time*, Report No. 47 (2009), https://www.regjeringen.no/contentassets/d4f0e16ad32e4bbd8d8ab5c21445a5dc/en-gb/pdfs/stm200820090047000en_pdfs.pdf.
20. I. S. Saunes, *Introduction of Core Medical Records* (European Observatory on Health Systems and Policies, May 2015), http://www.hspm.org/countries/norway08012014/countrypage.aspx; accessed April 10, 2018.
21. D. Morgan, M. Gmeinder, and J. Wilkens, *An OECD Analysis of Health Spending in Norway* (OECD Publishing, 2017), https://www.oecd-ilibrary.org/social-issues-migration-health/an-oecd-analysis-of-health-spending-in-norway_63302bbf-en; accessed April 11, 2018.
22. F. W. Eggen, R. Røtnes, and J. Steen, *Helse-Norge 2040 – Hvordan vil framtiden bli?* (Samfunnsøkonomisk analyse, Jan. 29, 2018), http://www.samfunnsokonomisk-analyse.no/nye-prosjekter/2018/1/19/helse-norge-2040-hvordan-vil-framtiden-bli; accessed April 10, 2018.
23. R. Nymoen,"Between Institutions and Global Forces: Norwegian Wage Formation Since Industrialisation," *Econometrics, MDPI* 5, no. 1 (Jan. 2017): 1–54.
24. Norwegian eHealth Directorate, *Helsedataprogrammet* (2017), https://ehelse.no/helsedataprogrammet; accessed April 10, 2018.

The Singaporean Health Care System

Lee Chien Earn
National University of Singapore

Singapore has achieved universal health coverage through a mixed financing system. The country's public statutory insurance system, MediShield Life, covers large bills arising from hospital care and certain outpatient treatments. Patients pay premiums, deductibles, co-insurance, and any costs above the claim limit. MediShield Life generally does not cover primary care or outpatient specialist care and prescription drugs. MediShield Life is complemented by government subsidies, as well as a compulsory medical savings account called MediSave, which can help residents pay for inpatient care and selected outpatient services. In addition, individuals can purchase supplemental private health insurance or get it through an employer. The national government is fully responsible for the health system.

How does universal health coverage work?

Singapore's health care financing system is underpinned by the belief that all stakeholders share responsibility for attaining sustainable universal health coverage. Singapore has a multipayer health care financing framework, where a single treatment episode might be covered by multiple schemes and payers, often overlapping. The system, known as the 3Ms, comprises the following programs:

- **MediShield Life**, a universal basic health care insurance, is mandatory for citizens and permanent residents and provides lifelong protection against large hospital bills and select costly outpatient treatments. It was launched in 2015 to replace MediShield, an opt-out catastrophic illness insurance scheme.
- **MediSave**, a national medical savings scheme, helps cover out-of-pocket payments. Personal and employer salary contributions (8%–10.5%, depending on age) to MediSave accounts are mandatory for all working citizens and permanent residents. These tax-exempt, interest-bearing (currently 4% to 5%) accounts can be used to pay for family members' health care expenses.[1]
- **MediFund** is the government's safety net for needy Singaporeans who cannot cover their out-of-pocket expenses, even with MediSave.

Role of government: The Ministry of Health's mission is to promote good health and reduce illness, ensure access to good and affordable health care, and pursue medical excellence. The Ministry of Health is responsible for regulating the public health system and the health care system overall.[2]

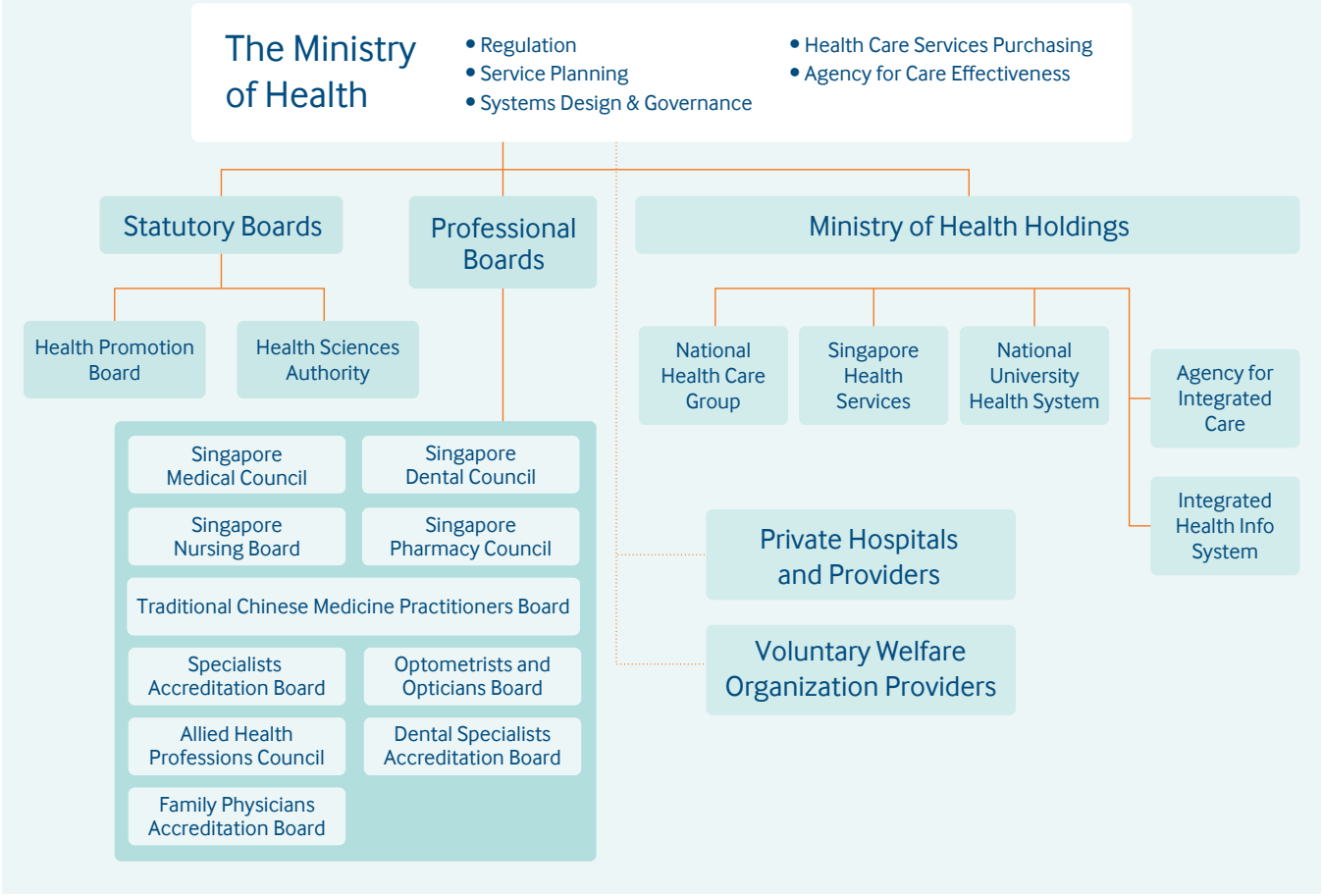
The government relies on competition and market forces to improve service and raise efficiency but intervenes directly when the market fails to keep health care costs down.[3] For example, the Ministry of Health performs workforce planning to determine the number of health care professionals required, coordinates the training capacity, and dictates land availability for hospital and other health care facility development.[4] The ministry also ensures that longer-term population needs are met through sustainable investment, especially in preventive and community-based care.[5]

The Ministry of Health has centralized certain functions to prevent fragmentation and to encourage economies of scale. National organizations with important functions include the following:

- MOH Holdings, the holding company for public health care institutions. It also handles infrastructure development and coordination of manpower and talent development for the national health system. Subsidiaries of MOH Holdings include:
  - Integrated Health Information Services, which integrates, delivers, and manages information technology systems across all public health care institutions.
  - The Agency for Integrated Care, which coordinates and facilitates placement of individuals with community providers, enables community providers through service development and capability-building, and administers some subsidy schemes.[6] In 2018, the agency was also charged with coordinating the delivery of aged-care services across both the health and the social domain.
- The Agency for Care Effectiveness, Singapore's national health technology assessment agency, which provides guidance on cost-effective drugs and treatments.

- The Health Sciences Authority, which regulates the manufacture, import, supply, storage, presentation, and advertisement of health products to meet appropriate safety, quality, and efficacy standards.
- The Health Promotion Board, responsible for promoting healthy living in Singapore. The board formulates health policies, implements health promotion and disease prevention programs (like those for school health and workplace health), and works with industry partners for healthier food products.
- The Central Provident Fund Board, which administers the MediSave and MediShield Life schemes on behalf of the Ministry of Health.

ORGANIZATION OF THE HEALTH SYSTEM IN SINGAPORE



Role of public health insurance: Singapore's national health expenditures stood at 4.47 percent of GDP in 2016.[7] Between 2009 and 2016, the government's share of health expenditures increased from about 32 percent to 41 percent due to increased public subsidies, which are intended to help reduce out-of-pocket costs.[8] Correspondingly, the out-of-pocket share of health expenditures fell from 43 percent to 31 percent. Singapore's average annual health care inflation was 2.6 percent, compared to 2.3 percent for all goods and services, between 2007 and 2017.[9]

MediShield Life premiums are subsidized by the government on the basis of income. In addition, working-age persons pay higher premiums so that older residents can have lower premium increases. These features have helped to keep annual premiums affordable, ranging from SGD 98 (USD 72)[10] for low-income Singaporeans under age 20 to SGD 1,530 (USD 1,117) for high-income residents over age 90.[11] To ease the transition from the old MediShield scheme's lower premiums (with its age cut-off and exclusion of those with preexisting illnesses) to the higher premiums of MediShield Life, which provides lifelong coverage, beneficiaries with serious preexisting conditions pay 30 percent higher premiums for the first 10 years, after which they pay the same standard premium as their low-risk counterparts.[12] During the first five years of

MediShield Life, the government cushioned the impact of bringing beneficiaries with preexisting conditions into the scheme by absorbing about 75 percent of the costs, which was approximately SGD 850 million (USD 621 million).[13]

The government provides various other subsidies to help make care more affordable:

- At public hospitals, patients can obtain a subsidy by choosing a ward with fewer amenities. For example, patients admitted to C-class wards, which are rooms with eight beds, receive a subsidy of up to 80 percent of their hospital bill for that admission. In contrast, A-class single occupancy rooms are not subsidized. Clinical care is not affected by ward class.
- Primary care visits at public clinics, known as polyclinics, are subsidized up to 75 percent, with different charges based on residency status.
- Specialist outpatient care visits can be subsidized up to 75 percent, depending on the patient's income level and residency status.
- Emergency services at public hospitals are subsidized equally for all.
- Subsidies are also provided to patients requiring intermediate and long-term care after hospital discharge, as well as to community-dwelling elderly individuals needing assistance with daily living. Subsidies are means-tested on the basis of household income or the value of a patient's residence (for those without income). Patients can receive up to a 75 percent subsidy for residential services and up to an 80 percent subsidy for nonresidential services if they are receiving care from providers approved by the Ministry of Health.[14] Additional government cash grants and subsidies for consumables and transportation services are available for patients who need assistance with daily living.

In addition, the Community Health Assist Scheme, for lower- to middle-income citizens, provides subsidies that can be used at private general practitioner (GP) and dental clinics. About 1.2 million Singaporeans are in the scheme, and they receive subsidized care at more than 1,000 GPs and 700 dental clinics.[15] In 2018, the government disbursed about SGD 152 million (USD 111 million) in subsidies under the Community Health Assist Scheme to about 630,000 Singaporeans.[16]

Government health care subsidies are funded from general taxation and are based on the principles of fiscal balance and affordability.

The government has also introduced measures to supplement Singaporeans' MediSave accounts. For example, lower-income workers receive top-ups to help them save for their retirement health care needs.[17] The government also provides annual top-ups to the MediSave accounts of eligible elderly people and gives newborns a MediSave grant of SGD 4,000 (USD 2,940) to defray part of their parents' infant care expenses.

Role of private health insurance: Patients who wish to obtain additional coverage for private hospitals or care in private wards in public hospitals can purchase private insurance. The most common coverage is through Integrated Shield Plans, which ride on MediShield Life and are available only to citizens and permanents residents with MediShield Life. As of 2017, 68 percent of citizens and permanent residents had one of these plans.[18] In contrast to the standard benefits of MediShield Life, different Integrated Shield Plans offer different benefits. Premiums for these plans can be paid for using MediSave, subject to various limits and regulations.[19]

Integrated Shield Plan holders can also purchase insurance riders that provide additional complementary coverage; these riders usually provide first-dollar coverage with either a yearly deductible or zero copayment. Premiums for riders cannot be paid with MediSave.

In recent years, there have been sharper increases in Integrated Shield premiums, especially for riders with no copayment, a trend largely reflective of increases in private hospital insurance claims.[20] To address concerns about the overuse of services and about overcharging, the Ministry of Health has required that new Integrated Shield Plan riders have a minimum 5 percent copayment with an annual cap on copayments.[21]

There are also private insurance options, offered by for-profit insurers, that are not integrated with MediShield Life. Premiums for these other insurance options cannot be paid from MediSave. Many employers also extend medical benefits to their employees.

Because of the many insurance options available, there may be varying degrees of coverage duplication by MediShield Life, employer benefits, and personal health insurance.

Services covered: Services covered under MediShield Life are[22]:

- inpatient treatments and care, including surgery, radiosurgery, and bone marrow transplants
- day surgeries
- psychiatric hospital stays
- selected outpatient treatments, including kidney dialysis and chemotherapy and radiotherapy for cancer
- some costly long-term medications, such as immunosuppressants after an organ transplant.

MediShield Life does not cover cosmetic surgery or maternity charges (including cesarean sections), with the exception of treatments for serious complications related to pregnancy and childbirth.

The maximum amount that can be claimed from MediShield Life depends on the claim limit, which varies by type of treatment and length of hospital stay. The maximum claim limit per policy year is set at SGD 100,000 (USD 73,000); there is no lifetime limit.

Singaporeans are expected to pay for the rest of their health care costs (after government subsidies and MediShield Life payments) from their MediSave accounts or out-of-pocket. MediSave can be used to pay for many services, including chronic care, maternity care, fertility treatments, hospice and palliative care, and day rehabilitation services.

Limits on withdrawals from MediSave accounts ensure that Singaporeans have enough in those accounts for basic health care needs in old age. Withdrawal limits are adequate to ensure that most charges incurred for outpatient treatments and treatments at subsidized inpatient wards are covered. Withdrawal limits have been raised to keep pace with rising costs.

Cost-sharing and out-of-pocket spending: Under MediShield Life, residents have an annual deductible of SGD 1,500 to SGD 3,000 (USD 1,095–2,190) and coinsurance of 3 percent to 10 percent (with the coinsurance percentage decreasing as the claimable amount increases).[23] For current outpatient treatments, there is 10 percent coinsurance.

Copayments (see table below) have been an integral feature of Singapore's health care system as a way to retain individual responsibility for one's health, as well as provider and system discipline pertaining to health care costs. Patients pay directly for part of the cost of services, and pay more when they demand a higher level of services.[24]

Safety nets: The combination of government subsidies, MediShield Life, and MediSave has enabled seven in 10 subsidized bills to be fully paid without any cash outlay by the patient. Of the remaining 30 percent of bills, one-third require a patient payment of SGD 100 (USD 73) or less in cash, and another third cost patients SGD 100 to SGD 500 (USD 73–365).[25]

MediFund is an endowment fund set up by the government in 1993 that serves as a safety net for Singaporeans who need further help with the remaining cash component of their health care bills at public health care institutions, after insurance and MediSave. MediFund coverage has been enhanced over the years to cover more outpatient and community-based care as well as to provide more targeted assistance to disadvantaged children and elderly people.

During years of budget surpluses, the government tops up the principal sum, redistributing the benefits of economic growth to Singaporeans in need. This measure has enabled an increase in enrollment in MediFund, which provided about SGD 150 million (USD 110 million) in assistance in 2017, up from SGD 4.7 million (USD 3.4 million) in 1993.[26]

TYPICAL PATIENT COPAYMENTS AND SAFETY NETS			
SERVICE	**FEES PER ENCOUNTER/SERVICE**	**MAXIMUM OUT-OF-POCKET COSTS PER YEAR**	**SAFETY NET**
Primary care visit	Public clinics: • SGD 13.20 (USD 9.60) for adults • SGD 6.90 (USD 5.00) for children and elderly	No annual cap on out-of-pocket spending	
Specialist consultation (public sector)	Citizens*: • Subsidized patients: SGD 39 (USD 28.60) • Private patients: SGD 79.20–146.60 (USD 58.10–107.50)		Patients can receive subsidies of up to 75% for specialist outpatient care, depending on income and residency status*
Hospitalization (public sector) including pharmaceuticals	Total bill per day with MediShield Life deductible and coinsurance (3%–10%): • C-class hospital ward: SGD 2,046 (USD 1,494) • A-class hospital ward: SGD 6,565 (USD 4,792)		There are means-tested subsidies and assistance programs, such as MediFund, for low-income individuals.
Prescription drugs (outpatient)	Standard Drug List 1 (essential first-line drugs): SGD 1.40 (USD 1.02) per item per week Standard Drug List 2: 50% of costs		

Note: Most costs shown here apply to citizens; higher prices apply to permanent residents and nonresidents[27]

How is the delivery system organized and how are providers paid?

Physician education and workforce: Singapore has three medical schools, all of which are part of public universities. Clinical teaching is carried out almost exclusively in public health care institutions. The government regulates the number of doctors by varying the number of admissions to medical schools according to projected needs. The pipeline of doctors is supplemented by foreign-trained doctors. The government regulates the entry of these doctors by adjusting a list of approved overseas medical schools.[28]

Between 2012 and 2018, the total annual admissions of medical students to the three local universities increased by about 40 percent. Tuition fees are heavily subsidized: net annual fees for Singapore nationals are about SGD 29,000 to 33,000 (USD 21,000 to 24,000) for five-year undergraduate medical programs, or SGD 47,000 (USD 34,000) for four-year graduate programs.[29] Upon graduation, all medical students are required to work in the public health care system for four to five years.[30]

As of 2018, Singapore had 13,766 registered medical practitioners, with nearly two-thirds in the public sector. This translates to about 2.4 doctors per 1,000 people, a significant increase from 1.9 in 2012. Around 41 percent of doctors are specialists.[31]

Primary care: Primary care is provided through public polyclinics and private GPs. There are currently 20 polyclinics and more than 2,200 GP clinics.[32] Polyclinics usually have more than 10 doctors and some also provide dental, psychiatric, and allied health services. Polyclinics provide 20 percent of primary care, with a strong focus on chronic-disease management.[33]

The majority of GP clinics operate as solo practices (including those run by clinic chains), and primarily operate on a fee-for-service payment model; the clinics have flexibility to set their own fees. Patients can choose a primary care doctor at a polyclinic or at a GP clinic, and they can usually walk in and be seen the same day without needing a prior appointment. Patients are free to change providers or to be seen by two or more providers over a given period.

The Ministry of Health has launched several initiatives over the years to tap into the capability and capacity of GPs, including the Chronic Disease Management Program, which covers 20 chronic diseases. Another initiative, the Primary Care Networks (PCN) scheme, aims to anchor effective chronic-disease management in primary care through the organization of like-minded GPs in a network. As of 2019, there are 10 primary care networks and more than 350 participating GP clinics.

The ministry provides resources to these PCNs for managing patients with complex needs, including nurse counsellors and care coordinators, chronic-disease registries, and administrative support. In return, GPs in PCNs are expected to adhere to stipulated clinical quality requirements.[34]

In terms of manpower, 59 percent of registered doctors are nonspecialists, including primary care doctors and those still undergoing specialist training in public institutions. The gross median monthly income for GPs is SGD 13,707 (USD 10,006), while the gross median monthly income for specialists is SGD 20,078–23,705 (USD 14,657–17,305).[35]

Outpatient specialist care: Specialist outpatient services are provided by both the public and the private sector on a fee-for-service basis. Public-sector specialists are salaried and see both private and subsidized patients in the specialist outpatient clinics of public hospitals and national specialty care centers.[36] Fees for private and subsidized patients at these clinics are determined by and paid to the hospital.

Polyclinic referrals are considered subsidized patients at specialist outpatient clinics, while referrals from GPs are treated as private patients unless they are referred by clinics accredited by the Community Health Assist Scheme. Patients who refer themselves to specialist outpatient clinics are considered private patients. Private patients can choose their specialist, while subsidized patients have a specialist assigned to them.

Private specialist clinics receive referrals from GPs as well as self-referrals, and have flexibility to set their fees.

Administrative mechanisms for direct patient payments to providers: Singaporeans prepay for care through MediSave (via payroll deductions) and MediShield Life (mandatory premiums).

After-hours care: Polyclinics are not open at night or on Sundays and public holidays. However, a significant number of GP clinics are open at night and on weekends and public holidays. Thirty GP clinics are open 24 hours, as are emergency departments in public hospitals and some emergency clinics in private hospitals. There are also telehealth providers that are available any time of day.

Hospitals: As of 2017, Singapore had 18 acute care hospitals: nine public hospitals, eight for-profit hospitals, and one not-for-profit Catholic hospital.

In total, Singapore has 2.4 beds per 1,000 population.[37] The majority of public-hospital patients are admitted through emergency departments, making up more than 70 percent of admissions. Admissions to private hospitals tend to be elective.

Legally speaking, public hospitals are corporatized companies wholly owned by the government.[38] As owner, the government can shape hospitals' behavior without having to resort to onerous regulations or purchase negotiations.[39] This has enabled the Ministry of Health to reorganize the public health care system to ensure better-coordinated and seamless care (for example, by creating integrated clusters of public hospitals and polyclinics).

The government funds public hospitals on the basis of diagnosis-related groups (DRGs) for inpatient and day surgery services and per piece rates for outpatient visits subject to an overall block.[40] Public hospitals are required to meet expenses from government payments and patient fees. Public hospitals are allowed to keep surpluses but need to meet shortfalls from their reserves, unless there are exceptional circumstances.

The government introduced community hospitals to provide rehabilitation and subacute care, including to patients who have dementia or need palliative care. Community hospitals also provide outpatient services, such as day rehabilitation. There were seven community hospitals in 2018, with nearly 1,700 beds.[41] The Ministry of Health pays community hospitals on a per-diem basis. Patients admitted to community hospitals may be eligible for subsidized care, ranging from 20 percent to 75 percent based on their per-capita household income and residency status.

Mental health care: The Institute of Mental Health, a public hospital, is Singapore's only psychiatric hospital, and provides acute tertiary psychiatric, rehabilitative, and counselling services for children, adolescents, adults, and the elderly. It has both inpatient wards, with more than 2,000 beds, and Specialist Outpatient Clinics at various community locations. The Community Mental Health Team, which comprises doctors, community psychiatric nurses, and allied health professionals, provides community-based treatment and psychosocial rehabilitation for patients after discharge so they may continue to live in the community while working toward recovery.

Other public and private hospitals also have psychological medicine departments or specialists that offer psychiatric services.

The Ministry of Health is working with health care institutions and professionals to implement the Community Mental Health Plan, which was launched in 2017. By early 2019, mental health or dementia services were available at 12 polyclinics.

The ministry has also expanded the Mental Health General Practitioner (GP) Partnership program to encourage patients with emotional health issues to seek early treatment. GPs in the program can prescribe psychiatric drugs at a lower cost and have a liaison coordinator to facilitate referrals between services. Patients can also get subsidies for mental health conditions.

The number of GPs trained to diagnose and support persons with mental health conditions grew from 70 in 2012 to 190 by the end of 2018. These GPs are supported by 20 community intervention teams led by allied health professionals.[42]

Long-term care and social supports: There are three main groups of long-term care services.

Center-based services. These cater to seniors who require care services during the day on a regular basis while their family members are at work. As of 2017, there were 102 day care centers, dementia day care centers, day rehabilitation centers, and senior care centers.

Home-based services. As of 2017, there were 21 home medical and home nursing providers, and nine home palliative care providers.[43] In addition, three inpatient hospices are run by charitable organizations.

Long-term residential facilities. Nursing homes provide a range of services, including medical care, nursing care, and rehabilitative services to residents who are unable to be cared for at home. Respite care is also available at some of the nursing homes. As of 2017, there were 73 nursing homes, including private, nonprofit, and public facilities, contributing a total of approximately 14,900 beds.[44] The Ministry of Health contributes to the growth and development of eldercare services in Singapore, as well as the development of nursing homes, under its Build Own Lease framework.

MediSave cannot currently be used for nursing home services or home-/center-based services, but residents can use ElderShield, a basic long-term care insurance scheme designed to cover severe disability, especially during old age, on top of government subsidies of up to 80 percent for various services.[45] Coverage is automatically extended to all citizens and permanent residents with a MediSave account when they reach age 40. Residents can opt out, and the opt-out rate is 5 percent in recent years.[46]

ElderShield is a prefunded insurance scheme within which premiums are collected during policyholders' working years and risk-pooled within each generation. Premiums do not rise with age, and policyholders are covered for life. The scheme provides monthly cash payouts of $400 for 72 months or $300 for 60 months, depending on the plan.[47] Policyholders can also purchase supplements that provide higher coverage — for example, higher payouts or a longer duration of payouts — and pay for premiums using their MediSave coverage (up to a limit).

What are the major strategies to ensure quality of care?

The Ministry of Health's key legislative tool for regulating health care providers is the Private Hospitals and Medical Clinics Act. Health care facilities, such as hospitals, nursing homes, clinics, and clinical laboratories, are required to obtain a license before they can commence operations. They are also subject to regular compliance audits and relicensing.

Health care professionals are regulated by their respective professional boards, which are set up as statutory bodies under the Ministry of Health. In addition, hospitals are required to put in place a clinical privileging system that grants doctors the appropriate scope of practice commensurate with their areas of competence. There are also additional requirements for specific high-risk specialized procedures or services; doctors are required to apply for authorization before providing these procedures or services. Hospitals must establish quality assurance committees to monitor and evaluate the safety and quality of their practices, procedures, and services.

The ministry benchmarks the performance of Singapore's system against international counterparts, and conducts annual patient experience surveys of public health care institutions. Some health care institutions have voluntarily undertaken external accreditations, such as those provided by the Joint Commission International.

Under the Chronic Disease Management Program, participating primary care clinics and medical institutions are expected to provide care in line with the latest clinical practice guidelines or best available evidence-based practice, as well as to track clinical data to monitor outcomes.[48] Participation is a prerequisite for joining the Community Health Assist Scheme.[49]

What is being done to reduce disparities?

In public hospitals, care is provided based on patients' clinical condition, rather than on their subsidy status. When nonsubsidized drugs or treatments are deemed clinically required and cannot be replaced by subsidized alternatives, needy patients receive assistance (such as through MediFund) in accessing these drugs or treatments.

Singapore has also adopted a system of differentiated charges, based on a patient's and his or her family's ability to pay. Means-testing is used, but even higher-income patients receive subsidies when they access subsidized services (although they pay more than lower-income patients). For example, higher-income patients who choose to stay in subsidized C-class hospital wards will receive up to a 65 percent subsidy while lower-income patients in these wards receive up to an 80 percent subsidy. Nearly all government-funded services, from acute to long-term care, have differentiated charges, except for polyclinic services and accident and emergency services.

The government has also introduced schemes to assist specific cohorts of Singaporeans:

- The Pioneer Generation package, honoring older residents[50] who contributed to Singapore's nation-building but are unlikely to have accumulated sufficient money in their MediSave accounts to support retirement health needs, as MediSave was introduced late in their working lives. Pioneers receive additional outpatient care subsidies, annual MediSave top-ups (up to $800), and MediShield Life premium subsidies (up to 60%).[51]
- The Merdeka Generation package, which recognizes Singaporeans who laid the groundwork for an independent Singapore.[52] The benefits include MediSave top-ups of $200 per year for five years beginning in 2018. Merdeka Generation seniors also receive additional subsidies for outpatient care at certain clinics, as well as an additional subsidy of 5 percent for their annual MediShield Life premiums that increases to 10 percent at age 75.[53]

What is being done to promote delivery system integration and care coordination?

In 2018, the Ministry of Health established three integrated clusters organized by geographic regions and made up of public-sector institutions ranging from acute hospitals to polyclinics. Each cluster is expected to develop and strengthen partnerships with GPs and other community partners across care settings to enable seamless care transitions and also to anchor care more firmly in primary and community settings.

The clusters have embarked on several programs, ranging from preventive health and chronic disease to caring for frail patients. The clusters also work with social and other related agencies to support residents who have varying combinations of health and social needs as well as to address social determinants of health. While the elderly remain a key area of focus, the clusters have adopted a life-course approach and are progressively addressing other age groups as well.

In addition to ensuring better system integration, the reorganization of providers seeks to derive greater economies of scale, to facilitate scaling up of programs and services, and to tap into a larger pool of manpower resources and talents.

What is the status of electronic health records?

Since 2011, Singapore's national electronic health record (EHR) has been progressively deployed to both public and private health care institutions to support the goal of "One Patient, One Health Record." The national EHR is owned by the Ministry of Health and managed by Integrated Health Information Services. The secure system collects summary patient health records from different health care providers, and authorized health care professionals can access the EHR to have a holistic and longitudinal view of a patient's health care history.[54] As of 2019, more than 1,300 health care institutions participate in the national EHR.[55]

Singaporeans and permanent residents can access some of their health records via HealthHub, a national one-stop health portal. They can also track and manage their medical appointments, request medication refills or renewals, and view bills and make payments at select public hospitals, national centers, and polyclinics.[56]

How are costs contained?

The hallmark of Singapore's health care market has been strong government control and oversight.[57] Demand- and supply-side controls encourage patients and providers to be judicious and cost-conscious in their use of health care services.[58] In

addition, the public sector's role as the dominant health care provider sets the benchmark for the private sector, as well as the entire health system's ethos of deemphasizing profit maximization.[59,60] Private providers need to ensure that they do not price themselves out of a market where public-sector care is available, and therefore offer reasonable prices and quality.

The corporatization of public hospitals has introduced commercial accounting systems, which provide a more accurate picture of operating costs and instill greater financial discipline and accountability. In the costing and funding of hospitals, the depreciation of equipment and other fixed asset costs are registered and factored into annual budgets and, in turn, patient charges and government funding.

The Ministry of Health also closely monitors cost-recovery ratios for different types of services to ensure that public hospitals' overall revenue is not excessive. Costs and funding rates are set through a detailed costing exercise. Funding amounts are then incremented annually, taking into consideration volume and cost growth, but set deliberately lower than actual trends. This process compels hospitals to be disciplined with their spending, as they have limited ability to charge patients more to recover any shortfalls.[61]

The Ministry of Health encourages the appropriate use of drugs through the provision of subsidies for essential drugs. Patients pay only a small amount for clinically relevant and cost-effective drugs on the standard drug list. Subsidies are also available for a list of more expensive, nonstandard drugs under the Medication Assistance Fund. Patients receiving these drugs must meet predefined clinical criteria. The Medication Assistance Fund scheme was expanded in 2012 to allow each institution to determine, through a specific set of guidelines and a peer-review mechanism, whether a nonstandard drug should be subsidized by the fund.[62]

The Ministry of Health publishes public and private hospitals' history of transacted hospital bill amounts and operation fees to encourage consumers to be price-conscious and to stimulate price competition among providers. In late 2018, the ministry also began setting fee benchmarks for private-sector health professionals, with input from an independent committee that includes representatives from the medical community, providers, patients, and payers. Intended to help the public assess the reasonableness of provider charges, the benchmarks will be reviewed and updated regularly, with reference to historical data. Doctors are not prohibited from charging lower or higher fees.[63]

Other cost-control initiatives include using technology to improve productivity, and the use of group purchasing procurement to obtain better prices. Supply chain professionals from the three public health care clusters harness their synergies in meeting procurement and supply chain needs. Public hospitals are also evolving their model of care to help Singaporeans receive care in the most appropriate setting.

What major innovations and reforms have recently been introduced?

In late 2017, the Ministry of Health launched its Beyond Healthcare 2020 strategy to move more care to the community, encourage health promotion, and ensure value.[64]

In 2018, the ministry launched the Licensing Experimentation and Adaptation Program, a regulatory "sandbox" for identifying and understanding new health care innovations, such as telemedicine and mobile medicine, through industry partnerships. The program seeks to develop an appropriate regulatory approach to facilitate such innovations while prioritizing patient safety and welfare.[65]

To provide better protection against long-term care costs, the ministry will launch CareShield Life in 2020 to replace ElderShield. The new scheme will have higher cash payouts, starting at SGD 600 (USD 438) and increasing over time. There is no cap on payout for as long as the policyholder remains severely disabled.[66] CareShield Life will be mandatory for citizens and permanent residents born in or after 1980. In addition, people with severe disabilities can withdraw up to SGD 2,400 (USD 1,752) per year, or SGD 200 (USD 146) per month, from their own and their spouse's MediSave account for their long-term care needs, after setting aside a minimum amount for other health care needs.

The Ministry of Health will also be launching ElderFund in 2020, to provide discretionary assistance, up to SGD 250 (USD 183) per month, for severely disabled and needy citizens who require further help with their long-term care costs.

In addition, the ministry and public hospitals are working on value-driven outcomes with inter- and intra-hospital benchmarking to minimize unnecessary variation and to encourage the adoption of best practices. The ministry has also started to bundle payments to facilitate care transformation and reward efficiency. And it has implemented a pay-for-performance framework to reward the three public health care clusters that do well on key priorities, such as reducing hospital-acquired infections, managing length of stay, and minimizing waiting time for specialist appointments.

The author would like to acknowledge Chang Liu and Ruru Ping of ACCESS Health International as contributing authors to earlier versions of this profile.

REFERENCES

1. Ministry of Health Singapore, "Update on the Number of People Using Their MediSave to Pay for Their Parents' Healthcare Cost," (Jan. 15, 2019), https://www.moh.gov.sg/news-highlights/details/update-on-the-number-of-people-using-their-medisave-to-pay-for-their-parents'-healthcare-cost.
2. Ministry of Health Singapore, *Singapore's Healthcare System*, www.moh.gov.sg/our-healthcare-system.
3. Ministry of Health Singapore, *Affordable Healthcare* (1993).
4. J. Lim, "Sustainable Health Care Financing: The Singapore Experience," *Global Policy* 8, suppl. 2 (April 12, 2017): 103–107.
5. E. Quah and N.B. Siong, "Evolving the Governance of Public Healthcare Institutions – A Continuous Improvement Journey," in *Singapore's Health Care System: What 50 Years Have Achieved, eds.* L.C. Earn and K. Satku (World Scientific Publishing, 2016).
6. AIC's origin dates from 1992, when the MoH set up the Care Liaison Services (CLS) to coordinate and facilitate the placement of elderly sick people in nursing homes and chronic sick units. Its role grew and it was renamed AIC in 2008.
7. World Bank, "Current Health Expenditure (% of GDP)," https://data.worldbank.org/indicator/SH.XPD.CHEX.GD.ZS.
8. World Health Organization, "Global Health Expenditure Database," http://apps.who.int/nha/database/; accessed Oct. 6, 2019.
9. Ministry of Health Singapore, "Healthcare Inflation," (Nov. 19, 2018), https://www.moh.gov.sg/news-highlights/details/healthcare-inflation.
10. Please note that, throughout this profile, all figures in Singapore dollars (SGD) were converted to U.S. dollars (USD) at a rate of about SGD $1.00 to USD $0.73, based on the rate from www.xe.com on Nov. 14, 2019.
11. Ministry of Health Singapore, "MediShield Life," https://www.moh.gov.sg/cost-financing/healthcare-schemes-subsidies/medishield-life.
12. Ministry of Health Singapore, "Government Accepts Recommendations of Medishield Life Review Committee; Announces 4 Billion in Subsidies and Support for Medishield Life Premiums," press release, June27, 2014, https://www.moh.gov.sg/news-highlights/details/government-accepts-recommendations-of-medishield-life-review-committee-announces-4-billion-in-subsidies-and-support-for-medishield-life-premiums.
13. Ministry of Health Singapore, "Healthcare Schemes and Subsidies," https://www.moh.gov.sg/cost-financing/healthcare-schemes-subsidies.
14. Ministry of Health Singapore, "Healthcare Schemes and Subsidies."
15. The CHAS was enhanced in November 2019 with a new tier that extends coverage to all Singaporeans for chronic conditions, regardless of income.
16. Ministry of Health Singapore, "Keeping Healthcare Sustainable and Affordable," *Committee of Supplies 2019 Factsheet*, https://www.moh.gov.sg/docs/librariesprovider5/default-document-library/cos-factsheet-keeping-healthcare-sustainable-affordable.PDF.
17. Government of Singapore, "Workfare," https://www.workfare.gov.sg/Pages/AboutWorkfare.aspx.
18. "Chart of the Day: How Much Are Singaporeans Covered by Public Health Insurance?" *Singapore Business Review* (June 13, 2019), https://sbr.com.sg/healthcare/news/chart-day-how-much-are-singaporeans-covered-public-health-insurance.
19. Central Provident Fund Board, "Private Medical Insurance Scheme," https://www.cpf.gov.sg/Members/Schemes/schemes/healthcare/private-medical-insurance-scheme.
20. Twenty-nine percent of Singapore residents have full riders and pay nothing regardless of bill size, as of March 2018. Ministry of Health Singapore, "Inflation in Premiums for Private Hospitalisation Insurance Plans" (July 8, 2019), https://www.moh.gov.sg/news-highlights/details/inflation-in-premiums-for-private-hospitalisation-insurance-plans.
21. Speech by Chee Hong Tat, Senior Minister of State for Health, at the MOH Committee of Supply Debate 2018, March 7, 2018, https://www.moh.gov.sg/news-highlights/details/speech-by-mr-chee-hong-tat-senior-minister-of-state-for-health-at-the-moh-committee-of-supply-debate-2018.
22. Ministry of Health Singapore, "MediShield Life Benefits," https://www.cpf.gov.sg/Members/Schemes/schemes/healthcare/medishield-life.
23. Ministry of Health Singapore, "MediShield Life," https://www.moh.gov.sg/cost-financing/healthcare-schemes-subsidies/medishield-life.
24. Ministry of Health Singapore, *Affordable Health Care* (1993).
25. Ministry of Health Singapore, "MediShield Life Coverage," (Jan. 15, 2019), https://www.moh.gov.sg/news-highlights/details/medishield-life-coverage.
26. Ministry of Health Singapore, "Healthcare Financing," https://www.moh.gov.sg/docs/librariesprovider5/default-document-library/healthcare-financing_esh-apr2019.xlsx.
27. Singapore General Hospital, "Outpatient Charges," https://www.sgh.com.sg/patient-services/charges-payment/pages/outpatient-charges.aspx.
28. Ministry of Health Singapore, "Revision to List of Overseas Medical Schools for Registration to Practise in Singapore," press release, April 18, 2019, https://www.moh.gov.sg/news-highlights/details/revision-to-list-of-overseas-medical-schools-for-registration-to-practise-in-singapore.
29. National University of Singapore, "Undergraduate Students Tuition Fees per Annum," http://www.nus.edu.sg/registrar/info/ug/UGTuitionCurrent.pdf#page2.
30. National University of Singapore, "Fees for Undergraduate Programmes," http://www.nus.edu.sg/registrar/education-at-nus/undergraduate-education/fees.html.
31. Ministry of Health Singapore, "Health Manpower," https://www.moh.gov.sg/resources-statistics/singapore-health-facts/health-manpower.
32. Ministry of Health Singapore, "Health Facilities," https://www.moh.gov.sg/resources-statistics/singapore-health-facts/health-facilities.
33. Ministry of Health Singapore, *Primary Care Survey 2014*, https://www.moh.gov.sg/docs/librariesprovider5/resources-statistics/reports/moh-primary-care-survey-2014-report.PDF.
34. Ministry of Health Singapore, "Developing Primary Care Networks for Better Care in the Community," press release, March 29, 2019, https://www.moh.gov.sg/news-highlights/details/developing-primary-care-networks-for-better-care-in-the-community.
35. Manpower Research & Statistics Department, Ministry of Manpower Singapore, "Occupational Wage Survey," https://stats.mom.gov.sg/iMAS_Tables1/Wages/Wages_2018/mrsd_2018Wages_table4.xlsx.
36. Singapore has six national centers that serve as national tertiary centers for cancer, dental, eye, heart, neurosciences, and skin.

37. Ministry of Health Singapore, "Health Facilities," https://www.moh.gov.sg/resources-statistics/singapore-health-facts/health-facilities.

38. M. Ramesh, "Reasserting the Role of the State in the Health Care Sector: Lessons from Asia," *Policy and Society*, 27, no. 2 (2008): 129–136.

39. M. Ramesh and S.B. Azad, "The Healthcare system in Singapore," *Global-is-Asian* (Lee Kuan Yew School of Public Policy), https://lkyspp.nus.edu.sg/docs/default-source/gia-documents/the-healthcare-system-in-singapore-with-graphics.pdf?sfvrsn=f0446c0a_2.

40. Public hospitals also receive above-the-block funding for new initiatives and programs such as new service development, research, and education.

41. Ministry of Health Singapore, "Health Facilities," https://www.moh.gov.sg/resources-statistics/singapore-health-facts/health-facilities.

42. Speech by Dr. Amy Khor, Senior Minister of State for Health, at the Ministry of Health Committee of Supply Debate 2019, March 6, 2019, https://www.moh.gov.sg/news-highlights/details/speech-by-dr-amy-khor-senior-minister-of-state-for-health-at-the-ministry-of-health-committee-of-supply-debate-2019-on-wednesday-6-march-2019.

43. Ministry of Health Singapore, "Health Facilities," https://www.moh.gov.sg/resources-statistics/singapore-health-facts/health-facilities. These data refer to providers who are funded by the MoH and/or are receiving referrals from AIC. Data on non-MoH-funded services are not available as these services do not need to be licensed by the MoH. These providers are governed by their respective professional licensing bodies.

44. Ministry of Health Singapore, "Beds in Inpatient Facilities and Places in Non-Residential Long-Term Care Facilities," https://www.moh.gov.sg/resources-statistics/singapore-health-facts/beds-in-inpatient-facilities-and-places-in-non-residential-long-term-care-facilities.

45. From 2020 onward, MediSave long-term care allows the monthly withdrawal of up to $200 dollars to assist with long-term care costs, which can be used to pay for nursing home services.

46. L. Lai, "Eldershield Review Committee Proposes Severe Disability Insurance Scheme Be Made Compulsory for Future Cohorts," *Straits Times*, Jan. 30, 2018, https://www.straitstimes.com/singapore/health/eldershield-review-committee-wants-scheme-made-compulsory.

47. Central Provident Fund Board, "ElderShield," https://www.cpf.gov.sg/Members/Schemes/schemes/health care/eldershield.

48. K.B. Tan and C.E. Lee, "Integration of Primary Care with Hospital Services for Sustainable Universal Health Coverage in Singapore," *Health Systems & Reform* 5, no. 1 (2019): 18–23.

49. Primary Care Pages, "Chronic Disease Management Programme (CDMP)," https://www.primarycarepages.sg/practice-management/moh-national-schemes/chronic-disease-management-programme-(cdmp).

50. Those born before December 31, 1930, or age 65 and above in 2014.

51. Pioneer Generation, https://www.pioneers.sg/en-sg/Pages/Home.aspx.

52. Singaporeans born between January 1, 1950, and December 31, 1959, and who became Singapore citizens on or before December 31, 1996.

53. Merdeka Generation, "Merdeka Generation Package: Benefits," https://www.merdekageneration.sg/en/benefits.

54. Information stored in the national EHR includes discharge summaries, laboratory test and radiology results, medication history of surgeries or procedures, allergies and adverse drug reactions, and immunizations.

55. Ministry of Health Singapore, "Institutions participating in the National Electronic Health Records System (NEHR)," https://www.moh.gov.sg/institutions-participating-in-the-national-electronic-health-records-system-(nehr); accessed Aug. 15, 2019.

56. Ministry of Health Singapore, Health Hub, https://www.healthhub.sg/myhealth#PersonalHealth.

57. J.W. Thomas and S.G. Lim, *Using Markets to Govern Better in Singapore*, Harvard University faculty research working paper (2001), https://research.hks.harvard.edu/publications/workingpapers/citation.aspx?PubId=7993.

58. Ramesh et al., "The Healthcare System in Singapore."

59. Ministry of Health Singapore, "Hospital Services," https://www.moh.gov.sg/our-health care-system/health care-services-and-facilities/hospital-services.

60. W. Haseltine, *Affordable Excellence: The Singapore Healthcare Story* (Brookings Institution Press, 2013).

61. Lai, "Paying for Healthcare."

62. B.K.H. Png, "Singapore's Approach to the Challenge of High-Cost Medical Interventions," *Asia-Pacific Biotech News* 19, nos. 04–05 (April–May 2015), https://www.asiabiotech.com/19/1904n05/1904n050042x.html.

63. Ministry of Health Singapore, "Fee Benchmarks Provide Stakeholders a Reasonable Range of Fees for Common Surgical Procedures," press release, Jan. 15, 2019, https://www.moh.gov.sg/news-highlights/details/fee-benchmarks-provide-stakeholders-a-reasonable-range-of-fees-for-common-surgical-procedures.

64. S. Khalik, "The '3 Beyonds': Singapore's Strategy to Sustain Quality Healthcare as Demand Rises," *Straits Times*, Nov. 30, 2017, https://www.straitstimes.com/singapore/health/the-3-beyonds-singapores-strategy-to-sustain-quality-healthcare-as-demand-rises.

65. Ministry of Health Singapore, "Licensing Experimentation and Adaptation Programme (LEAP) – Aa MoH Regulatory Sandbox," https://www.moh.gov.sg/our-healthcare-system/licensing-experimentation-and-adaptation-programme-(leap)---a-moh-regulatory-sandbox.

66. Ministry of Health Singapore, "CareShield Life," https://www.moh.gov.sg/careshieldlife/about-careshield-life.

The Swedish Health Care System

Anna H. Glenngård
Lund University School of Economics and Management

Sweden's universal health system is nationally regulated and locally administered. The Ministry of Health and Social Affairs sets overall health policy, the regions finance and deliver health care services, and the municipalities are responsible for the elderly and disabled. Funding comes primarily from regional- and municipal-level taxes. Grants are also provided by the central government. Enrollment is automatic. Covered services include inpatient, outpatient, dental, mental health, and long-term care, as well as prescription drugs. Regions set provider fees at all levels of care, as well as copayment rates for services such as primary care visits and hospitalizations. Dental and pharmaceutical benefits are determined nationally and are subsidized. Approximately 13 percent of employed residents have private supplemental coverage, mostly for improved access to private specialists.

How does universal health coverage work?

The Health and Medical Services Act states that Sweden's health system must cover all legal residents.[1] Coverage is universal and automatic. Emergency coverage is provided to all patients from the European Union, European Economic Area countries, and nine other countries with which Sweden has bilateral agreements. Asylum-seeking and undocumented children have the right to health care services, as do children who are permanent residents. Adult asylum-seekers and undocumented adults have the right to receive care that cannot be deferred, such as maternity care.

Three basic principles apply to all health care in Sweden:

- Human dignity: All human beings have an equal entitlement to dignity and have the same rights regardless of their status in the community.
- Need and solidarity: Those in greatest need take precedence in being treated.
- Cost-effectiveness: When a choice has to be made, there should be a reasonable balance between costs and benefits, with costs measured in relation to improvement in health and quality of life.

Role of government: All three levels of Swedish government are involved in the health care system.

- At the national level, the Ministry of Health and Social Affairs is responsible for overall health care policy and regulation and sets budgets for government agencies and grants to regions, working in concert with eight national government agencies.
- At the regional level, 21 regional bodies are responsible for financing and delivering health services to residents.
- At the local level, 290 municipalities are responsible for care of the elderly and the disabled, including long-term care.

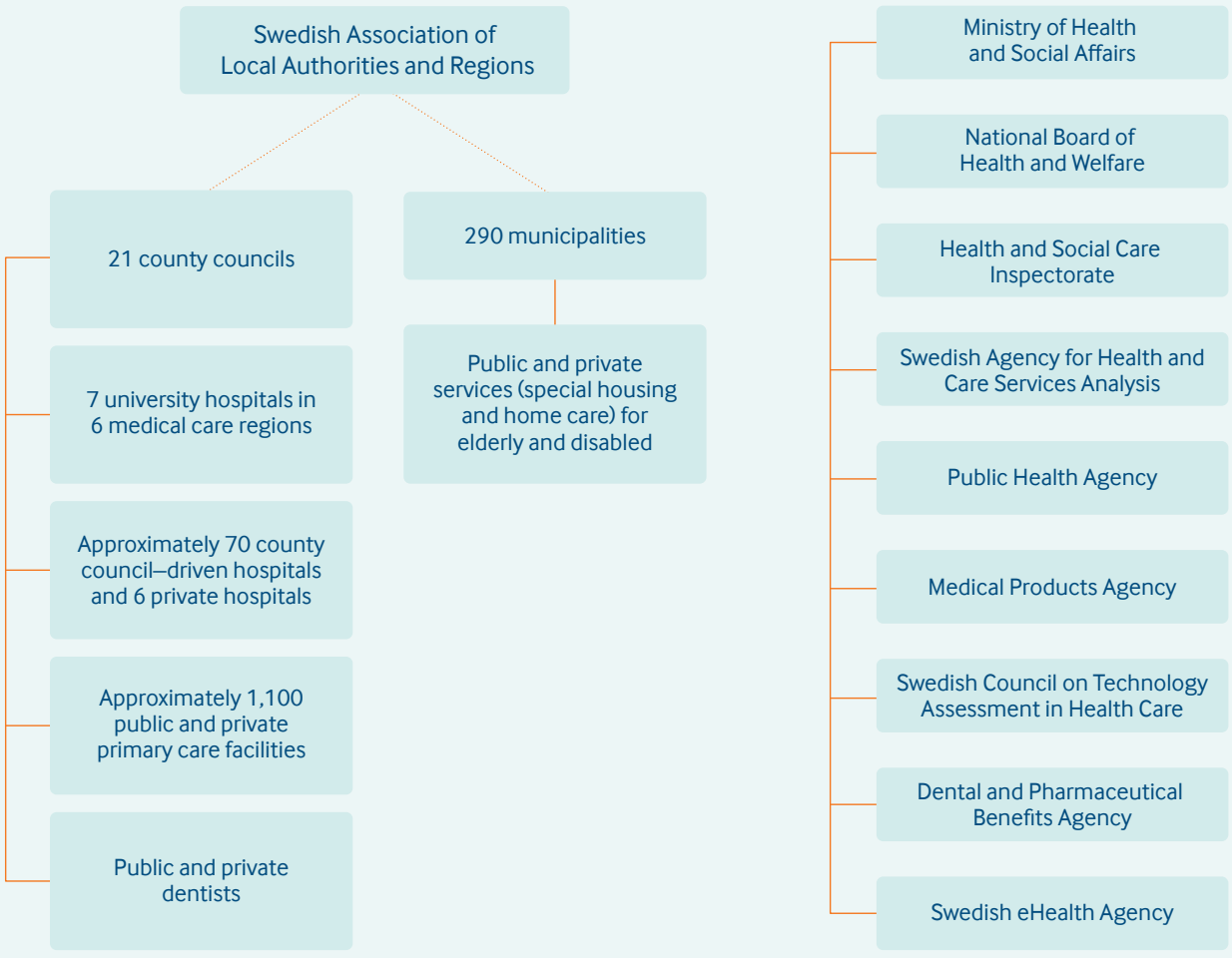
The local and regional authorities are guided by local priorities and national regulation in their decisions. Nationally, they are represented by the Swedish Association of Local Authorities and Regions (SALAR).

Eight independent government agencies are directly involved in medical care and public health:

- The National Board of Health and Welfare supervises and licenses all health care personnel, disseminates information, develops norms and standards for medical care (e.g., national guidelines for specific therapeutic areas), and, through data collection and analysis, ensures that those norms and standards are met. The agency also maintains health data registries and official statistics.
- The Swedish eHealth Agency promotes information-sharing among health and social care professionals and decision-makers. It stores and transfers electronic prescriptions issued in Sweden and is responsible for transferring electronic prescriptions abroad. The agency is also responsible for statistics on drugs and pharmaceutical sales.
- The Health and Social Care Inspectorate is responsible for supervising health care, social services, and activities concerning support and services for people with disabilities. It is also responsible for issuing permits in those areas.
- The Swedish Agency for Health and Care Services Analysis analyzes and evaluates health policy and the availability of health care information to citizens and patients.

- The Public Health Agency provides the national government, government agencies, municipalities, and regions with evidence-based knowledge regarding infectious-disease control and public health.
- The Swedish Council on Technology Assessment in Health Care promotes the use of cost-effective health care technologies. The council reviews and evaluates new treatments from medical, economic, ethical, and social points of view.
- The Dental and Pharmaceutical Benefits Agency is the principal agency for assessing pharmaceuticals. Since 2002, it has had a mandate to decide whether particular drugs and medical devices should be included in the National Drug Benefit Scheme; prescription drugs and medical devices are priced, in part, on the basis of their value. The agency's mandate also includes dental care.

ORGANIZATION OF THE HEALTH SYSTEM IN SWEDEN



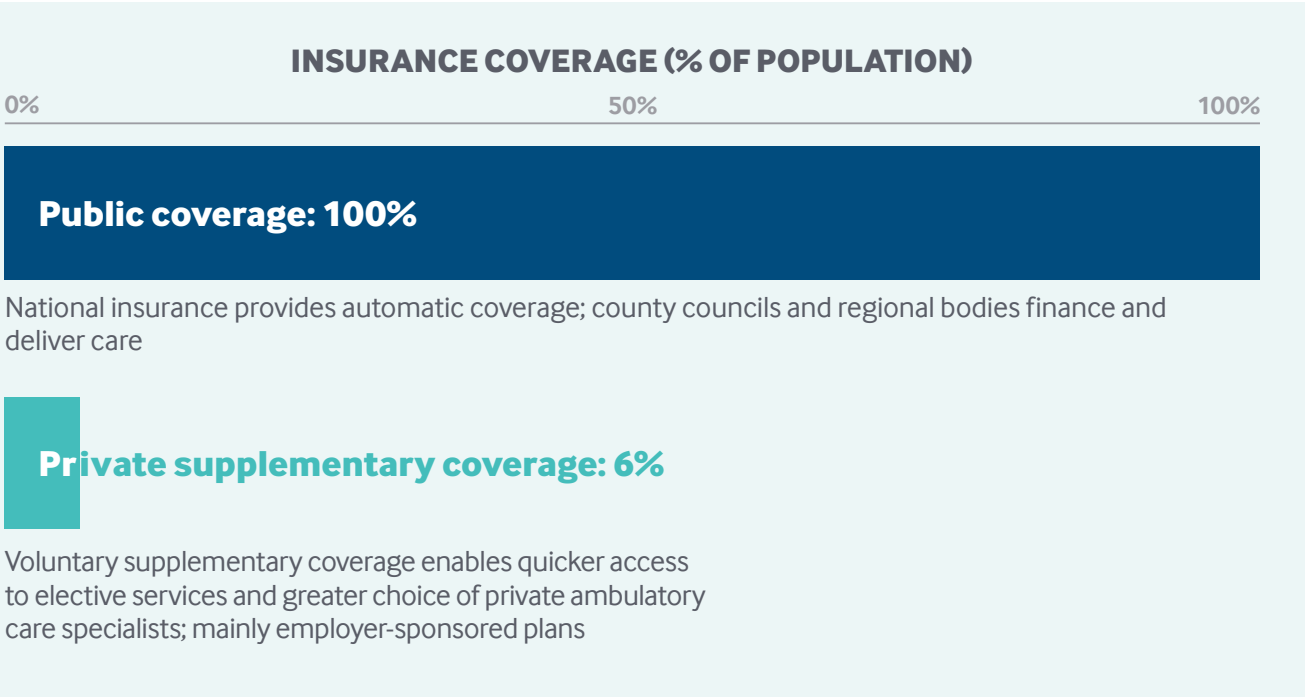
Source: Adapted by the author from A. Anell, A. H. Glenngård, and S. Merkur, "Sweden: Health System Review," *Health Systems in Transition,* vol. 14, no. 5, 2012, p. 19.

- The Medical Products Agency is the Swedish national authority responsible for the regulation and surveillance of the development, manufacture, and sale of drugs and other medicinal products.

Role of public health insurance: Health expenditures accounted for 10.9 percent of GDP in 2016. About 84 percent of this spending was publicly financed, with regions' expenditures amounting to almost 57 percent, municipalities' up to 25 percent, and the central government's to almost 2 percent.[2] In 2016, 88 percent of regions' total spending was on health care.[3] The regions and the municipalities levy proportional income taxes on their populations to help cover health care

services. In 2016, 70 percent of the regions' total revenues came from local taxes and 16 percent from subsidies and national government grants, which are financed by national income taxes and indirect taxes. General government grants are designed to redistribute resources among municipalities and regions based on need. Targeted government grants finance specific initiatives, such as reducing wait times.

Role of private health insurance: Private health insurance, in the form of supplementary coverage, accounts for less than 1 percent of health expenditures. It is purchased mainly by employers and is used primarily to guarantee quick access to an



ambulatory care specialist and to avoid wait lists for elective treatment. In 2017, 633,000 individuals had private insurance, representing roughly 13 percent of all employed individuals ages 16 to 64 years.[4]

Services covered: There is no defined benefit package. Because the responsibility for organizing and financing health care rests with the regions and municipalities, services vary to some extent throughout the country. Broadly, however, the publicly financed health system covers the following:

- Public health and preventive services
- Primary care, including maternity care
- Inpatient and outpatient specialized care
- Emergency care
- Inpatient and outpatient prescription drugs
- Mental health care
- Rehabilitation services, including physical therapy
- Disability support services, including durable medical equipment such as wheelchairs and hearing aids
- Patient transport support services
- Home care and long-term care, including nursing home care and hospice care
- Dental care and optometry for children and young people
- Adult dental care with limited subsidies.

Cost-sharing and out-of-pocket spending: In 2016, about 16 percent of all health expenditures were private; of these, 92 percent were out of pocket.[5] Most out-of-pocket spending is for drugs and dental care.[6]

The regions set copayment rates for outpatient visits and hospital stays, leading to some variation across the country (see table below). However, pharmaceutical and dental benefits are determined by the national government and apply to all residents.

Safety nets: In general, all social groups are entitled to the same benefits. Ceilings on out-of-pocket spending (see table below) apply to everyone, and the overall cap on user charges is not adjusted for income. Some targeted groups, such as

TYPICAL PATIENT COPAYMENTS AND SAFETY NETS

SERVICE	FEES PER ENCOUNTER/SERVICE[7]	MAXIMUM OUT-OF-POCKET COSTS PER YEAR (SAFETY NET)
Primary care visit	SEK 150–300 (USD 16–33)*	
Specialist consultation	SEK 200–400 (USD 22–44) without referral from primary care SEK 0–400 (USD 0–33) with referral from primary care	Maximum out-of-pocket for health care visits: SEK 1,100 (USD 120)
Hospitalization (per day or visit) including pharmaceuticals	SEK 50–100 (USD 5.5–11.0) per day (adults)	Exempt from copayments for outpatient visits: children/youth under age 20 and adults over age 85
Prescription drugs (outpatient)	Drugs covered by National Drug Benefits Scheme: Individuals pay full cost up to annual maximum of SEK 1,125 (USD 123), after which subsidy gradually increases to 100% Prescription drugs and medical products not reimbursed under the National Drug Benefits Scheme: Patients pay full price	Maximum out-of-pocket for outpatient drugs: SEK 2,250 (USD 246); children under age 18 exempt from copayments
Dental Care	Adults receive fixed annual subsidies of SEK 300–600 (USD 33–66) to help pay for preventive dental care, depending on age	Free dental care for children/youth under age 23 No cap on adult user charges for dental care

Source: SALAR (Swedish Association of Local Authorities and Regions), Patientavgifter i öppen hälso- och sjukvård år 2018.

*One region (Sörmland) does not charge for primary care visits.

children, adolescents, and the elderly, are exempt from user charges. In addition, preventive services, such as maternity care, immunizations, and cancer screenings, do not have copayments.

How is the delivery system organized and how are providers paid?

Physician education and workforce: Medical schools are public, and there is no tuition fee for medical education; however, the number of students accepted each year is limited.

Primary care: Primary care accounts for about 17 percent of all health expenditures,[8] and about 16 percent of all physicians work in this setting.[9]

There are about 1,200 primary care practices; 60 percent are owned by regions and the remainder are privately owned. Regions control the establishment of new private practices by regulating clinic hours, clinical competencies, and other organizational aspects and by regulating financial conditions for accreditation and payment. The right to establish a practice and be publicly reimbursed applies to all public and private providers fulfilling the conditions for accreditation.

Team-based primary care, comprising GPs, nurses, midwives, physiotherapists, and psychologists, is the main form of practice. There are an average of four to five GPs in a primary care practice.

District nurses, employed by municipalities, coordinate care for patients with chronic illness or complex needs, especially the elderly; they have limited prescribing authority. These nurses also participate in home care and regularly make home visits.

All provider fees at all levels of care are set by regions. Providers cannot bill above the fee schedule.

Primary care centers (public and private) are paid through a combination of payments:

- Fixed capitation for registered individuals (accounting for 60%–95% of total payment)
- Fee-for-service (accounting for 5%–38% of payment)
- Performance-related bonuses (0%–3% of payments) for achieving quality targets related to patient satisfaction, care coordination, compliance with evidence-based guidelines, and other metrics.

Public and private physicians (including GPs and hospital specialists), nurses, and other categories of health care staff at all levels of care are predominantly salaried employees. Primary care physicians in the centers are paid a salary, determined at the regional level or by private providers. There is a general shortage of physicians in primary care, especially in more remote locations. This leads to higher salaries in such areas to attract physicians.

While there is no formal gatekeeping function, general practitioners (GPs) or district nurses are usually the first point of contact for patients. People can choose to register with any public or private provider accredited by the local region; most individuals register with a practice instead of with a physician. Registration is not required to visit a practice. In primary care, there is competition among providers (public and private) to register patients, although providers cannot compete through pricing because the regions set fees.

There is no regulation prohibiting physicians (including specialists) and other staff who work in public hospitals or primary care practices from also seeing private patients outside the public hospital or primary care practice. Employers of health care professionals, however, may establish such rules for their employees.

Outpatient specialist care: Outpatient specialist care is provided at university and regional hospitals and in private clinics. In both cases, specialists are salaried employees (of hospitals and clinics). Patients are free to choose a specialist.

Public and private specialists are paid through a combination of global budgets and per-case payments based on diagnosis-related groups (DRGs), which are determined at the regional level. Price or volume ceilings and quality-related bonuses may also apply.

The average monthly salary for a physician specialist (including general medicine specialists working in primary care) was SEK 77,900 (USD 8,532) in 2018.[10] Regions set fee schedules, while salaries are determined by the regions and by private clinics in their role as employers.

Administrative mechanisms for direct patient payments to providers: Patients normally pay out-of-pocket fees up front for primary care and other outpatient visits, including specialty physician visits. In most cases, it is also possible for patients to pay later.

After-hours care: Primary care providers are required to provide after-hours care. Often, three to five primary care practices located close to each other collaborate to provide after-hours arrangements. Through their websites and phone services, providers advise registered patients where to go for care. Regions and regional bodies also provide information on how and where to seek care through their websites and a national phone line, with medical staff available all day to give treatment advice.

Staff providing primary care services after hours normally include GPs and nurses. The same patient copayments apply as during regular hours.

In addition, to reduce emergency care use at hospitals, urgent care centers in some areas are typically open 8 a.m. to 10 p.m.

Hospitals: There are seven university hospitals, all public, and about 70 public community hospitals owned by the regions. There are also six private hospitals, of which three are not-for-profit. Private hospitals include emergency, orthopedic, and surgery centers. All hospital staff are salaried employees.

Acute-care hospitals (seven university hospitals and two-thirds of the 70 region hospitals) provide full emergency services. Swedish counties are each grouped into six health care regions to facilitate cooperation among providers and to maintain a

high level of advanced medical care. Highly specialized care, often requiring the most advanced technical equipment, is concentrated in university hospitals to ensure high quality and greater efficiency and to create opportunities for development and research.

A mix of global budgets, DRGs, and/or performance-based methods is used to reimburse hospitals. The use of global budgets, set by regions, is most common. When DRGs are used, they constitute less than half of total payments. Performance-based payments related to meeting quality targets constitute less than 5 percent of total payments. Payments are traditionally based on historical (full) costs.

Mental health care: Mental health care is an integrated part of the health care system and is subject to the same legislation and user fees as other health care services. Specialized inpatient and outpatient psychiatric care, including that related to substance use disorders, is available to adults, children, and adolescents.

People with minor mental health problems are usually attended to in primary care settings, either by a GP or by a psychologist or psychotherapist. Patients with severe mental health problems are referred to specialized psychiatric care in hospitals.

Long-term care and social supports: Responsibility for the financing and organization of long-term care for the elderly and for the support of people with disabilities lies with the municipalities (financed through taxation). However, the regions are responsible for patients' routine health care. Older adults and disabled people incur a separate maximum copayment for services commissioned by the municipalities, which was SEK 1,772 (USD 194) per month in 2016.

The Social Services Act specifies that adults at all later stages of life have the right to receive public services and assistance, such as home care aids, home care, and meal deliveries. Eligibility for services and assistance is based on need, which is determined by care managers from the municipality together with the client and often a relative. Means-testing does not play a role.

End-of-life care is also included, either in the individual's home or in a nursing home or hospice. The Health and Medical Services Act and the Social Services Act regulate how the regions and the municipalities manage palliative care. The organization and quality of palliative care vary widely both between and within regions. Palliative-care units are located in hospitals and hospices. An alternative to palliative care in a hospital or hospice is advanced palliative home care.

There are both public and private nursing homes and home care providers. About 24 percent of all nursing home and 18 percent of all home care was privately provided in 2017,[11] although the percentage varies significantly among municipalities. Payment to private providers is usually contract-based, following a public tendering process.

In general, Sweden aims to have individuals stay in ordinary housing rather than in nursing homes. National policy promotes home assistance and home care over institutionalized care, with older people entitled to live in their homes for as long as possible. Municipalities can also reimburse informal caregivers, either directly (relative-care benefits) or by employing the informal caregiver (relative-care employment). Among adults with long-term care needs in 2017, 72 percent had their needs met through home care and 28 percent in institutions.[12]

What are the major strategies to ensure quality of care?

Regions are responsible for ensuring that health care providers deliver services of high quality and adhere to national therapeutic guidelines. Providers are evaluated for meeting quality targets associated with a pay-for-performance scheme or accreditation requirements. They are also assessed based on information from patient registries and national quality registries, patient satisfaction surveys, and dialogue meetings between providers and regions.

Concern for patient safety has increased during the past decade. Patient safety indicators are compared regionally by SALAR, and the results are publicly disseminated in many cases. Eight priority target areas for preventing adverse events have been specified[13]:

- Health care–associated urinary tract infections
- Central line infections
- Surgical site infections
- Falls and fall injuries
- Pressure ulcers

- Malnutrition
- Medication errors in health care transitions
- Drug-related complications.

Disease management programs, developed at the regional level, also encompass quality and patient safety targets and strategies.

To reduce unnecessary variation in clinical practice, there has been a trend toward development of regional guidelines. For example, the National Cancer Strategy was established in 2009, and six Regional Cancer Centers (RCCs) were formed in 2011. The RCCs' role is to contribute to more equitable, safe, and effective cancer care through regional and national collaboration.

More than 100 national quality registries are used for monitoring and evaluating quality among providers and for assessing treatment options and clinical practice. Registries store individualized data on diagnosis, treatment, and treatment outcomes in inpatient and outpatient care (including primary care) and nursing homes. The registries are funded by the central government and by the regions, are managed by specialist organizations, and are monitored annually by an executive committee.

Since 2006, the government has published annual performance comparisons and rankings of the regions' health care services, using data from the national quality registers, the National Health Care Barometer Survey, the National Waiting Time Survey, and the National Patient Surveys. Performance comparisons for specialty care, primary care, nursing homes, and home care are publicly released. The 2015 publication included 350 indicators organized into various categories, such as prevention, patient satisfaction, wait times, trust, access, surgical treatment, and drug treatment. In addition, some 100 indicators for hospitals are tracked, but without rankings. Statistics on patient experience and wait times in primary care are also made available online by SALAR (www.skl.se) to help guide people in their choice of provider.

What is being done to reduce disparities?

Sweden ranks in the top three among 11 high-income countries on measures related to health care equity.[14] The Health and Medical Services Act emphasizes equal access to services according to need and a vision of equal health for all, and the level of unmet need is very low in Sweden.[15] Disparities in access and health outcomes are measured primarily with regard to gender, income, and education by the National Board of Health and Welfare and the Public Health Agency.

Disparity-reduction approaches include programs to support behavioral changes and outpatient preventive programs targeting vulnerable groups. To prevent primary care providers from avoiding patients who have extensive needs, most regions allocate funds based on a formula that accounts for both overall illness (based on adjusted clinical groups) and registered individuals' socioeconomic conditions (measured through the Care Need Index).

Another health care disparity issue relates to unwarranted regional variation in wait times and access to different services. One way in which such inequalities are addressed is through evidence-based clinical guidelines and performance indicators set by the government, sometimes accompanied by targeted grants. Moreover, in 2005 (regulated in the Health and Medical Services Act since 2010 and the Patients Act since 2015), Sweden introduced a wait-time guarantee—the 0–7–90–90 rule—to improve and ensure equal access to services across the country:

- 0: zero delay, or instant contact with the health system for advice
- 7: seeing a general practitioner within seven days
- 90: seeing a specialist within 90 days
- 90: waiting no more than 90 days to receive treatment after being diagnosed.

What is being done to promote delivery system integration and care coordination?

The Swedish health system is highly integrated. The dividing of regional responsibility (for medical treatment) and municipal responsibility (for nursing and rehabilitation) requires coordination. Efforts to improve collaboration and develop

more integrated and accessible services are supported by targeted government grants. Since 2015, the targeted grants have focused on care coordination; they support action plans for improving coordination and collaboration at the regional level.

At the provider level, performance-related payment is commonly linked to quality targets related to care coordination and compliance with evidence-based clinical guidelines, particularly for care provided to elderly patients with multiple diagnoses.

In addition, since the 1990s, policies have focused on shifting inpatient care to outpatient and primary care settings and on concentrating highly specialized care in academic medical centers.

What is the status of electronic health records?

In 2016, the government developed a vision of Sweden as a world leader in e-health by 2025. The strategy involves four overarching tactics:

- coordination and communication among health care stakeholders
- development of common concepts in the field
- implementation of standards for health information exchange
- creation of national drug lists that assist health care professionals in efforts to improve patient safety.

High-quality information technology systems are deployed in hospitals and primary care practices, and adoption rates are high in these settings as well. However, the types of systems used vary by care setting and by region.

Patients age 16 and older can increasingly access their electronic medical records to view personal health data, read physician' notes, schedule appointments, and refill prescriptions. According to the Swedish eHealth Agency, 99 percent of all Swedish prescriptions were e-prescriptions in 2017.

To access their records, patients log in using a personal identification number (the same 10-digit number used for accessing all public services) and a personal electronic encryption code called BankID. The level of information available to patients varies to some extent across regions.

How are costs contained?

Regions and municipalities are required by law to set and balance annual budgets for their activities and to consider the cost-effectiveness of different treatment alternatives when organizing care. For prescription drugs, the central government and the regions form agreements, lasting a period of years, on the subsidy levels paid by the government to the councils.

The central government's Dental and Pharmaceutical Benefits Agency also employs value-based pricing for prescription drugs, determining reimbursement based on an assessment of health needs and cost-effectiveness. Some regions also use value-based pricing models for specialized care, such as knee replacements.

Because regions and municipalities own or finance most health care providers, they can undertake a variety of cost-control measures. For example, contracts between regions and private specialists are usually based on a tendering process in which costs constitute one of the variables used to evaluate providers. The funding of health services through global budgets, volume caps, capitation formulas, and contracts also contributes to cost control, as providers retain responsibility for meeting costs with funds received through those prospective payment mechanisms. In several counties, providers are also financially responsible for prescription costs.

What major innovations and reforms have recently been introduced?

Important policy areas that have been under scrutiny at both the local and the national level during the past few years include the quality and equity of care, wait times, coordination of care for the elderly, and investment in e-health.

The 2015 Patient Act sought to strengthen the rights of patients and encourage shared decision-making. It clarifies and expands providers' responsibilities in conveying information to patients, guarantees patients the right to a second opinion, and ensures choice of provider in outpatient specialty care. It also strengthens the wait-time guarantee by clarifying patients' right to seek care in any region.

Accurate reporting and monitoring to measure quality, equity, and efficiency remain important challenges in Swedish primary care and are a concern for policymakers. A new quality register for primary care was set up in 2017, coordinated by SALAR.

To improve the continuity and coordination of care, in 2014 the government launched a four-year national initiative for people with chronic diseases. Its three areas of focus are patient-centered care, evidence-based care, and prevention and early detection of disease. Regional implementation of various initiatives began in 2017–2018, among them, a team-based care program for frail elderly patients.

In the area of specialized care, there have been recent efforts to foster greater equity. The government has committed to providing SEK 500 million (USD 55 million) per year from 2015 to 2018 to reduce wait times in cancer care and to reduce regional disparities. The initiative has led to the development of standardized care processes and reduced wait times in some cancer areas, but not in all regions. The learnings from this work are being applied in additional areas in 2018.

General discussions about how governance, including reimbursement systems, can promote innovation and trust are also taking place. The government aims to promote governance models that put greater trust in public-sector professionals to provide high-quality care to citizens. In part, this approach may be a response to pushback on past reforms aimed at increasing competition and the monitoring of providers based on performance indicators.

REFERENCES

1. Health and Medical Services Act (Health Hälso- och sjukvårdslag) (2017).
2. Statistics Sweden, *Systems of Health Accounts (SHA) 2001–2016*, www.scb.se; accessed April 16, 2018.
3. Swedish Association of Local Authorities and Regions (SALAR), *Statistik inom hälso- och sjukvård samt regional utveckling: Verksamhet och ekonomi i landsting och regioner 2016* (SALAR, 2017).
4. Swedish Insurance Federation, http://www.svenskforsakring.se; accessed April 16, 2018.
5. Statistics Sweden, *Systems of Health Accounts (SHA) 2001–2016*, www.scb.se; accessed April 16, 2018.
6. A. Glenngård and S. Borg, *Can People Afford to Pay for Health Care? New Evidence on Financial Protection in Sweden* (WHO, Regional Office for Europe, 2019).
7. Please note that, throughout this profile, all figures in USD were converted from SEK at a rate of about SEK 9.13 per USD, the purchasing power parity conversion rate for GDP in 2017 reported by OECD (2018) for Sweden. Organisation for Economic Co-operation and Development (OECD), OECD.Stat. (2018), https://stats.oecd.org/Index.aspx?DataSetCode=SNA_TABLE4; accessed April 29, 2018.
8. Statistics Sweden, *Systems of Health Accounts (SHA) 2001–2016*, www.scb.se; accessed April 16, 2018.
9. Swedish Medical Association, *Läkarförbundets undersökning av primärvårdens läkarbemanning* (Sveriges läkarförbund).
10. Statistics Sweden, *Lönedatabasen*, www.scb.se; accessed August 3, 2018.
11. National Board of Health and Welfare, *Statistik om äldre och personer med funktionsnedsättning efter regiform* (National Board of Health and Welfare, 2017).
12. National Board of Health and Welfare, *Statistik om äldre och personer med funktionsnedsättning efter regiform* (National Board of Health and Welfare, 2017).
13. Swedish Association of Local Authorities and Regions (SALAR), *National Initiative for Improved Patient Safe*ty (SALAR, 2011).
14. E. C. Schneider et al., *Mirror, Mirror 2017: International Comparison Reflects Flaws and Opportunities for Better U.S. Health Care* (Commonwealth Fund, July 2017), https://www.commonwealthfund.org/publications/fund-reports/2017/jul/mirror-mirror-2017-international-comparison-reflects-flaws-and.
15. Glenngård and Borg, *Can People Afford to Pay for Health Care?*

The Swiss Health Care System

Isabelle Sturny
Swiss Health Observatory

Switzerland's universal health care system is highly decentralized, with the cantons, or states, playing a key role in its operation. The system is funded through enrollee premiums, taxes (mostly cantonal), social insurance contributions, and out-of-pocket payments. Residents are required to purchase insurance from private nonprofit insurers. Adults also pay yearly deductibles, in addition to coinsurance (with an annual cap) for all services. Coverage includes most physician visits, hospital care, pharmaceuticals, devices, home care, medical services in long-term care, and physiotherapy. Supplemental private insurance can be purchased for services not covered by mandatory health insurance, to secure greater choice of physicians, and to obtain better hospital accommodations.

How does universal health coverage work?

Historically, health insurance in Switzerland had been provided by many small private insurers. After several attempts to introduce a system of universal coverage, the federal government adopted the Health Insurance Law in 1994, based on a private insurance model. The law's objectives were to:

- strengthen equality by introducing universal coverage and subsidies for low-income households
- expand the benefit basket and ensure high standards of health services
- contain the growing costs of the health system.[1]

Since going into effect in 1996, health insurance coverage is close to 100 percent. Citizens are legally required to purchase insurance, and the cantons ensure compliance. Insurance policies typically apply to individuals, and separate coverage must be purchased for dependents. New residents must purchase a policy within three months of arriving in Switzerland, and coverage applies retroactively to the arrival date. Temporary nonresident visitors pay for care themselves and claim expenses from any insurance coverage they hold in their home countries. The absence of mandatory health insurance for undocumented immigrants remains an unsolved problem.

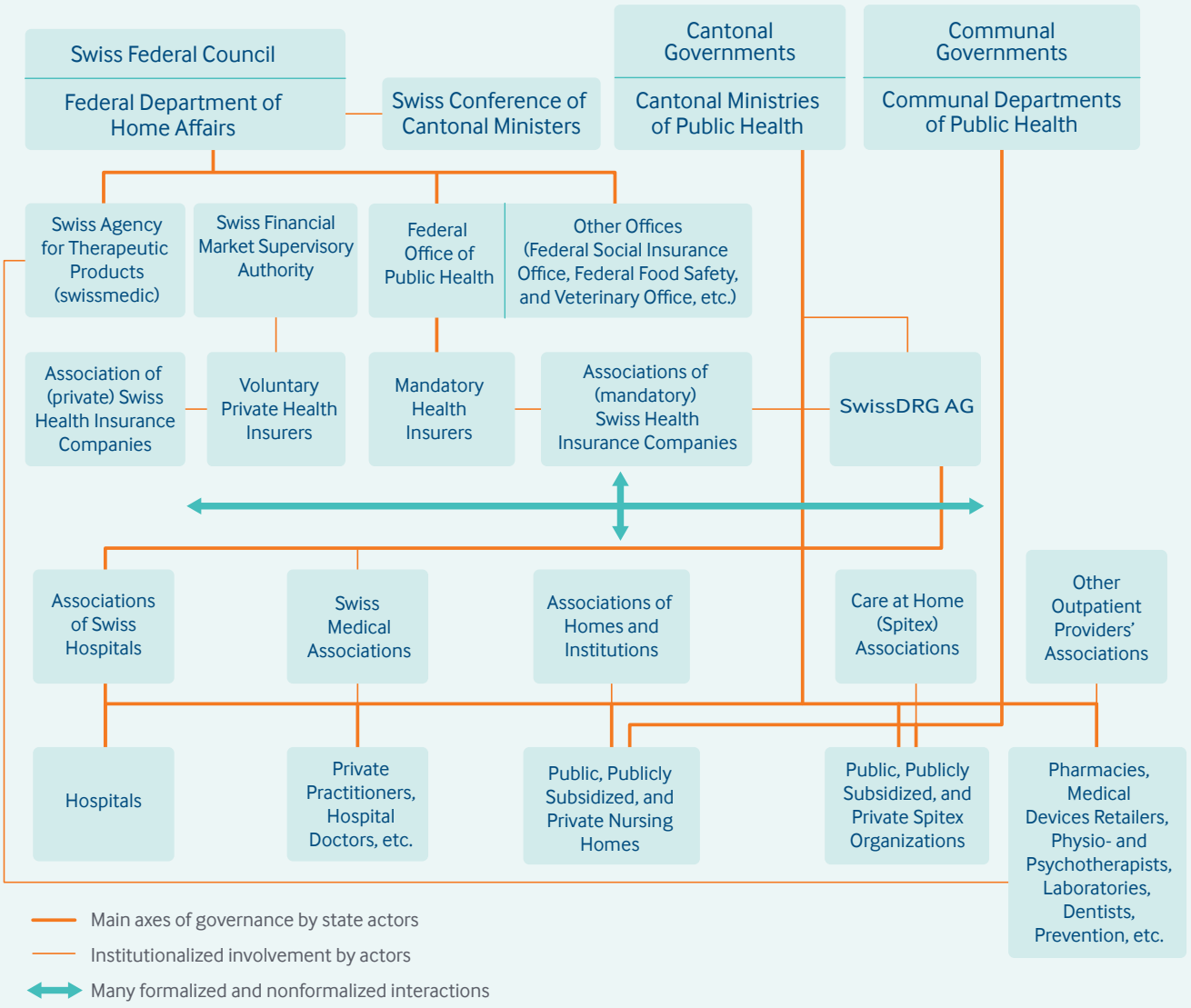
Role of government: Duties and responsibilities in the Swiss health care system are divided among the federal, cantonal, and municipal governments. Each of the 26 cantons has its own constitution and is responsible for licensing providers, coordinating hospital services, promoting health through disease prevention, and subsidizing institutions and individual premiums. The federal government regulates system financing, ensures the quality and safety of pharmaceuticals and medical devices, oversees public health initiatives, and promotes research and training. The municipalities are responsible mainly for organizing and providing long-term care (nursing home care and home care services) and other social support services for vulnerable groups.

Since health care is largely decentralized, the key entities for health system governance exist mainly at the cantonal level. Each canton has its own elected minister of public health; a coordinating political body, the Swiss Conference of Cantonal Health Ministers, plays an important role.

Other important health-related agencies include the following:

- The Federal Office of Public Health, which is the main national player, supervises the legal application of mandatory health insurance, authorizes statutory insurance premiums, governs statutory coverage (including health technology assessment), and determines the prices of pharmaceuticals. The agency is also responsible for national health strategies, including health promotion, disease prevention, and health equity.
- The Swiss Federal Department of Home Affairs formally defines the mandatory health insurance benefit basket by evaluating whether services are appropriate and cost-effective. It is supported in this task by the Federal Office of Public Health and by Swissmedic, the agency that authorizes and supervises therapeutic products.
- The nonprofit corporation SwissDRG AG is responsible for defining, developing, and adapting the national system of relative cost weights per case used for determining provider payment for inpatient services.
- Health Promotion Switzerland, a nonprofit organization, is legally charged with health promotion programs and provides public information on health.
- The Association of Swiss Patients and a national ombudsman for health insurance engage in patient advocacy.

ORGANIZATION OF THE HEALTH SYSTEM IN SWITZERLAND



Source: Adapted from Camenzind (2015).

Role of public health insurance: In 2016, total health expenditures represented 12.2 percent of Switzerland's GDP, or CHF 80.7 billion (USD 66.7).[2,3] Publicly financed health care accounts for 62.8 percent of health spending, or 7.7 percent of GDP. The public health insurance system has three streams of funding:

- Mandatory health insurance premiums accounted for 35.6 percent of total health spending in 2016.
- General taxes financed 17.3 percent of total health expenditures in 2016, with cantonal taxes accounting for 15.0 percent, municipal taxes for 1.8 percent, and federal taxes for 0.4 percent.
- Contributions to other social insurance schemes, including military, old-age, and disability insurance, made up 10.0 percent of spending in 2016.

Mandatory health insurance is offered by competing nonprofit insurers on cantonal exchanges. It is not sponsored by employers. The insurers are supervised by the Federal Office of Public Health.

The 56 insurers on the exchanges provide policies for three distinct age groups — children through age 18, young adults 19 to 25, and adults 26 and above — each at six different deductible levels. In addition to the standard coverage model (basic coverage with free choice of doctor), there are various alternatives that restrict provider choice: health maintenance

organizations (HMOs); family doctor models, which require an initial consultation with the family physician (gatekeeper) in the event of illness; and call-center models, under which patients call a consultation hotline prior to seeing a doctor. In 2016, 65.7 percent of those insured chose an alternative insurance plan.[4] Some health plans also offer accident coverage.

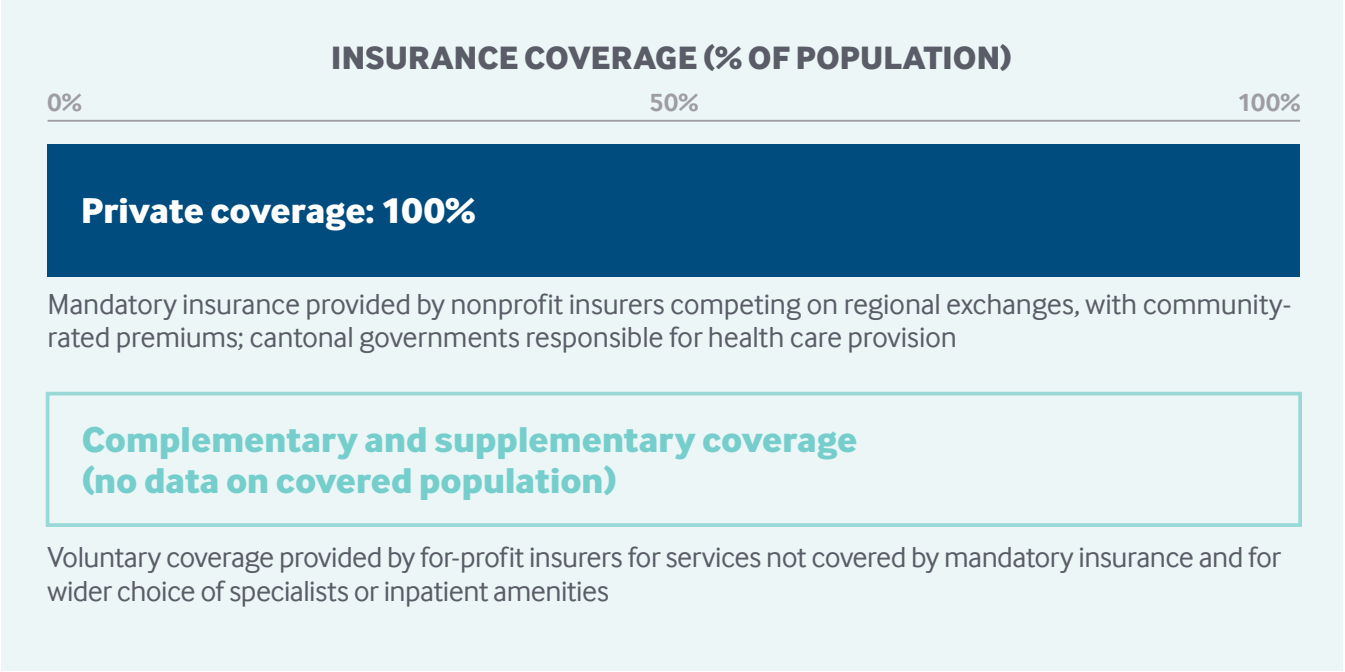
In 2018, the average annual premium across Switzerland was CHF 5,584 (USD 4,615). However, there can be significant variation in premiums among insurers and insurance plans. In 2018, the average annual cantonal premium ranged from CHF 4,248 (USD 3,511) to CHF 7,102 (USD 5,869) for adults with a standard insurance model, accident coverage, and the minimum deductible of CHF 300 (USD 248).[5]

Individuals pay premiums through the insurer of their choosing. Then funds are redistributed among insurers by a central fund, in accordance with a risk-equalization scheme that is adjusted for canton, age, gender, and major expenditures in the previous year, such as hospital or nursing home stays and pharmaceutical costs.

Role of private health insurance: Voluntary health insurance accounted for 6.7 percent of total expenditures in 2016. No data are available on the number of people covered by these plans. Residents use voluntary health coverage to pay for services not covered by mandatory health insurance and to ensure free choice of hospitals or doctors and preferred hospital accommodation.

Voluntary health insurance is regulated by the Swiss Financial Market Supervisory Authority. Insurers can vary benefit baskets and premiums and can refuse applicants based on medical history. Service prices are usually negotiated directly between insurers and providers.

Unlike statutory insurers, voluntary insurers are for-profit; an insurer will often have a nonprofit branch offering mandatory health insurance and a for-profit branch offering voluntary insurance. It is illegal for voluntary insurers to base voluntary insurance subscription decisions on health information obtained via basic health coverage, but this rule is not easily enforced. Employers do not offer voluntary insurance.



Services covered:

Mandatory health insurance covers the following:

- hospital inpatient services
- most general practitioner (GP) and specialist services
- an extensive list of pharmaceuticals and medical devices
- home care services (called Spitex)

- physiotherapy (if prescribed)
- some preventive measures, including selected vaccinations, selected general health examinations, and screenings for high-risk patients
- maternity care, including prenatal checkups, birth, postpartum care, and breastfeeding advice
- outpatient care for mental illness, if provided or delegated by physicians
- medically necessary long-term care
- hospice care if there is an underlying disease.

Durable medical equipment, such as wheelchairs, is not covered, and hearing aids are financed only if not covered by old-age and disability insurance. Dental care is largely excluded for adults, as are glasses and contact lenses for adults (unless medically necessary); however, these services and supplies are covered for children up to age 18.

Cost-sharing and out-of-pocket spending: Under mandatory health insurance, insurers are required to offer a minimum annual deductible of CHF 300 (USD 248) for adults and a zero deductible for children through the age of 18. Insured persons may opt for a higher deductible of up to CHF 2,500 (USD 2,066) for adults and CHF 600 (USD 496) for children, with a lower premium.

In 2016, about 54 percent of all insured persons opted for an insurance model with the minimum deductible of CHF 300/0 (USD 248/0), and about 46 percent chose a model with a higher deductible and a lower premium.[6]

In addition to deductibles, insured persons pay 10 percent coinsurance for all services (except for maternity care and some preventive services), with a cap of CHF 700 (USD 579) per year for adults and CHF 350 (USD 289) for children through age 18. For brand-name drugs that have a generic alternative, 20 percent coinsurance is charged instead of 10 percent. For hospital stays, there is an additional CHF 15 (USD 12) copayment per inpatient day.

Cost-sharing in Switzerland's mandatory health insurance program accounted for 5.3 percent of total health expenditures in 2016.[7]

Safety nets: Maternity care and some preventive services (mammograms and colorectal cancer screenings) are fully covered and are therefore exempt from deductibles, coinsurance, and copayments. Children or young adults in school (through age 25) are exempt from copayments for inpatient care.

The federal government and the cantons provide income-based subsidies to some individuals or households to cover mandatory health insurance premiums; income thresholds vary widely by canton.[8] Overall, 27.3 percent of residents in 2016 benefited from individual premium subsidies.[9] Municipalities or cantons cover mandatory health insurance expenses for social assistance beneficiaries and recipients of supplementary old-age and disability benefits. There is also a maximum user charge for prescription drugs and primary and specialty care — for adults, CHF 3,200 (USD 2,645. There is no maximum user charge for hospital care provided to adults (see table).

TYPICAL PATIENT COPAYMENTS AND SAFETY NETS

SERVICE	FEES PER ENCOUNTER/ SERVICE	MAXIMUM OUT-OF-POCKET COSTS PER YEAR	SAFETY NET
Primary care visit	Full cost of services up to deductible + 10% coinsurance Average costs in 2016: CHF 158 (USD 131)*	Adults: CHF 3,200 (USD 2,645) Children up to age 18: CHF 950 (USD 785)	Services exempt from user charges: Maternity care and some preventive services Children: • Insurers must offer children under age 18 a choice of zero-deductible plans • Exempt from copayments for hospital inpatient stays
Specialist consultation	Full cost of services up to deductible + 10% coinsurance Average costs in 2016: CHF 245 (USD 202)*		
Hospitalization (per day or visit) including pharmaceuticals	Full cost up to deductible + 10% coinsurance + copayment CHF 15 (USD 12) per day Average costs per inpatient day in 2016: CHF 1,584 (USD 1,309)**	Adults: No fixed maximum Children up to age 18: The maximum CHF 950 (USD 785) applies (see above)	
Prescription drugs (outpatient)	Full cost up to deductible + 10% coinsurance (20% if generic not used)	Adults: The maximum CHF 3,200 (USD 2,645) applies (see above) Children up to age 18: The maximum CHF 950 (USD 785) applies (see above)	

* Costs for mandatory health insurance services; SASIS AG – data pool/analysis Obsan.
** Swiss Federal Statistical Office (FSO), Krankenhausstatistik – Standardtabellen 2016 (FSO, 2017).

How is the delivery system organized and how are providers paid?

Physician education and workforce: Medical training takes place in public universities in a six-year program. After receiving the federal medical diploma, graduates enter the specialist training phase. The title of "specialist" is one of the conditions for practicing medicine in an independent medical practice.

Although increasing the national capacity for the training of health workers is a high priority of the Health2020 strategy,[10] entry restrictions may apply at certain universities. Training requirements are determined at the federal level. Tuition fees vary by the university chosen and range between CHF 1,000 (USD 826) and CHF 1,700 (USD 1,405) for Swiss students. Some cantons offer scholarships to help cover tuition fees.

The responsibility for ensuring an adequate supply of medical providers lies with the cantons.

Primary care: Registering with a GP is not required, and most people generally have free choice among self-employed, private GPs, except those enrolled in managed-care plans. In 2017, 42.9 percent of doctors in the outpatient sector were classified as GPs (including pediatricians). While 53.7 percent of physicians (GPs and specialists) were in solo practice, the remainder were in practices with an average of 4.2 physicians.[11] The median number of patients per GP practice was 1,779 in 2015.[12]

Primary (and specialist) care tends to be physician-centered, with nurses and other health professionals playing a relatively small role. Regional medical networks with shared resources and coordination between all stakeholders are becoming more common.

There are no specific financial incentives for GPs to take care of chronically ill patients, and no concrete reform efforts are under way to engage GPs in bundled payments for patients with a chronic illness, such as diabetes. Apart from some managed-care plans in which physician groups are paid through capitation, most GPs are paid according to a national fee-for-service scale, called TARMED, which was introduced in 2004. TARMED fees are negotiated annually between the health insurers' associations and cantonal provider associations or may be set by cantonal government if the parties cannot agree. Billing above the fee schedule is not permitted.

The median income of primary care doctors was CHF 236,885 (USD 195,772) for independent physicians and CHF 155,752 (USD 128,721) for employed physicians in 2014; these were lower than the average median income of all specialists.[13]

Outpatient specialist care: In the outpatient sector, 57.1 percent of doctors in private practices were classified as specialists in 2017; they are mostly self-employed.[14] Residents have free access (without referral) to specialists unless enrolled in a managed-care plan with gatekeeping.

Like GPs, specialists are paid fee for service in accordance with TARMED and cannot bill above the fee schedule. There are also no incentive payments for specialists.

Specialist practices tend to be concentrated in urban areas and within proximity of acute-care hospitals. The Swiss system allows specialists to see patients with private insurance as well as mandatory insurance.

Administrative mechanisms for direct patient payments to providers: Mandatory health insurance allows different methods of payment: Providers can invoice the patient, who makes the initial payment and claims reimbursement from the insurer retrospectively. Alternatively, providers can bill the insurer directly for the entire sum. The insurer then bills the patient for any coinsurance or copayments owed.

After-hours care: The cantons are responsible for after-hours care. They delegate the services (with fees set by TARMED) to cantonal doctors' associations, which organize urgent-care networks in collaboration with their affiliated doctors. Swiss physicians are not statutorily required to provide after-hours care through these networks.

The networks can include ambulance and rescue services, hospital emergency services, walk-in clinics (hospital-based or stand-alone), and telephone advice lines that are run or contracted by insurers. These services are mostly available 24/7. Staffing patterns and the use of nurse triage in these networks vary between localities.

There are no formal processes for the exchange of information between these services and GPs' offices, as people are not required to register.

Hospitals: In 2016, there were 283 hospitals (102 general and 181 specialty hospitals), with a total of 38,058 beds.[15] Hospitals are publicly or privately owned. Hospital care represented one-third (35.3%) of total health expenditures in 2016.

Hospitals receive at least 55 percent of their funding from cantons.[16,17] The rest is covered by mandatory health insurance and by coinsurance and copayments from patients. Services covered by mandatory health insurance are billed through the national diagnosis-related group (DRG) payment system. There are no pay-for-performance initiatives.

The cantons are responsible for hospital planning and are legally bound to coordinate plans with other cantons. Since 2012, patients have been free to obtain care in any canton. Remuneration mechanisms depend on insurance contracts; consequently, fee-for-service for inpatient services not covered under mandatory health insurance is still possible.

Hospital-based physicians are normally paid a salary, and public-hospital physicians can receive extra payments for seeing privately insured patients.

Mental health care: Care for mental illnesses is covered by mandatory health insurance if provided by certified physicians, including psychiatrists. The services of nonphysician professionals, such as psychotherapy provided by psychologists, are covered only if prescribed by a qualified medical doctor and provided in his or her practice.

Psychiatric hospitals normally provide a full range of services, such as psychiatric diagnostics and treatment, psychotherapy, pharmaceutical treatment, and forensic services. Clinics are most commonly specialized in specific conditions.

There is also a wide range of socio-psychiatric facilities and day care institutions that are run and funded mainly by the cantons. Often, the socio-psychiatric facilities and day care institutions offer the same services as the clinics, but normally treat patients with less-acute symptoms.

Psychiatric care is not systematically integrated into primary care. Some GPs provide mental health services.

Long-term care and social supports: Some long-term care services are covered under mandatory health insurance. Inpatient care is provided in nursing homes and institutions for disabled and chronically ill persons. Patients receive outpatient home care through specialized organizations.

Coverage for palliative care provided in hospitals, in nursing homes, in hospices, or at home is similar to coverage for acute services in these provider settings. Hospice care is covered as long as there is an underlying disease.

There is no provision of individual or personal budgets for patients to organize their own services, nor is there financial support at the national level for informal hired help or family caregivers.

For services in nursing homes and institutions for disabled and chronically ill persons, mandatory health insurance pays a contribution to cover care-related, medically necessary costs; the patient pays at most 20 percent of care-related costs, and the remaining care-related costs are financed by the canton or the municipality.

Long-term inpatient care costs represented 16.1 percent of total health expenditures in 2016. Thirty-six percent of these costs were paid by private households, 24 percent by government subsidies, 22 percent by old-age and disability benefits, and 18 percent by mandatory health insurance and other social insurances.

Of the 1,570 nursing homes in operation in 2016, 27.5 percent were state-operated and state-funded, 27.5 percent were privately operated with public subsidies, and 45 percent were exclusively private.[18] In 2016, 56 of every 1,000 people over age 65 were in nursing homes.

Home care providers (Spitex) represented 1.7 percent of total health expenditures in 2016. More than half (57.8%) of these costs are financed by mandatory health insurance and the other social insurances. The insurers limit their contributions to medically necessary health care at home. Government subsidies made up roughly one-third of total Spitex spending (29.4%). The rest (12.8%), devoted mainly to support and household services, was typically paid out-of-pocket or covered by old-age and disability benefits, by voluntary health insurance, or by other private funds.[19] In 2016, 31 percent of Spitex providers were subsidized nonprofit organizations, 20 percent were nonsubsidized for-profit companies, and 49 percent were individual health care workers.[20]

What are the major strategies to ensure quality of care?

Providers must be licensed to practice medicine and are required to meet educational and regulatory standards; continuing medical education for doctors is compulsory. The Swiss Institute for Continuing Medical Education is responsible for accreditation.

Professional self-regulation has been the traditional approach to quality improvement. This is increasingly being challenged. Local quality initiatives, often at the provider level, include the development of clinical pathways, medical peer groups, and consensus guidelines. However, there are no explicit financial incentives for providers to meet quality targets.

Increasing the quality of care is a priority of the federal Health2020 initiative. The strategy includes the implementation of a national network for quality and national quality programs in fields like medication safety and hospital infections.[21]

In 2008, the Swiss Inpatient Quality Indicators were introduced to monitor and evaluate the quality of care provided by acute-care hospitals. In addition, the National Association for Quality Improvement in Hospitals and Clinics publishes quality indicators for hospital inpatient care based on registries or patient satisfaction surveys. Some registries are the result of private initiatives; others, such as the cantonal cancer registries, are organized by the cantons. There are currently no publicly available data regarding physician or nursing home performance.

Since the association Smarter Medicine – Choosing Wisely Switzerland was founded in 2017, several medical societies have published top-five lists of treatments that are unnecessary and should therefore no longer be performed or reimbursed.

What is being done to reduce disparities?

The Swiss Federal Council's national Health2020 strategy explicitly calls for improving health opportunities for the most vulnerable population groups, such as children, people with low incomes or poor educational backgrounds, the elderly, and immigrants.[22] The aim is to facilitate easier access to necessary health care services.

Toward this purpose, the Federal Office of Public Health supports various initiatives to strengthen the health literacy of disadvantaged people and the competence of health professionals. From 2012 to 2017, these efforts focused mainly on the migrant population; today, the programs are broader in scope.

Starting in 2018, the National Strategy for the Prevention of Non-communicable Diseases and the National Strategy on Addiction and Mental Health have focused on health equity.[23] In addition, health and health access variations (by region and socioeconomic characteristics) are measured and reported publicly by the Swiss Health Survey every five years.[24]

What is being done to promote delivery system integration and care coordination?

Care coordination is an issue, particularly in light of a projected future shortage of health professionals and the need to improve efficiency to increase capacity. The national Health2020 strategy states that integrated health care models need to be supported, especially for patient groups that use many different and complex health care services.

To improve coordination, networks of experts are addressing important challenges such as palliative care, dementia, noncommunicable diseases, and mental health. They are designing pilot projects aimed at encouraging different types of health professionals to work together. In addition, the Forum for Managed Care awards a prize every year to promote innovative cross-sector networking projects in the Swiss health care sector.

The Federal Office of Public Health is also working on improving the framework for coordinated care, mainly in the areas of finance, education, and electronic health records (EHRs). The *National Health Report 2015* discusses a growing number of case management programs for chronically ill patients, but pooled funding streams do not yet exist.[25]

What is the status of electronic health records?

In June 2015, a law addressing a national EHR was adopted; it came into effect in 2017. By spring 2020, an EHR with unique identifiers will be rolled out in all regions and should increase care coordination, quality of treatment, patient safety, and efficiency in the health care system. EHealth Suisse, a joint initiative of the federal and cantonal governments, is coordinating the introduction of the EHR.

The program is voluntary; insured persons are free to opt in to the EHR and to decide who is allowed to have access to specific details of their treatment-related information. The records are being stored in decentralized form.

Providers will have to take part in certified communities (organizational units of health specialists and their institutions) to be able to read the records. While ambulatory-care providers are not obliged to join such communities, hospitals and long-term care institutions are legally bound to join and to offer their services using the EHR.

The uptake of the EHR in primary care is still in its early stages. Forty percent of physicians and outpatient centers handle their medical records exclusively on paper,and there are ongoing discussions about incentives for physicians to adopt new technologies.[26] Hospitals are generally more technologically advanced; some have merged their internal clinical systems with external providers. However, the extent of this integration varies greatly among hospitals and among cantons.

How are costs contained?

Switzerland's health care costs are the second-highest in the world. The Swiss Federal Department of Home Affairs postulated in 2013 that the costs of providing mandatory benefits in the health system could be reduced by up to 20 percent.[27] The Health2020 strategy lists possible cost-reducing measures, including:

- further flat-rate remuneration mechanisms, such as capitation
- revision of existing fee schedules to eliminate existing incentives for expensive and unnecessary services
- the concentration of highly specialized medicine for greater efficiency
- improvements in quality of treatment through use of more-experienced provider teams.

In 2012, DRGs were introduced to contain hospital inpatient costs. In addition, as of January 2019, certain hospital treatments must be provided in an outpatient setting in cases where patients will not be put at risk.

Inpatient capacity is subject to cantonal planning to prevent overcapacity. To limit the number of new physicians and to control escalating costs, a temporary ban on setting up new outpatient practices has been in place on and off since 2002 and is in force until 2021. But, given concerns over the supply of primary care physicians, particularly in rural areas, the federal government adopted a constitutional article in 2014 aimed at strengthening primary care.

To control pharmaceutical costs, coverage decisions on all new medicines are subject to an evaluation of their effectiveness and cost. Efforts are being made to reassess the prices of one-third of existing drugs every year. Depending on national market volume, generics must be sold for 20 percent to 50 percent less than the original brand. In addition, consumers pay higher coinsurance for brand-name drugs if generics exist. Pharmacists are reimbursed flat amounts for prescriptions, so they have no financial incentive to dispense more-expensive drugs.

In 2018, the Federal Office of Public Health launched a cost-containment program that places responsibility for reducing expenses on all health care actors. The first package of measures, nine in all, was adopted in 2019 and features improved cost-control and tariff schemes and a reference price system for pharmaceuticals. In 2020, a second package of initiatives is anticipated to increase cost transparency and improve coordinated care.

What major innovations and reforms have recently been introduced?

As discussed throughout this profile, the Health2020 strategy outlines national priorities, objectives, and 36 different measures aimed at:

- improving the quality of life
- promoting equal opportunity and self-responsibility
- ensuring and enhancing the quality of care
- creating more transparency, better governance, and closer coordination.

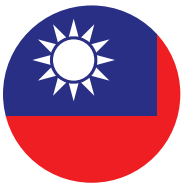
Recent reforms focus mainly on cost containment (see above).

The author would like to acknowledge Paul Camenzind and David Squires as contributors to earlier versions of this profile.[28]

REFERENCES

1. Swiss Federal Council (SFC), *Botschaft über die Revision der Krankenversicherung* (SFC, 1991).
2. Please note that, throughout this profile, all figures in U.S. dollars (USD) were converted from Swiss francs (CHF) at a rate of CHF1.21 per USD, the purchasing power parity conversion rate for GDP in 2017 reported by OECD for Switzerland: Organisation for Economic Co-operation and Development, *OECD Health Statistics 2017*, http://www.oecd.org/els/health-systems/health-data.htm; accessed April 26, 2018.
3. Swiss Federal Statistical Office (FSO), *Costs and Financing of the Health Care System 2016: Provisional Data* (FSO, 2018).
4. SASIS AG, Datenpool 2016 (SASIS AG, 2018).
5. Swiss Federal Office of Public Health (FOPH), *Statistik der obligatorischen Krankenversicherung 2016* (FOPH, 2018).
6. SASIS AG, Datenpool 2016.
7. Swiss Federal Statistical Office (FSO), *Costs and Financing of the Health Care System 2016* (FSO, 2018). Provisional data; model revised in 2017.
8. Swiss Conference of Cantonal Health Ministers.
9. Swiss Federal Office of Public Health (FOPH), *Statistik der obligatorischen Krankenversicherung 2016* (FOPH, 2018).
10. Swiss Federal Department of Home Affairs (FDHA), *The Federal Council's Health-Policy Priorities* (FDHA, 2013), https://www.bag.admin.ch/dam/bag/en/dokumente/nat-gesundheitsstrategien/gesundheit2020/g2020/bericht-gesundheit2020.pdf.download.pdf/report-health2020.pdf; accessed April 26, 2018.
11. S. Hostettler and E. Kraft, FMH-Ärztestatistik 2017 – aktuelle Zahlen, *Schweizerische Ärztezeitung 2018* 99 (13–14): 408–13.
12. Swiss Federal Statistical Office (FSO), *Arztpraxen und ambulante Zentren 2015* (FSO, 2018).
13. K. Künzi and M. Morger, *Einkommen, OKP-Leistungen und Beschäftigungssituation der Ärzteschaft 2009–2014* (Aug. 2018).
14. Swiss Medical Association (FMH), FMH-Ärztestatistik 2017 (FMH, 2018).
15. Swiss Federal Statistical Office (FSO), *Krankenhausstatistik—Standardtabellen 2016* (FSO, 2017).
16. These include private hospitals that receive public subsidies if the cantonal governments have need of their services to guarantee a sufficient supply for the population.
17. Swiss Conference of Cantonal Health Ministers.
18. Swiss Federal Statistical Office (FSO), *Statistik der sozialmedizinischen Institutionen—Standardtabellen 2016* (FSO, 2017).
19. Swiss Federal Statistical Office, *Costs and Financing of the Health Care System 2016*.
20. Swiss Federal Statistical Office (FSO), *Statistik der Hilfe und Pflege zu Hause—Spitex-Statistik 2016* (FSO, 2017).
21. Swiss Federal Council (SFC), "Mehr Patientensicherheit dank nationalen Qualitätsprogrammen," press release, Dec. 7, 2015, https://www.admin.ch/gov/de/start/dokumentation/medienmitteilungen.msg-id-59775.html.
22. Swiss Federal Department of Home Affairs (FDHA), *The Federal Council's Health-Policy Priorities*.
23. Swiss Federal Office of Public Health (FOPH), *Health equity—Facts and Figures for Switzerland* (FOPH, 2018).
24. Swiss Federal Statistical Office (FSO), *Schweizerische Gesundheitsbefragung—Standardtabellen 2017* (FSO, 2018).
25. Swiss Health Observatory (Obsan), *National Health Report 2015* (Hogrefe, 2015).
26. Swiss Federal Statistical Office (FSO), *Arztpraxen und ambulante Zentren 2015* (FSO, 2018).
27. Swiss Federal Department of Home Affairs (FDHA), *The Federal Council's Health-Policy Priorities* (2013).
28. P. Camenzind, "The Swiss Health Care System, 2015," in *International Profiles of Health Care Systems, 2015,* eds. E. Mossialos, M. Wenzl, R. Osborn, and D. Sarnak (Commonwealth Fund, 2016).

The Taiwanese Health Care System



Tsung-Mei Cheng
Princeton University

Taiwan's national health insurance (NHI) provides universal, mandatory coverage. The single-payer system is funded primarily through payroll-based premiums, although the government provides generous premium subsidies for low-income households, civil servants, and others. Health care services are provided mostly by contracted private providers. Covered services include preventive, primary, specialist, hospital, and mental health services. Long-term care, a more recent addition, is provided separately. Out-of-pocket costs include copayments for outpatient care and prescription drugs and coinsurance for hospital stays. Private health insurance consists mostly of disease-specific cash indemnity policies.

How does universal health coverage work?

Taiwan's NHI system was implemented in 1995. Before then, Taiwan had had more than 10 public insurance schemes, each covering a particular group, such as government employees, farmers, and low-income households. These programs covered 59 percent of the population.[1]

In 1986, Taiwan's government proposed moving to a universal NHI program. The planning process involved studying health insurance systems abroad, borrowing parts from systems of other countries and adapting them to suit Taiwan's national conditions. On the recommendation of former government adviser Uwe Reinhardt, the late Princeton University economist, Taiwan's government established a single-payer system, which merged Taiwan's then-existing public insurance schemes.[2] Reinhardt's recommendation was based on three principles:

- Equity in both access and benefits
- Effective and egalitarian cost control
- Administrative simplicity to help the public understand the system.

The NHI Act became law in July 1994 and implemented rapidly in 1995.[3] NHI is a government-run social health insurance program that provides equitable medical and health care services to all in case of illness, injury, and childbirth. Enrollment in NHI is mandatory for all citizens and for foreigners legally residing in Taiwan for longer than six months. Virtually all residents are enrolled.

Role of government: The NHI program is administered by the National Health Insurance Administration (NHIA), which falls under the Ministry of Health and Welfare (MoHW). The NHIA is supported by six regional offices connected by a health information infrastructure. Local and municipal governments play little to no role in financing health care.

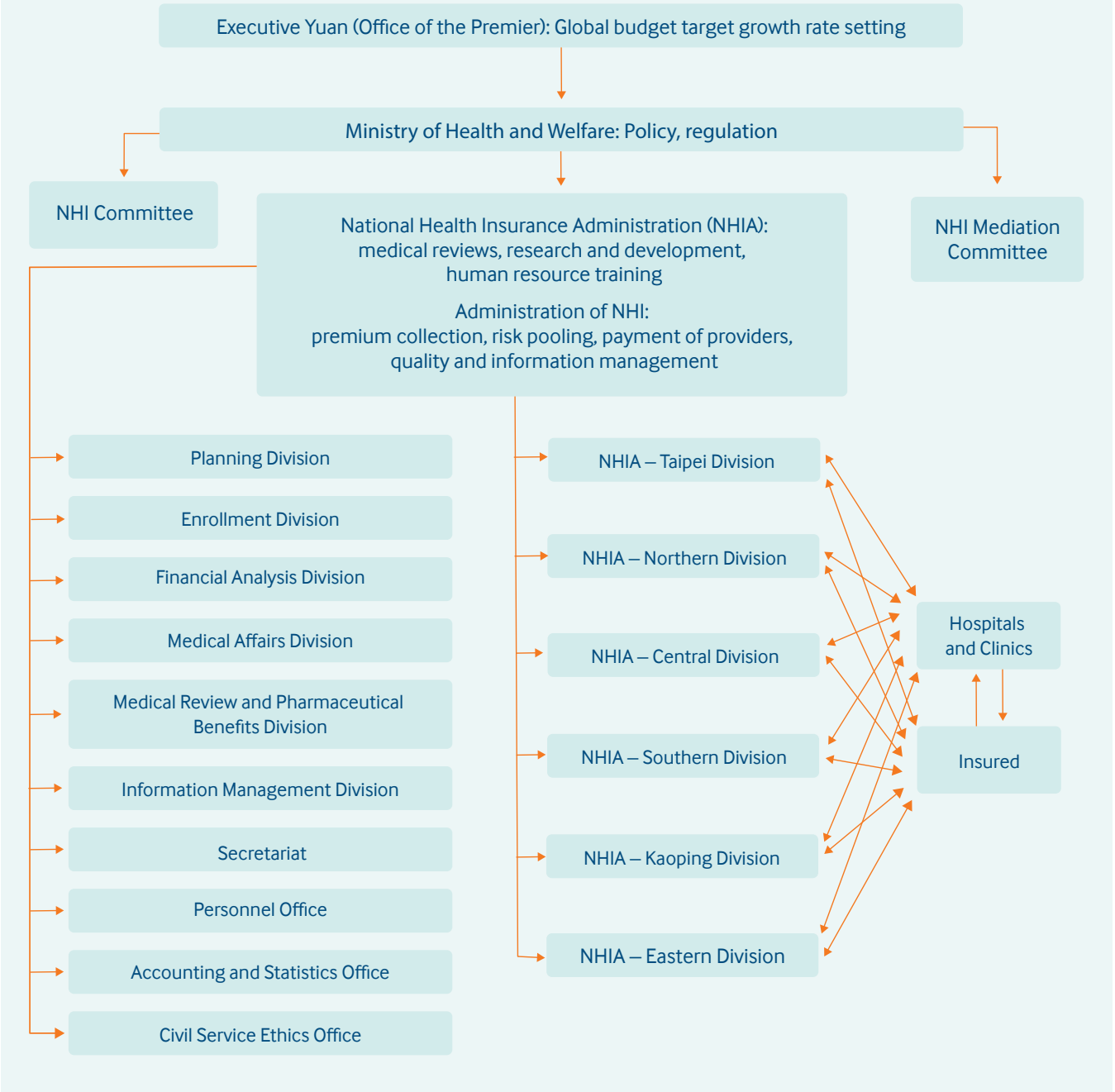
The bulk of NHI-covered services are delivered through a predominantly private delivery system, although some hospitals are owned and operated by municipal governments.

Because Taiwan has a single-payer health system, governance is fairly simple and straightforward. The MoHW, which sets policy, determines how much the NHI global budget should grow from year to year (subject to approval by the premier's office) — a months-long process involving multistakeholder negotiations.

The NHIA oversees and administers NHI. The NHIA's main tasks include collecting premiums, risk-pooling, and paying providers, as well as oversight of health services utilization, expenditures, and quality. The NHIA is also responsible for coverage decisions (based on cost-effectiveness analyses of new drugs and treatments), provider fee–setting and fee schedule adjustments, and cost containment. In addition, the agency is charged with identifying new funding sources (such as higher tobacco taxes) and administering a sectoral global budget system.

Parliament plays an important watchdog role in all NHI matters. In addition to its role in negotiating any new health legislation, it must pass an amendment to the NHI Act for any premium rate increases above 6 percent.

ORGANIZATION OF THE HEALTH SYSTEM IN TAIWAN



Role of public health insurance: Taiwan's national health expenditures totaled 6.4 percent of GDP in 2017, of which NHI accounted for 53.7 percent, representing approximately 3.4 percent of GDP.[4]

Taiwan's NHI is a predominantly premium-based social health insurance system. As of 2018, 81 percent of the system's regular premium revenues are derived in roughly equal measure from individuals, employers, and the government. The balance of revenues comes from supplementary premiums levied on nonpayroll income, such as large bonuses, rent, interest, dividends, professional fees, and income from second and third jobs, as well as additional government premium subsidies, tobacco taxes, and taxes on lottery gains.[5]

Payroll-based premium payments are made monthly and are calculated as follows:

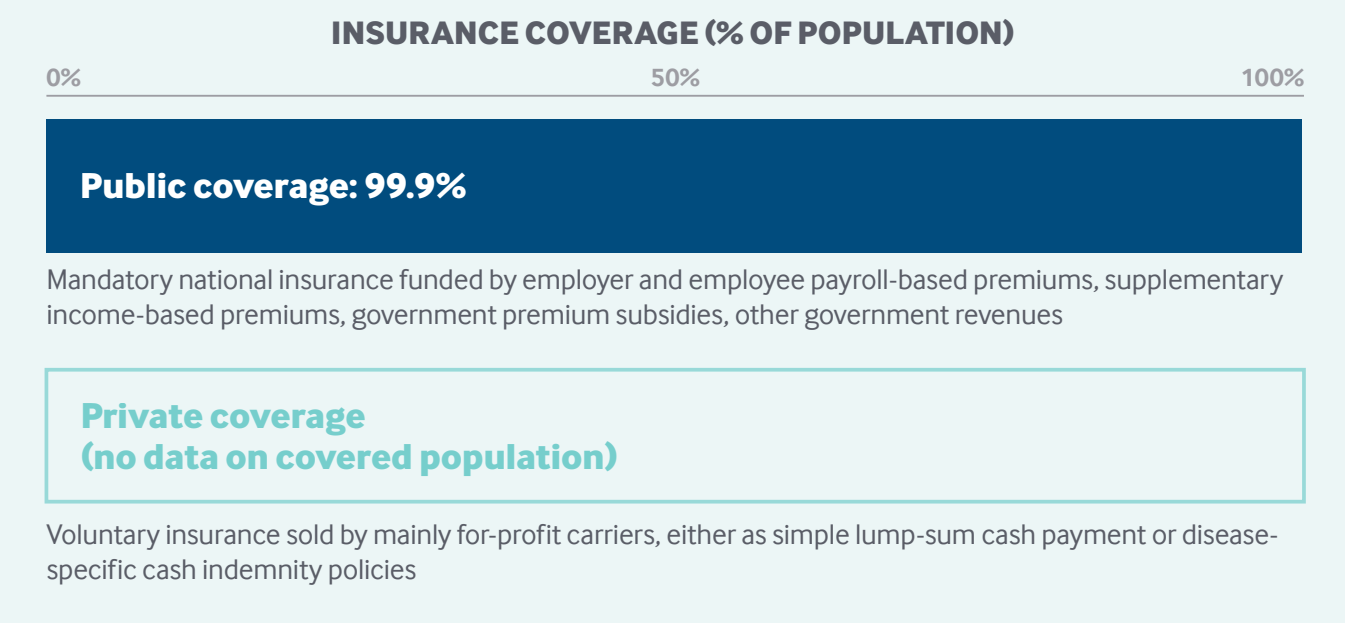
Salary Basis × Standard Premium (4.69% of payroll × Contribution Ratio × (1 + Number of Dependents))

The contribution ratio is based on the insured's "population category status," which is determined by an individual's job and by socioeconomic status. For example, employees of "public or privately owned enterprises and organizations" belong to Population Category 1. Their contribution rate is 30 percent of their salary or wage. Of the remainder, 60 percent is paid by their employer and 10 percent by government.

Premium contributions are capped at four members per household (the insured plus three dependents). Any additional household members are covered for free. Both caps and thresholds apply for payroll-based and supplemental premiums.

Role of private health insurance: Private health insurance policies are offered by private for-profit insurers, often as riders to nonmedical policies, such as life or car insurance. These do not cover medical services already covered by NHI, nor do they buy faster access to, or choice of, specialists. Instead, such policies offer disease-specific cash indemnity provisions. Policyholders can use the cash for private hospital rooms or devices, such as drug-eluting stents, not covered by NHI.

As a component of total health expenditures, private coverage is growing. (Precise statistics on private coverage are unavailable.) Many Taiwanese view these policies as savings vehicles.



Services covered: NHI benefits are uniform and comprehensive. Covered benefits include:

- Inpatient and outpatient care (both primary and specialty care)
- Prescription drugs
- Dental care (excluding orthodontics and prosthodontics)
- Traditional Chinese medicine
- Renal dialysis
- Maternity care
- Child delivery
- Physical rehabilitation
- Home care
- Chronic mental health care
- Preventive care, including adult health checkups, cancer screenings, baby and child health care checkups, and childhood immunizations through age 6.

NHI does not cover eyeglasses or visual acuity tests, nor does it cover durable medical equipment such as wheelchairs and hearing aids. It does, however, cover costly cochlear implants for children. Those who need wheelchairs or artificial limbs may apply for government subsidies under the Welfare Law for the Handicapped; veterans who need hearing aids or artificial limbs may receive them free of charge at veterans' hospitals.[6]

Cost-sharing and out-of-pocket spending: The NHIA mandates copayments for physician visits and prescription drugs, as well as coinsurance for inpatient care, subject to limits and exemptions. There are no annual or quarterly deductibles that must be met.

Copayments for outpatient specialist care range from TWD 50 (USD 1.65) to TWD 170 (USD 5.61) when the patient has a referral from a physician, and TWD 50 to TWD 420 (USD 13.86) without a referral.[7,8]

Copayments for outpatient prescription drugs covered under NHI are capped at TWD 200 (USD 6. 6) per outpatient visit, regardless of how many drugs are prescribed during that visit. There is no annual cap on drug copayments.

Coinsurance for inpatient care varies by length of stay and type of bed (acute or chronic). For example, the coinsurance rate for an inpatient stay of less than 30 days is 5 percent for chronic beds, and 10 percent for acute beds.[9] In 2018, the cap on coinsurance per episode of stay was TWD 38,000 (USD 1,254). For any additional inpatient stays for the same illness or condition, the same cap of TWD 38,000 per stay applies, up to an annual ceiling of TWD 64,000 (USD 2,112) for that particular illness or condition.

Under NHI, all preventive services are free, such as prenatal care, well-baby checkups, Pap smears, breast cancer screenings, adult health checkups, and immunizations. However, clinics and hospitals that deliver such services charge patients a small registration fee.[10]

In 2016, out-of-pocket health care spending, as officially reported, accounted for 34 percent of total national health expenditures.[11]However, in its definition of out-of-pocket spending, Taiwan includes items not counted by the Organisation for Economic Co-operation and Development (OECD), such as infant formula, baby diapers, dietary supplements, health foods, Chinese herbal medicine, private hospital rooms, cosmetic surgery, and high-tech surgical procedures.

According to a former NHIA director-general, out-of-pocket spending associated with *necessary* health care, including medical care, dental care, and prescription drugs, amounted to 12.1 percent of Taiwan's national health expenditures in 2012, a figure more in line with the OECD norm.[12]

Safety nets: In addition to the copayment and coinsurance caps outlined above, the government provides full (100%) premium subsidies for low-income households (1.26% percent of the population in 2018), military personnel, veterans and their dependents, and convicts. The last three groups accounted for 0.48 percent of the population in 2018.

In addition, the government funds varying premium subsidies to other population groups:

- Civil servants, volunteer servicemen, holders of public office, dependents of veterans, and members of farmer, fisherman, and irrigation associations receive premium subsidies of 70 percent.
- Union members, foreign crew members, and nonworking or retired individuals receive premium subsidies of 40 percent.
- Private school teachers get a 35 percent premium subsidy.
- Other employees of public or privately owned enterprises and organizations receive a 10 percent premium subsidy.[13]

In cases where the insured have lapsed in paying their NHI premiums, full access to care is guaranteed under 2016 government regulations.[14]

Exemptions from outpatient copayments also apply to certain conditions and population groups, including the following:

- Childbirth
- Thirty specified catastrophic diseases and conditions, including cancer
- Residents of remote and mountainous areas and offshore islands
- Veterans and families of deceased veterans
- Low-income households
- Children under age 3
- Tuberculosis patients.[15]

Others receive discounts on copayments. For example, outpatient copayments for people with physical or mental disabilities are limited to TWD 50 (USD 1.65), and residents of under-resourced areas receive a 20 percent discount on copayments. In addition, copayments for home care are cut in half (from 10% to 5%) for residents who live in underserved areas or who have difficulty traveling to providers for care.[16]

Exemptions from drug copayments are given to patients with any of the 30 listed catastrophic diseases or conditions and to patients requiring palliative care or other symptom relief. Finally, the NHIA waives copayments for all drugs necessary to keep people with a list of MoHW-recognized rare diseases alive.

TYPICAL PATIENT COPAYMENTS AND SAFETY NETS

SERVICE	FEES PER ENCOUNTER/SERVICE	MAXIMUM OUT-OF-POCKET COSTS PER YEAR (SAFETY NET)
Primary care visit and specialist consultation	With referral: TWD 50–170 (USD 1.65–5.61) Without referral: TWD 50–420 (USD 1.65–13.86)	*Copayment exemptions:* • Patients with one of 30 major illnesses (including cancer, chronic mental health disease, rare disease, congenital conditions, and renal failure) • Children under 3 years old • Childbirth • Residents of remote mountainous areas and offshore islands • Veterans and family members of veterans with diseases • Low-income households *Copayment reductions:* For people with mental or physical disabilities, copayments are TWD 50 (USD 1.65), regardless of referral status; other patients receiving copayment reductions include residents who live in resource-poor areas or who have trouble traveling to see a provider
Hospitalization (per day or visit) including pharmaceuticals	*Coinsurance* (public and private hospitals) For stays less than 30 days: • 5% for chronic beds • 10% for acute beds For longer stays: • 10% for chronic beds • 30% for acute beds	Inpatient stay per episode of same diagnosis: TWD 38,000 (USD 1,254) Annual coinsurance cap for all inpatient stays of same diagnosis: TWD 64,000 (USD 2,112)
Prescription drugs (outpatient)	For covered drugs, copayment is TWD 200 (USD 6.6) per outpatient visit, regardless of number of drugs prescribed	No annual caps on drug copayments; copayment exemptions for patients with any of 30 listed catastrophic diseases or conditions or with rare diseases; drugs for symptom alleviation (palliative care) also exempted from copayments

Note: Table shows patient copayments only; additional patient registration fees may also be charged.

How is the delivery system organized and how are providers paid?

Physician education and workforce: Taiwan's government limits medical school admissions to 1,300 per year. There are both public and private medical schools. In 2018, tuition and fees at public medical schools were approximately TWD 36,170 (USD 1,194) per semester. Private tuition and fees were TWD 72,269 (USD 2,385) per semester.[17]

Two types of government-sponsored medical education programs help ensure a supply of medical providers in traditionally underserved areas. In the first type, the government may specify what residency-training specialties graduates need to pursue, as well as the location or hospital they need to practice in for two to four years. In the second type, high school graduates from Taiwan's aboriginal communities and offshore islands are admitted, through preferential affirmative action, into either public or private medical schools where they can choose their residency-training specialty but must return to their tribes or offshore islands to practice for six to seven years after graduation.

Physician care: Approximately 40 percent of Taiwan's physicians practice in their own private clinics. The rest work in hospitals as employees. Eighty percent to 90 percent of clinics are solo practices; the remainder are group practices, which may include multiple specialties.[18] In recent years, there has been a trend toward multispecialty group practices.

There is no gatekeeping system in Taiwan. Patients can choose to see any doctor at any time (family medicine or specialist), with no requirement to register with a primary care physician.

When doctors deem it necessary or expedient to refer patients to a higher level of care or another provider (usually a regional hospital or medical center), the patient will pay a lower copayment for that visit. This referral policy is intended to encourage patients with minor illnesses to seek care at local clinics, reducing waste and overcrowding at large hospitals and medical centers and ensuring that patients who truly need tertiary services can access them.

Physicians in Taiwan fall into six specialties: internal medicine, surgery, pediatrics, obstetrics/gynecology, emergency medicine, and "other." All physicians who practice in clinics are considered primary care doctors in Taiwan. However, only about 5 percent of all clinic doctors have received formal training in primary care.[19]

Nearly all private clinics (98%) contract with the NHIA to deliver services. Physicians are paid predominantly on a fee-for-service basis, according to national uniform fee schedules set by the NHIA with input from industry stakeholders. A primary care global budget is divided among and managed by the six NHIA regional offices. To maximize revenue, the clinics within each region compete fiercely for patients.

To date, clinic physicians' financial incentives to change their behavior are relatively limited. On average, less than 1 percent of physician income is derived from capitation or pay-for-performance programs.[20] (See "What are the major strategies to ensure quality of care?" below for more on pay-for-performance.)

Other sources of physician income are patient registration fees, services and goods not covered by NHI, and copayments and coinsurance. Physicians, including both family doctors and specialists in private practice, receive the same fees. Fees for psychiatry and emergency medicine are higher.[21]

Billing above the fee schedule is not permitted, except for a limited number of medical devices. In 2018, these devices included drug-eluting and bioactive coronary stents, ceramic hip joints, and intraocular lens implants.

Hospital-based physicians in all specialties, in both private and public facilities, also see patients on an outpatient basis. As hospital employees, they are paid a salary and bonuses pegged to productivity, such as volume of services delivered or papers published.

There is no specific fee schedule for ancillary medical professionals; most are paid a monthly salary plus a seasonal or annual bonus.[22]

Administrative mechanisms for direct patient payments to providers: Patients pay copayments at the point of service for physician visits, and pay coinsurance upon hospital discharge. In addition to copayments and coinsurance, clinics and hospitals charge nominal patient registration fees.

After-hours care: There are no formal after-hours care provisions. Although the hospital association and the NHIA have an agreement to provide telephone consultations after hours, the future of the arrangement is uncertain, as physician associations mandate that doctors must rest on weekends.[23]

Lack of widespread after-hours care is not viewed as a serious problem in Taiwan. Many physician clinics are open until 9:00 p.m. during the week and on Saturdays. Outside these hours, patients may visit one of Taiwan's more than 400 hospital emergency departments, where access is generally considered convenient and affordable.[24] In recent years, however, emergency departments have experienced increasing traffic.

Between 10:00 p.m. and 6:00 a.m., fees for emergency room visits are 50 percent higher than fees charged during the daytime; fees for weekend and holiday visits are 20 percent higher.[25]

Hospitals: Taiwan has both public and private hospitals. By law, private hospitals are nonprofit. As of 2016, 67 percent of all beds are private.[26]

Hospitals in Taiwan derive revenues from a global hospital budget set by the NHIA; this system differs from those of many other countries, in which hospitals receive hospital-specific budgets. The global hospital budget is divided into six regional budgets, each administered by one of six NHIA regional offices. Under this arrangement, competition for revenues is intense among hospitals within each region. Hospital business strategies include mergers, to expand market share, and direct-to-consumer advertising.

Hospitals are paid fee-for-service according to uniform national fee schedules and diagnosis-related groups (DRGs) set by the NHIA with input from stakeholders. As of 2016, there were 401 DRGs, accounting for 22 percent of all hospital payments. Uptake of DRGs has been slow, owing to provider resistance.

Hospitals also derive revenues from direct payments for non-NHI-covered services and goods, copayments for outpatient services and coinsurance for inpatient services, and registration fees collected at the time of service.

Mental health care: NHI covers mental health services on an outpatient basis (including day care), and on an inpatient basis for both acute and chronic mental health problems. Over the past 15 years, Taiwan has been increasing its mental health bed capacity to alleviate a shortage in the supply of such beds.

All copayments associated with chronic mental health care are waived.[27]

Long-term care and social supports: As of 2017, 14 percent of Taiwan's population was aged 65 or older. In response to Taiwan's rapidly growing elderly population, the government has implemented a long-term care policy that seeks to integrate medical care, long-term care, prevention, and health maintenance to facilitate aging in place, healthy aging, and active aging.

In October 2016, the government began a trial implementation of its 10-Year Long Term Care Plan 2.0. A new service delivery system is being developed to provide services through a three-tiered, community-based network:

- Level A agencies, or community-based service centers, are responsible for preparing care plans for individuals with cognitive impairments.
- Level B agencies are connected to Level A agencies and are responsible for delivering long-term care services.
- Level C agencies, or neighborhood long-term care stations, are connected to Level B agencies and are responsible for providing preventive and disability delay services.

Communities may elect to implement either an A-B-C network model or a B-C network model of delivery.

Both public and private hospitals and medical centers participate in the three-tier long-term care service delivery.

Services covered include home care, day care, transportation, meals, purchase and rental of equipment, home accident-proofing, home nursing care, home and community rehabilitation services, respite care, caregiver support services, and training to prevent or delay the onset of disabilities (e.g., swallowing and muscle strength training).

Enrollment in long-term care coverage is mandatory starting at birth. Financing currently relies on three sources: government, employers, and out-of-pocket payments by users of services. For low-income families, the government subsidizes 100 percent of long-term care costs.

As of June 2019, long-term care remains a work in progress in Taiwan.

What are the major strategies to ensure quality of care?

Major NHIA strategies to ensure quality of care fall into three broad categories:

Payment incentives. A number of programs aim to improve access and quality, such as the pay-for-performance schemes. Since 2001, pay-for-performance programs have been implemented for 12 diseases and conditions including cervical cancer, tuberculosis, diabetes, asthma, schizophrenia, early-stage chronic kidney disease, and maternity care. Care teams consisting of nurses, dieticians, and other nonphysician clinicians provide integrated and coordinated care to improve quality and outcomes.

The program is reaching many of Taiwan's people. For instance, as of 2017, 68 percent of schizophrenia patients are cared for under the pay-for-performance plan.[28]

The annual budgeting process is also incentivized. Taiwan has five sectoral global budgets, for dentistry, Chinese medicine, primary care clinics, hospitals, and dialysis. Each July, the NHI Committee meets with scholars and experts to review and grade the performance of each sectoral global budget in terms of service delivery, quality, public satisfaction, appropriate use of resources, and other criteria. There are five grades: "exceptional," "excellent," "good," "fair," and "bad." (A "bad" grade has never been assigned.)

The annual increase for each sectoral global budget is based on the grade received: a 0.5 percent increase for "exceptional," 0.3 percent for "excellent," and so on.

Claims management and reviews: Taiwan has a fully automated claims review system to ensure that claims meet specific medical appropriateness criteria. In addition, randomly selected claims are peer-reviewed for consistency in billing and for the clinical appropriateness of treatments.

Information-sharing and transparency: Since 2005, the NHIA has publicly reported provider performance data on specific quality and cost metrics, including registration fees charged, health care services provided, and the quality of services (including hospital-acquired infection rates) to facilitate patient decision-making on where to seek care.

The NHIA has developed several hundred quality indicators, some of which are used in pay-for-performance programs, some for calculating global budgets, and others for public transparency efforts and claims review.[29] Many of these metrics serve the dual purpose of improving quality and reducing costs.

Other important national programs for quality assurance and improvement include:

- The Post-Acute Care Pilot Project for stroke patients
- The Integrated Post-Acute Care program for burn patients
- The Artificial Joints Registry System, which was launched in 2016 to improve patient safety and quality of care and reduce mortality from unsafe artificial joints.

What is being done to reduce disparities?

More than 3 million economically disadvantaged Taiwanese (12.8% of the population) have full access to NHI services, owing to the NHIA's various financial and access-assistance measures, including premium subsidies and copayment and coinsurance reductions or exemptions (see "Safety nets" in table above). The NHIA also makes interest-free loans and installment plans available to those who cannot pay their premiums on time because they are temporarily unemployed or between jobs. In recent years, the government has lowered the income threshold to allow more people to become eligible for these premium subsidies.

What is being done to promote delivery system integration and care coordination?

In general, financial incentives that encourage physicians to provide coordinated care are relatively limited.[30] In addition, programs integrating health and social care services for vulnerable populations are currently a work in progress. Three departments within the MoHW currently provide social care services, but full integration with health care services has not yet occurred. Funding for social care services comes from budget allocations to municipal governments.

However, improving delivery system integration and care coordination has been on the NHIA's agenda for many years. Efforts to date include:

The Integrated Delivery System. Taiwanese living in remote and mountainous areas and on offshore islands (approximately 400,000 people, or 1.7% of the population) can access medical services through the Integrated Delivery System, a government program that began in 1999. The program provides access to outpatient care (including overnight and on holidays), 24-hour emergency care, and specialty care through integrated village clinics, local hospitals, and mobile health services. Telemedicine and helicopter services are used to provide needed care to patients on remote offshore islands, for example, and to bring pregnant women to hospitals for delivery.

As part of the program, providers receive bonuses for serving these remote patients.

The Family Doctor Integrated Care Program. Since 2003, the NHIA has been promoting this community-based program. Community networks, made up of five or more primary care physicians and one community hospital, provide patient-centered primary care, including disease management, patient health education, and preventive care. Telephone consultations with family doctors are also available 24 hours a day for people enrolled in the program.

In 2017, the Family Doctor Integrated Care Program was strengthened with an increased emphasis on service capacity and quality improvement in community-based medical networks.

As of June 2017, 4,063 primary care clinics and 183 hospitals have joined to form 526 primary care networks, covering 4.1 million residents, or 17.4 percent of NHI enrollees in Taiwan.[31] Primary care networks are paid small fees for registering patients in their network.

The Hospital Patient-Centered Integrated Care Program. This initiative is aimed at outpatients aged 65 and older with two or more chronic conditions.

What is the status of electronic health records?

Everyone in Taiwan carries an electronic NHI card bearing a unique personal identifier to access care. The card encodes personal information, insurance data, notes from recent medical visits, diagnoses, drug prescriptions, drug allergies, major illnesses, organ donation consent, palliative care directives, and public health records (including immunizations).

The NHI PharmaCloud is a cloud-based, patient-centered drug information system that the NHIA introduced in 2013. PharmaCloud takes advantage of the vast database the NHIA has created to enable doctors and pharmacists to access a patient's medication history from the past three months. PharmaCloud also gives prescribers clinical recommendations and safe-use information to prevent adverse drug reactions and reduce unnecessary prescriptions.

My Health Bank, introduced in 2014, is another cloud-based innovation that provides comprehensive health and medical records from the previous three years for any insured person on request. Records can be updated at any time. In addition to increasing the transparency of important personal health information, the initiative is intended to assist patients in managing their own health. A personal e-health record book contains the patient's complete medical history from the past year, which can be downloaded from the Web for the patient's own use.

In 2015, the NHIA developed the NHI MediCloud system, which incorporates patient data in the PharmaCloud system and in 11 additional records systems; the data includes Chinese medicine prescription use, examination and test results, surgeries, dental care and oral surgery, drug allergies, and hospital discharge summaries.[32]

All hospitals and clinics use electronic patient medical records. However, owing to a lack of infrastructure investment, NHI still has no systemwide interoperability, and the electronic exchange of patient medical records among hospitals is limited.[33]

How are costs contained?

The global NHI budget system is, by far, Taiwan's most powerful cost-containment tool. After global budgets were introduced, national health expenditures grew by 3.87 percent a year on average between 2004 and 2015. Prior to that period, annual growth rates ranged from 6 percent to 9 percent.

Other cost-containment measures include DRG payments for hospitals and annual drug price adjustments.

Drug expenditures account for 25 percent of total NHI expenditures, higher than the OECD average of 16.2 percent.[34] Prices for pharmaceuticals are set by the NHIA with input from stakeholders. The NHIA's pharmaceutical benefit management initiative considers both clinical effectiveness and cost-effectiveness in coverage decisions. Prices for breakthrough drugs that are under patent protection are set through reference pricing, in accordance with the median price in 10 leading developed countries: the U.S., the U.K., Australia, Belgium, Canada, Germany, France, Japan, Sweden, and Switzerland.[35]

To control total drug expenditures as a percentage of total NHI expenditures, the NHIA implemented an annual price adjustment mechanism in 2013. When actual drug expenditures (billings) exceed target expenditures in any given year, the automatic price adjustment mechanism kicks in, and prices are revised so that total expenditures do not exceed the predetermined target.[36]

As noted earlier, the NHIA's automated claims review checks for the overall appropriateness of claims; in addition, the IT system randomly selects a small percentage of claims for individual professional review by clinical experts. Both measures are aimed at monitoring cost and quality.

Patient cost-sharing has never been a key cost-containment strategy in Taiwan. Overall, government provisions aimed at safeguarding access to care have rendered patient cost-sharing a largely insignificant factor in cost containment.

Political considerations have made eliminating low-value care difficult.[37]

What major innovations and reforms have recently been introduced?

Since June 2016, the NHIA has stepped up efforts aimed at strengthening primary care through delivery system integration and the establishment of a referral system. The six components of this new strategy[38] are:

- Enhancing the capacity of primary care
- Incentivizing the public to use the referral system through adjustments to the copayment system
- Raising payments to hospitals for critical care to incentivize hospitals to reduce services related to treating minor illnesses
- Strengthening cooperation between hospitals and clinics to provide continuous care
- Strengthening the public's capabilities in self-care
- Strengthening the governance of hospitals.

REFERENCES

1. T.M. Cheng, "Taiwan's New National Health Insurance Program: Genesis and Experience So Far," *Health Affairs* 22, no. 3 (May–June 2003): 61–76.
2. Council for Economic Planning and Development, *A Summary of the National Health Insurance (NHI) Plan Adopted by the Republic of China (Taiwan),* June 25, 1990.
3. C.C. Yeh, *The Legend of the National Health Insurance* (Tung Foundation, 2002).
4. Ministry of Health and Welfare (MoHW), *Health Statistics Trends 2017* (2019).
5. Data based on author's personal email communication with senior official at the National Health Insurance Administration (NHIA), June 4, 2018.
6. Author's personal email communication with senior NHIA official, June 4, 2018.
7. NHIA, *2017–2018 National Health Insurance Annual Report.*
8. Please note that, throughout this profile, all figures in U.S. dollars (USD) were converted from Taiwanese dollars (TWD) at a rate of TWD 33 per USD 1.
9. NHIA, *2017–2018 National Health Insurance Annual Report.*
10. Author's personal email communication with senior NHIA official, June 4, 2018.
11. MOHW, *Health Statistics Trends 2016.*
12. T.M. Cheng, "Reflections on the 20th Anniversary of Taiwan's Single-Payer National Health Insurance System," *Health Affairs* 34, no. 3 (March 2015): 502–10.
13. NHIA, *2018–2019 National Health Insurance Annual Report.*
14. NHIA, *2017–2018 National Health Insurance Annual Report.*
15. NHIA, *2017–2018 National Health Insurance Annual Report.*
16. NHIA, *2018–2019 National Health Insurance Annual Report.*
17. Author's personal email communication with senior NHIA official, June 4, 2018.
18. Author's personal communication with senior NHIA official, Oct. 22, 2016.
19. Author's personal communication with senior NHIA official, Oct. 22, 2016.
20. Author's personal email communication with senior NHIA official, June 8, 2018.
21. Author's personal email communication with senior NHIA official, June 4, 2018.
22. Author's personal email communication with senior NHIA official, June 8, 2018.
23. Author's personal communication with senior NHIA official, Oct. 22, 2016.
24. NHIA, *2015–2016 National Health Insurance Annual Report.*
25. Author's personal email communication with senior NHIA official, June 4, 2018.
26. MOHW, *2016 Health Statistics Trends.*
27. Cheng, "Taiwan's New National Health Insurance Program."
28. NHIA, *2018–2019 National Health Insurance Annual Report.*
29. Author's personal communication with senior NHIA official, Oct. 26, 2016.
30. Author's personal email communication with senior NHIA official, June 8, 2018.
31. NHIA, *2017–2018 National Health Insurance Annual Report.*
32. NHIA, *2018–2019 National Health Insurance Annual Report.*
33. Author's personal communication with senior NHIA official, Oct. 26, 2016.
34. OECD Health Statistics 2017.
35. Author's personal email communication with senior NHIA official, June 8, 2018.
36. NHIA, *2017–2018 National Health Insurance Annual Report.*
37. Author's personal email communication with senior NHIA official, June 8, 2018.
38. NHIA, *2017–2018 National Health Insurance Annual Report.*

The U.S. Health Care System

The Commonwealth Fund

The U.S. health system is a mix of public and private, for-profit and nonprofit insurers and health care providers. The federal government provides funding for the national Medicare program for adults age 65 and older and some people with disabilities as well as for various programs for veterans and low-income people, including Medicaid and the Children's Health Insurance Program. States manage and pay for aspects of local coverage and the safety net. Private insurance, the dominant form of coverage, is provided primarily by employers. The uninsured rate, 8.5 percent of the population, is down from 16 percent in 2010, the year that the landmark Affordable Care Act became law. Public and private insurers set their own benefit packages and cost-sharing structures, within federal and state regulations.

How does universal health coverage work?

The United States does not have universal health insurance coverage. Nearly 92 percent of the population was estimated to have coverage in 2018, leaving 27.5 million people, or 8.5 percent of the population, uninsured.[1] Movement toward securing the right to health care has been incremental.[2]

Employer-sponsored health insurance was introduced during the 1920s. It gained popularity after World War II when the government imposed wage controls and declared fringe benefits, such as health insurance, tax-exempt. In 2018, about 55 percent of the population was covered under employer-sponsored insurance.[3]

In 1965, the first public insurance programs, Medicare and Medicaid, were enacted through the Social Security Act, and others followed.

Medicare. Medicare ensures a universal right to health care for persons age 65 and older. Eligible populations and the range of benefits covered have gradually expanded. In 1972, individuals under age 65 with long-term disabilities or end-stage renal disease became eligible.

All beneficiaries are entitled to traditional Medicare, a fee-for-service program that provides hospital insurance (Part A) and medical insurance (Part B). Since 1973, beneficiaries have had the option to receive their coverage through either traditional Medicare or Medicare Advantage (Part C), under which people enroll in a private health maintenance organization (HMO) or managed care organization.

In 2003, Part D, a voluntary outpatient prescription drug coverage option provided through private carriers, was added to Medicare coverage.

Medicaid. The Medicaid program first gave states the option to receive federal matching funding for providing health care services to low-income families, the blind, and individuals with disabilities. Coverage was gradually made mandatory for low-income pregnant women and infants, and later for children up to age 18.

Today, Medicaid covers 17.9 percent of Americans. As it is a state-administered, means-tested program, eligibility criteria vary by state. Individuals need to apply for Medicaid coverage and to re-enroll and recertify annually. As of 2019, more than two-thirds of Medicaid beneficiaries were enrolled in managed care organizations.[4]

Children's Health Insurance Program. In 1997, the Children's Health Insurance Program, or CHIP, was created as a public, state-administered program for children in low-income families that earn too much to qualify for Medicaid but that are unlikely to be able to afford private insurance. Today, the program covers 9.6 million children.[5] In some states, it operates as an extension of Medicaid; in other states, it is a separate program.

Affordable Care Act. In 2010, the passage of the Patient Protection and Affordable Care Act, or ACA, represented the largest expansion to date of the government's role in financing and regulating health care. Components of the law's major coverage expansions, implemented in 2014, included:

- requiring most Americans to obtain health insurance or pay a penalty (the penalty was later removed)
- extending coverage for young people by allowing them to remain on their parents' private plans until age 26

- opening health insurance marketplaces, or exchanges, which offer premium subsidies to lower- and middle-income individuals
- expanding Medicaid eligibility with the help of federal subsidies (in states that chose this option).

The ACA resulted in an estimated 20 million gaining coverage, reducing the share of uninsured adults aged 19 to 64 from 20 percent in 2010 to 12 percent in 2018.[6]

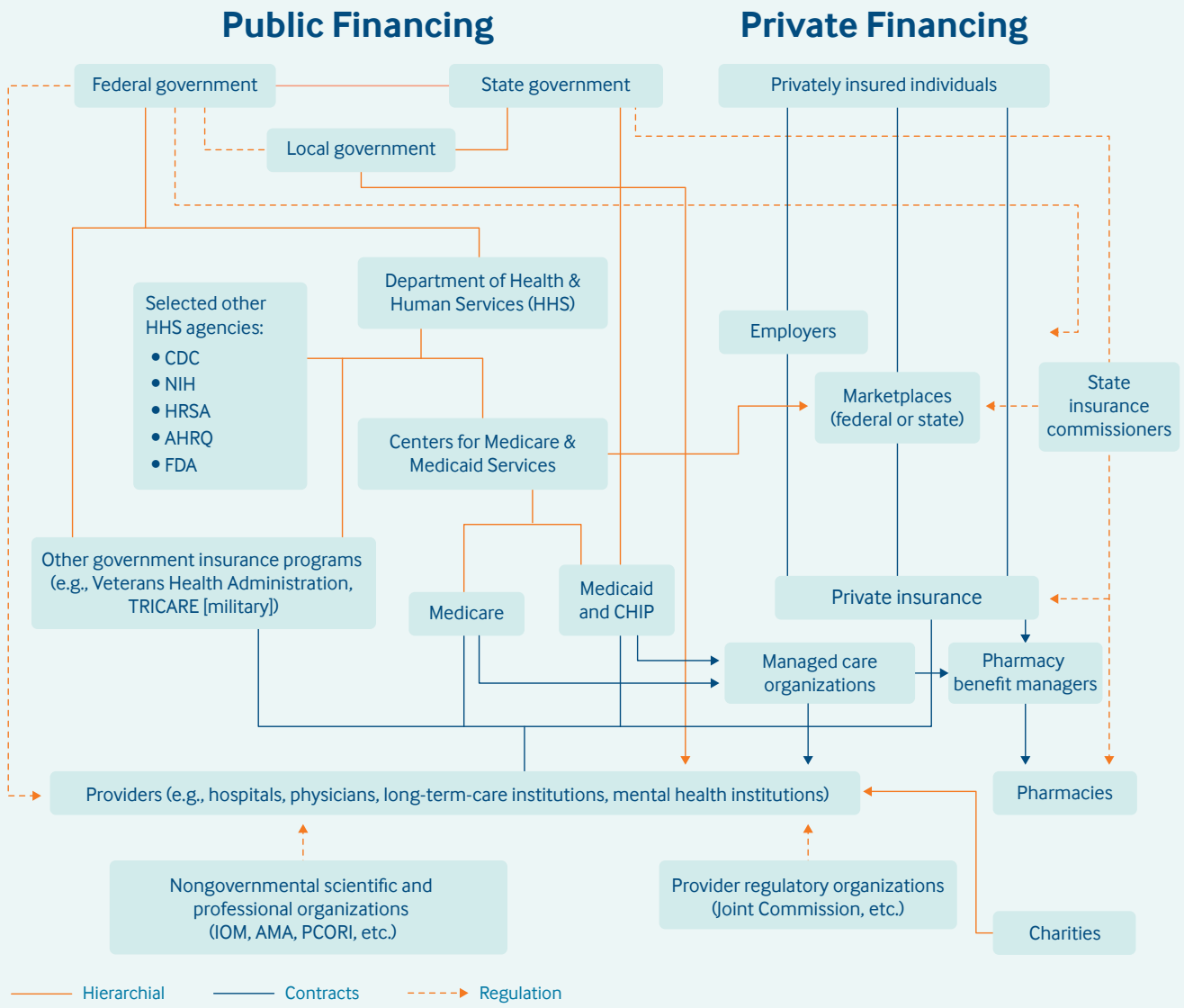
Role of government: The federal government's responsibilities include:

- setting legislation and national strategies
- administering and paying for the Medicare program
- cofunding and setting basic requirements and regulations for the Medicaid program
- cofunding CHIP
- funding health insurance for federal employees as well as active and past members of the military and their families
- regulating pharmaceutical products and medical devices
- running federal marketplaces for private health insurance
- providing premium subsidies for private marketplace coverage.

The federal government has only a negligible role in directly owning and supplying providers, except for the Veterans Health Administration and Indian Health Service. The ACA established "shared responsibility" among government, employers, and individuals for ensuring that all Americans have access to affordable and good-quality health insurance. The U.S. Department of Health and Human Services is the federal government's principal agency involved with health care services.

The states cofund and administer their CHIP and Medicaid programs according to federal regulations. States set eligibility thresholds, patient cost-sharing requirements, and much of the benefit package. They also help finance health insurance for state employees, regulate private insurance, and license health professionals. Some states also manage health insurance for low-income residents, in addition to Medicaid.

ORGANIZATION OF THE HEALTH SYSTEM IN THE UNITED STATES



Note: CDC = Centers for Disease Control and Prevention; NIH = National Institutes of Health; HRSA = Health Resources and Services Administration; AHRQ = Agency for Healthcare Research and Quality; FDA = Food and Drug Administration; CHIP = Children's Health Insurance Program; IOM = Institute of Medicine; AMA = American Medical Association; PCORI = Patient-Centered Outcomes Research Institute.
Source: Adapted from T. Rice et al., "United States of America: Health System Review," *Health Systems in Transition,* vol. 15, no. 3, 2013, p. 27.

Role of public health insurance: In 2017, public spending accounted for 45 percent of total health care spending, or approximately 8 percent of GDP. Federal spending represented 28 percent of total health care spending. Federal taxes fund public insurance programs, such as Medicare, Medicaid, CHIP, and military health insurance programs (Veteran's Health Administration, TRICARE). The Centers for Medicare and Medicaid Services is the largest governmental source of health coverage funding.

Medicare is financed through a combination of general federal taxes, a mandatory payroll tax that pays for Part A (hospital insurance), and individual premiums.

Medicaid is largely tax-funded, with federal tax revenues representing two-thirds (63%) of costs, and state and local revenues the remainder.[7] The expansion of Medicaid under the ACA was fully funded by the federal government until 2017, after which the federal funding share gradually decreased to 90 percent.

CHIP is funded through matching grants provided by the federal government to states. Most states (30 in 2018) charge premiums under that program.

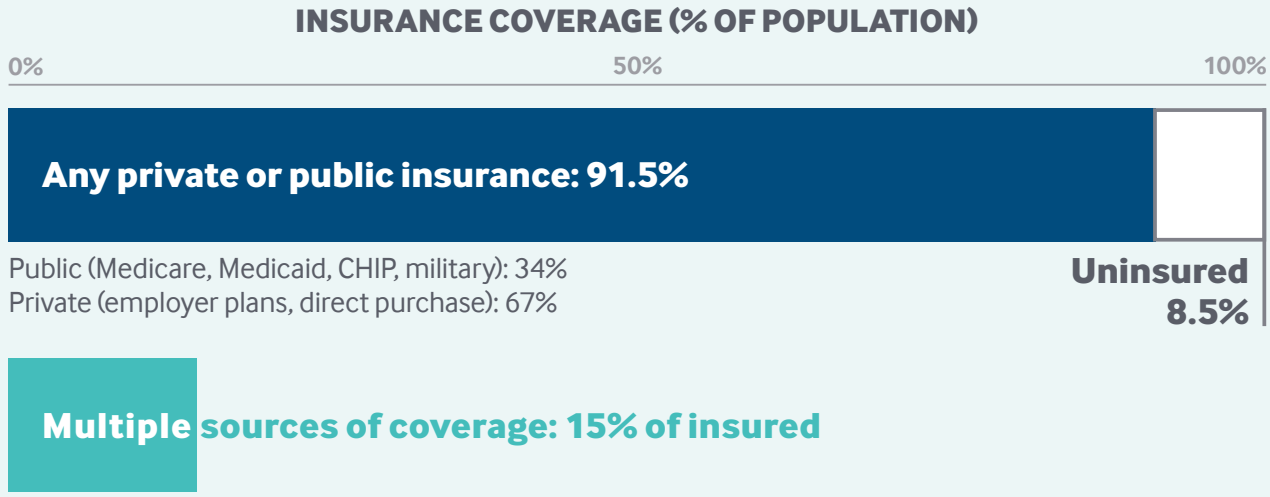
Role of private health insurance: Spending on private health insurance accounted for one-third (34%) of total health expenditures in 2018. Private insurance is the primary health coverage for two-thirds of Americans (67%). The majority of private insurance (55%) is employer-sponsored, and a smaller share (11%) is purchased by individuals from for-profit and nonprofit carriers.

Most employers contract with private health plans to administer benefits. Most employer plans cover workers and their dependents, and the majority offer a choice of several plans.[8,9] Both employers and employees typically contribute to premiums; much less frequently, premiums are fully covered by the employer.

The ACA introduced a federal marketplace, HealthCare.gov, for purchasing individual primary health insurance or dental coverage through private plans. States can also set up their own marketplaces.

More than one in three Medicare beneficiaries in 2019 opted to receive their coverage through a private Medicare Advantage health plan.[10]

Medicaid beneficiaries may receive their benefits through a private managed care organization, which receives capitated, typically risk-adjusted payments from state Medicaid departments. More than two-thirds of Medicaid beneficiaries are enrolled in managed care.



Source: Current Population Survey, 2018 Annual Social and Economic Supplement Bridge File and 2019 Annual Social and Economic Supplement (Nov. 2019).

Services covered: There is no nationally defined benefit package; covered services depend on insurance type:

Medicare. People enrolled in Medicare are entitled to hospital inpatient care (Part A), which includes hospice and short-term skilled nursing facility care.

Medicare Part B covers physician services, durable medical equipment, and home health services. Medicare covers short-term post-acute care, such as rehabilitation services in skilled nursing facilities or in the home, but not long-term care.

Part B covers only very limited outpatient prescription drug benefits, including injectables or infused drugs that need to be administered by a medical professional in an office setting. Individuals can purchase private prescription drug coverage (Part D).

Coverage for dental and vision services is limited, with most beneficiaries lacking dental coverage.[11]

Medicaid. Under federal guidelines, Medicaid covers a broad range of services, including inpatient and outpatient hospital services, long-term care, laboratory and diagnostic services, family planning, nurse midwives, freestanding birth centers, and transportation to medical appointments.

States may choose to offer additional benefits, including physical therapy, dental, and vision services. Most states (39, as of 2018) provide dental coverage.[12]

Outpatient prescription drugs are an optional benefit under federal law; however, currently all states provide drug coverage.

Private insurance. Benefits in private health plans vary. Employer health coverage usually does not cover dental or vision benefits.[13]

The ACA requires individual marketplace and small-group market plans (for firms with 50 or fewer employees) to cover 10 categories of "essential health benefits":

- ambulatory patient services (doctor visits)
- emergency services
- hospitalization
- maternity and newborn care
- mental health services and substance use disorder treatment
- prescription drugs
- rehabilitative services and devices
- laboratory services
- preventive and wellness services and chronic disease management
- pediatric services, including dental and vision care.

Cost-sharing and out-of-pocket spending: In 2018, households financed roughly the same share of total health care costs (28%) as the federal government. Out-of-pocket spending represented approximately one-third of this, or 10 percent of total health expenditures. Patients usually pay the full cost of care up to a deductible; the average for a single person in 2018 was $1,846. Some plans cover primary care visits before the deductible is met and require only a copayment.

Out-of-pocket spending is considerable for dental care (40% of total spending) and prescribed medicines (14% of total spending).[14]

Safety nets: In addition to public insurance programs, including Medicare and Medicaid, taxpayer dollars fund several programs for uninsured, low-income, and vulnerable patients. For instance, the ACA increased funding to federally qualified health centers, which provide primary and preventive care to more than 27 million underserved patients, regardless of ability to pay. These centers charge fees based on patients' income and provide free vaccines to uninsured and underinsured children.[15]

To help offset uncompensated care costs, Medicare and Medicaid provide disproportionate-share payments to hospitals whose patients are mostly publicly insured or uninsured. State and local taxes help pay for additional charity care and safety-net programs provided through public hospitals and local health departments.

In addition, uninsured individuals have access to acute care through a federal law that requires most hospitals to treat all patients requiring emergency care, including women in labor, regardless of ability to pay, insurance status, national origin, or race. As a consequence, private providers are a significant source of charity and uncompensated care.

TYPICAL PATIENT COPAYMENTS AND SAFETY NETS*

SERVICE	FEES PER ENCOUNTER/ SERVICE	MAXIMUM OUT-OF-POCKET COSTS	SAFETY-NETS (COST SHARING EXEMPTIONS)
Primary and specialist outpatient care, per visit	**Medicare (Part B):** 20% coinsurance after meeting annual deductible (USD 185). **Medicaid:** Maximum allowable copay between USD 4.00 and 10%–20% coinsurance. **Private insurance:** Varies by insurer; fees considerably higher for out-of-network providers.	**Traditional Medicare:** No cap for care obtained on a fee-for-service basis. **Medicare Advantage:** $6,700 (in-network) or $10,000 (in-network and out-of-network combined) for Part A and Part B services. **Medicaid/Children's Health Insurance Program:** 5% of household income per year. **Private insurance (individual marketplace):** • Individual: USD 7,900 per year • Family: USD 15,800 per year.	**Medicaid** • Children generally exempt. • Exemptions for emergency services, family planning, pregnancy-related care, preventive services for children, and care for terminally ill and institutionalized individuals. **Children's Health Insurance Program:** • Exemptions for American Indian/Alaskan Native children and for well-baby and well-child care. **Private insurance (employer-sponsored, individual marketplace):** • Preventive services exempt if provided by in-network providers. **Private insurance (individual marketplace):** • Cost-sharing reductions for low- and middle-income families • No cost-sharing for low-income American Indians and Alaska Natives. **Medicare:** Certain preventive services exempt from cost-sharing. **Medicare (Part D):** Lower cost-sharing for beneficiaries with low income.
Hospitalization	**Medicare (Part A):** • Days 0–60: Full cost up to USD 1,364 deductible, then no charge • Days 61–90: USD 341 per day • Days 90+: USD 682 per day. **Medicaid:** Maximum allowable copayment USD 75 or 10%–20% coinsurance per stay.		
Prescription drugs	**Medicare (Part B):** 20% coinsurance for drugs administered in physician offices, after meeting deductible (USD 185). **Medicare (Part D):** Varies by prescription drug plan: • Generics: USD 0–13 copay • Brand-name-preferred drugs: USD 25–47 copay • Nonpreferred drugs: 32%–50% coinsurance • Specialty drugs: 25%–33% coinsurance. **Medicaid:** Maximum allowable copays: • Preferred drugs: USD 4.00 • Nonpreferred drugs: Between USD 8 and 20% coinsurance.	**Medicare (Part D):** No cap. Patients pay 100% of cost up to maximum deductible of USD 415; thereafter, 25% of costs and dispensing fee, up to USD 8,140 and then 5% of costs. **Medicaid/CHIP:** Family maximum of 5% of household income per year.	

* Fees listed are from 2019. For Medicaid, maximum allowable copayment varies by income, relative to federal poverty level. Coinsurance reflects proportion of state-based costs Medicaid pays. Medicare Parts A, B, and D data from Centers for Medicare and Medicaid Services (CMS) and Kaiser Family Foundation (KFF).[16] Medicare Part D prescription cost data based on 10 largest stand-alone Part D plans; 2019 data from KFF.[17] Medicare Part C (Advantage) data from KFF.[18] Medicaid/CHIP data based on CMS and KFF data.[19] Private, individual marketplace insurance data from CMS.[20]

How is the delivery system organized and how are providers paid?

Physician education and workforce: Most medical schools (59%) are public. Median tuition fees in 2019 were $39,153 in public medical schools and $62,529 in private schools. Most students (73%) graduate with medical debt averaging $200,000 (2019), an amount that includes pre-medical education.[21] Several federal debt-reduction, loan-forgiveness, and scholarship programs are offered; many target trainees for placement in underserved regions. Providers practicing in designated Health Professional Shortage Areas are eligible for a Medicare physician bonus payment.

Primary care: Roughly one-third of all professionally active doctors are primary care physicians, a category that encompasses specialists in family medicine, general practice, internal medicine, pediatrics, and, according to some, geriatrics. Approximately half of primary care doctors were in physician-owned practices in 2018; more commonly, these are general internists rather than family practitioners.[22]

Primary care physicians are paid through a combination of methods, including negotiated fees (private insurance), capitation (private insurance and some public insurance), and administratively set fees (public insurance). The majority (66%) of primary care practice revenues come from fee-for-service payments.[23] Since 2012, Medicare has been experimenting with alternative payment models for primary care and specialist providers.

Outpatient specialist care: Specialists can work both in private practices and in hospitals. Specialist practices are increasingly integrating with hospital systems, as well as consolidating with each other. The majority of specialists are in group practices, most often in single-specialty group practices.[24]

Outpatient specialists are free to choose which form of insurance they will accept. For example, not all specialists accept publicly insured patients, because of the relatively lower reimbursement rates set by Medicaid and Medicare. Access to specialists for beneficiaries of these programs—not to mention for people without any insurance—can therefore be particularly limited.

Administrative mechanisms for direct patient payments to providers: Copayments for doctor visits are typically paid at the time of service or billed to the patient afterward. Some insurance plans and products (including health savings accounts) require patients to submit claims to receive reimbursement.

Providers bill insurers by coding the services rendered. There are thousands of codes, making this process time-consuming; providers typically hire coding and billing staff.

Because of administrative hurdles, a small number of providers do not accept any insurance. Instead, they accept only cash payments or require annual or monthly retainer payments to the providers for "concierge medicine," which offers enhanced access to services.

After-hours care: Primary care physicians are not required to provide or plan for after-hours access for their registered patients. However, in 2019, 45 percent of primary care doctors had after-hours arrangements: 38 percent of these provide care in the evenings and 41 percent on the weekends.[25]

After-hours care is increasingly provided through walk-in appointments at private urgent-care centers or retail clinics that typically serve younger, healthier individuals who require episodic care and may not have a primary care provider.[26]

Hospitals: In 2018, 57 percent of the 5,198 short-term acute care hospitals in the U.S. were nonprofit; 25 percent were for-profit; and 19 percent were public (state or local government–owned).[27] In addition, there were 209 federal government hospitals.

Hospitals are free to choose which insurance they accept; most accept Medicare and Medicaid. Hospitals are paid through a combination of methods.

- Medicare pays hospitals through prospective diagnosis-related group (DRG) rates, which do not include physician payments.
- Medicaid pays hospitals on a DRG, per diem, or cost-reimbursement basis,[28] and states have considerable discretion in setting hospital payment rates.
- Private insurers pay hospitals usually on a per diem basis, typically negotiated between each hospital and its insurers on an annual basis.

Mental health care: Services are provided by both generalists and specialists—including primary care physicians, psychiatrists, psychologists, social workers, and nurses—with the majority delivered in an outpatient setting. Providers are mostly private (nonprofit and for-profit), with some public providers, including public mental health hospitals, Veterans Affairs providers, and federally qualified health centers.

The federal Substance Abuse and Mental Health Services Administration provides states with grants, including Mental Health Block Grants, that fund community mental health services. State and local governments provide additional funding.

The ACA mandated that marketplace insurers provide coverage of mental health and substance use conditions as an essential health benefit. The law also requires all private insurers, including employer-sponsored plans, to provide the same level of benefits for mental and physical health conditions.

Some individuals with serious, long-term mental illnesses qualify for Medicare before age 65. Otherwise, Medicaid is the single largest source of funding for mental health services in the country.[29] Many employer-sponsored plans and some state Medicaid programs provide benefits through carve-out contracts with managed behavioral health care organizations.[30]

Long-term care and social supports: There is no universal coverage for long-term care services. Public spending represents approximately 70 percent of total spending on long-term care services, with Medicaid accounting for the majority.[31] Medicare and most employer-sponsored plans cover only post–acute care services following hospitalization, including hospice, short-term nursing services, and short-term nursing home stays (up to 100 days following acute hospitalization).

Private long-term care insurance is available but rarely purchased; private insurance represented only 7.5 percent of total long-term care spending in 2016.

The ACA originally included the Community Living Assistance Services and Supports Act, which would have created a universal, voluntary, public long-term care insurance option for employed persons. However, the program was deemed unworkable and was repealed in 2013.

What are the major strategies to ensure quality of care?

The ACA required the U.S. Department of Health and Human Services to establish a National Quality Strategy,[32] a set of national aims and priorities to guide local, state, and national quality improvement efforts, supported by partnerships with public and private stakeholders. The strategy includes annual reporting on a selected set of quality measures.[33]

Since 2003, the Agency for Healthcare Research and Quality has published the annual *National Healthcare Quality and Disparities Report*, which reports on national progress in health care quality improvement. The 2018 report found that the quality of U.S. health care had improved overall from 2000 to 2016, but that improvement was inconsistent. For example, while most person-centered care and patient-safety measures improved, affordability did not.[34]

Federal law requires certain providers to report data on the quality of their care, and the Centers for Medicare and Medicaid Services to publicly report performance on quality measures. For example, Hospital Compare is an online public resource summarizing the performance of more than 4,000 hospitals on measures of care processes, care outcomes, and patient experiences. Related quality-reporting programs include Nursing Home Compare and Physician Compare.

The Healthcare Effectiveness Data and Information Set is one of the most widely used tools for rating provider quality. It is used by health plans to rate provider quality. The set includes rates of cancer screenings, medication management for chronic conditions, follow-up visits, and other metrics. The nonprofit National Quality Forum builds consensus on national performance measurement and priorities, including the submission of recommendations for measures to be used in Medicare.

What is being done to reduce disparities?

Several federal agencies are tasked with monitoring and reducing disparities. The Agency for Healthcare Research and Quality publishes an annual national report highlighting disparities in health care quality by race/ethnicity, age, and sex. According to the latest report, disparities related to income and race persist but grew smaller between 2000 and 2016.[35] African Americans, American Indians, Alaska Natives, Native Hawaiians, and Pacific Islanders received worse care than whites according to about 40 percent of quality measures. Hispanics and Asian Americans received worse care per 35 percent and 28 percent of measures, respectively. Disparities for poor and uninsured populations are also persisting in major priority areas for quality.

Certain federal offices have specific responsibilities related to reducing disparities:

- The Office of Minority Health is tasked with developing policies and programs to eliminate disparities among racial and ethnic minority groups.
- The Health Resources and Services Administration is tasked with providing grants to states, local governments, and community-based organizations for care and treatments for low-income, uninsured, or other vulnerable populations, including specific programs targeting individuals with HIV/AIDS, mothers and children (through the Maternal and Child Health Bureau), and rural or remote populations.[36] The agency also houses the Office of Health Equity, which works to reduce health disparities.
- The Indian Health Service serves 2.6 million American Indians and Alaska Natives who belong to more than 500 federally recognized tribes in 37 states. The service is fully funded through the federal government.

The ACA created a legal requirement for nonprofit hospitals, which are exempt from paying certain taxes because of their charitable status, to conduct community health needs assessments together with community stakeholders to identify and address unmet health needs in their communities. This requirement is enforced through the Internal Revenue Service, and reporting must be made available to the public.[37]

What is being done to promote delivery system integration and care coordination?

The ACA introduced several levers to improve the coordination of care among medical/clinical providers in the largely specialist-driven health care system. For example, the law supported adoption of the "patient-centered medical home" model, which emphasizes care continuity and coordination via primary care, as well as evidence-based care, expanded access, and prevention and chronic care management.

The ACA also expanded the Centers for Medicare and Medicaid Services' ability to test alternative payment models that reward quality, reduce costs, and aim to improve care coordination. This trend has since been continued by public and private payers.

One of these alternative payment models is "bundled payments," whereby a single payment is made for all the services delivered by multiple providers for a single episode of care. Another trend is the proliferation of accountable care organizations (ACOs). These networks of providers assume contractual responsibility for providing a defined population with care that meets quality targets. Providers in ACOs share in the savings that constitute the difference between forecasted and actual health care spending.

As of 2019, there were more than 1,000 ACOs in the public and private markets, covering 32.7 million people. Of these ACOs, 558 are Medicare ACOs, serving 12.3 million beneficiaries who are free to seek services from any Medicare provider, including those outside their designated ACO.[38,39,40] There are many variants of the Medicare ACO: The most popular is a permanent program written into the ACA, the Medicare Shared Savings Program, which serves nearly one-third of all Medicare beneficiaries. To improve coordination, ACOs are implementing programs that include medication management, prevention of emergency department visits and hospital readmissions, and management of high-need, high-cost patients.

What is the status of electronic health records?

The Office of the National Coordinator for Health Information Technology, created in 2004, is the principal federal entity charged with the coordination of nationwide efforts to implement and advance the use of health information technology and the electronic exchange of health infor-mation. In 2017, an estimated 96 percent of nonfederal acute care hospitals and 86 percent of office-based physicians had adopted a "certified" electronic health record (EHR) system. Eighty percent of hospitals and 54 percent of physician offices had adopted an EHR with advanced ca-pabilities, such as the ability to track patient demographics, list medications, store clinician notes, and track medication orders, laboratory tests, and imaging results.[41,42]

The 21st Century Cures Act, passed in 2016 to promote the use of EHRs overall, requires that all health care providers make electronic copies of patient records available to patients, at their request, in machine-readable form.

How are costs contained?

Annual per capita health expenditures in the United States are the highest in the world (USD $11,172, on average, in 2018), with health care costs growing between 4.2 percent and 5.8 percent annually over the past five years.[43]

Private insurers have introduced several demand-side levers to control costs, including tiered provider pricing and increased patient cost-sharing (for example, through the recent proliferation of high-deductible health plans). Other levers include price negotiations, selective provider contracting, risk-sharing payments, and utilization controls.

The federal government controls costs by:

- setting provider rates for Medicare and the Veterans Health Administration
- capitating payments to Medicaid and Medicare managed care organizations
- capping annual out-of-pocket fees for beneficiaries enrolled in Medicare Advantage plans and individuals enrolled in marketplace/exchange plans
- negotiating drug prices for the Veterans Health Administration.

However, since most Americans have private health insurance, there are limited options available to the federal government. The ACA introduced cost-control levers for private insurers offering marketplace coverage, requiring that insurers planning to significantly increase plan premiums submit their prospective rates to either the state or the federal government for review.

State governments try to control costs by regulating private insurance, setting Medicaid provider fees, developing preferred-drug lists, and negotiating lower drug prices for Medicaid. Maryland and Massachusetts estimate total statewide health expenditures and set annual growth benchmarks for health care costs across payers. In those states, health care entities are required to implement performance improvement plans if they do not meet the benchmark.

Attempts to contain pharmaceutical spending are limited to a few mechanisms:

- The prices private health plans pay for prescription drugs are based on formularies.
- Pharmacy benefit managers are tasked with negotiating drug prices and rebates with manufacturers on behalf of private insurers.
- Volume-based rebates are commonly used by payers and manufacturers to offset the prices of drugs with therapeutic substitutes.
- Prior authorizations and step therapy encourage the use of lower-cost alternatives.

Among public payers, the Veterans Health Administration receives the deepest discounts for medicines. The agency is legally entitled to a minimum 24 percent discount from the nonfederal average manufacturer price and can choose to negotiate deeper discounts with manufacturers. Medicaid also is legally entitled to a discounted price and can negotiate further discounts.[44] Medicare, the largest buyer of prescription drugs, does not negotiate drug costs with manufacturers.

What major innovations and reforms have recently been introduced?

Medicare and Medicaid Innovations. The Affordable Care Act ushered in sweeping insurance and health system reforms aimed at expanding coverage, addressing affordability, improving quality and efficiency, lowering costs, and strengthening primary and preventive care and public health. The most important engine for innovation is the new Center for Medicare and Medicaid Innovation. The ACA allocated $10 billion over 10 years to the agency with the mandate to conduct research and development that can improve the quality of Medicare and Medicaid services, reduce their costs, or both.

If initiatives undertaken by the Center for Medicare and Medicaid Innovation are certified by federal actuaries as improving quality of care at the same cost—or maintaining quality while reducing health care costs—the U.S. Secretary of Health and Human Services has the authority to spread these initiatives, without congressional approval, throughout the Medicare and Medicaid programs.

The Trump administration has rolled out several other changes to the Medicare and Medicaid programs. These include the 2019 announcement of Primary Care First, a new voluntary payment model intended for launch in 2021 that aims to simplify primary care physician payments. In addition, since 2018, several states have instated a requirement for able-bodied individuals to document that they are meeting minimum work requirements to qualify for or keep their Medicaid coverage.

Changes to the Affordable Care Act. As of 2020, most of the ACA's provisions remain the law of the land. However the Trump administration has canceled some consumer protections through regulatory and executive actions. For example, in 2019, the individual mandate, the financial penalty for not having health insurance, was removed. In addition, through executive orders enacted in 2017 and 2018, the administration allowed states to offer alternative, lower-cost, minimally regulated insurance plans in their marketplaces that do not meet the minimum requirements of the ACA.

Cost Control Initiatives. The administration has also announced efforts to address high health care prices, especially concerning prescription drugs. Two bills passed in 2018 banned so-called "gag clauses" in contracts between pharmacies and pharmacy benefit managers. These clauses prevented pharmacists from informing customers when the cash price (without billing insurance) for a drug is lower than the insurance-negotiated price. In addition, to address hospital price transparency, federal rules require all hospitals to post their charges for medical procedures online and update the list at least once a year.

The past few years have also seen employers, which provide health insurance for approximately half of Americans, taking strides to lower health care costs by eliminating "middleman" agents—such as insurance companies and pharmaceutical benefit managers—from the health care financing chain. Some larger employers have joined with others to form their own nonprofit health care corporations, with the joint venture between Amazon, Berkshire Hathaway, and J.P. Morgan being one prominent example.[45] Other firms, such as Apple, are hiring providers directly to deliver care to their employees at on-site health clinics.[46]

REFERENCES

1. E. R. Berchick et al., *Health Insurance Coverage in the United States: 2018—Current Population Reports* (U.S. Census Bureau, Nov. 2019), https://www.census.gov/content/dam/Census/library/publications/2019/demo/p60-267.pdf.
2. J. Rovner, "The Complicated, Political, Expensive, Seemingly Eternal US Healthcare Debate Explained," *BMJ* 367 (Oct. 10, 2019): l5885.
3. Berchick et al., *Health Insurance Coverage in the United States: 2018.*
4. Kaiser Family Foundation. State Health Facts – Medicaid Managed Care State-Level Enrolment Data. (Kaiser Family Foundation, 2019) https://www.kff.org/data-collection/medicaid-managed-care-market-tracker/.
5. Centers for Medicare and Medicaid Services. Federal Fiscal Year (FFY) 2018 Statistical Enrollment Data System (SEDS) Reporting. (Centers for Medicare & Medicaid Services, 2019) https://www.medicaid.gov/sites/default/files/2019-12/fy-2018-childrens-enrollment-report.pdf.
6. S. R. Collins, H. K. Bhupal, and M. M. Doty, *Health Insurance Coverage Eight Years After the ACA: Fewer Uninsured Americans and Shorter Coverage Gaps, But More Underinsured* (Commonwealth Fund, Feb. 2019). https://www.commonwealthfund.org/publications/issue-briefs/2019/feb/health-insurance-coverage-eight-years-after-aca.
7. G. A. Cuckler et al., "National Health Expenditure Projections, 2017–26: Despite Uncertainty, Fundamentals Primarily Drive Spending Growth," *Health Affairs* 37, no. 3 (March 2018): 482–92.
8. Agency for healthcare Research and Quality, *Medical Expenditure Panel Survey Insurance Component 2018 Chartbook,* AHRQ Publication No. 19-0077 (AHRQ, Sept. 2019), https://meps.ahrq.gov/data_files/publications/cb23/cb23.pdf.
9. National Conference of State Legislatures. State Employee Health Benefits, Insurance and Costs. (NCSL, Sept. 16, 2018), http://www.ncsl.org/research/health/state-employee-health-benefits-ncsl.aspx.
10. G. Jacobson, A. Damico, and T. Neuman, *Medicare Advantage 2019 Spotlight: First Look* (Kaiser Family Foundation, Oct 16, 2018), https://www.kff.org/medicare/issue-brief/medicare-advantage-2019-spotlight-first-look/.
11. M. Freed, T. Neuman, and G. Jacobson, *Drilling Down on Dental Coverage and Costs for Medicare Beneficiaries* (Kaiser Family Foundation, March 13, 2019), https://www.kff.org/medicare/press-release/most-medicare-beneficiaries-lack-dental-coverage-and-many-go-without-needed-care/.
12. Kaiser Family Foundation, *State Health Facts – Medicaid Benefits: Dental Services* (Kaiser Family Foundation, 2019), https://www.kff.org/medicaid/state-indicator/dental-services/.
13. T. Rice et al., "Revisiting Out-of-Pocket Requirements: Trends in Spending, Financial Access Barriers, and Policy in Ten High-Income Countries," *BMC Health Services Research* 18, no.1 (May 2018): 371.
14. Organisation for Economic Co-operation and Development, Out-of-Pocket Spending: Access to Care and Financial Protection. (OECD, April 2019) https://www.oecd.org/health/health-systems/OECD-Focus-on-Out-of-Pocket-Spending-April-2019.pdf.
15. Health Resources and Services Administration, *HRSA Fact Sheet FY2018* (Sept. 30, 2018), https://data.hrsa.gov/data/fact-sheets.
16. Centers for Medicare and Medicaid Services (CMS), *2019 Medicare Parts A & B Premiums and Deductibles* (Oct. 12, 2018), https://www.cms.gov/newsroom/fact-sheets/2019-medicare-parts-b-premiums-and-deductibles; CMS, "Medicare Costs at a Glance" (2019), https://www.medicare.gov/your-medicare-costs/medicare-costs-at-a-glance; CMS, "Prescription Drugs (Outpatient)" (2019), https://www.medicare.gov/coverage/prescription-drugs-outpatient; CMS, "Yearly Deductible for Drug Plans (2019), https://www.medicare.gov/drug-coverage-part-d/costs-for-medicare-drug-coverage/yearly-deductible-for-drug-plans; and Kaiser Family Foundation, *An Overview of the Medicare Part D Prescription Drug Benefit* (Nov. 13, 2019), https://www.kff.org/medicare/fact-sheet/an-overview-of-the-medicare-part-d-prescription-drug-benefit/.
17. J. Cubanski, A. Damico, and T. Neuman, *Medicare Part D: A First Look at Prescription Drug Plans in 2019* (Kaiser Family Foundation, Oct. 16, 2018), https://www.kff.org/medicare/issue-brief/medicare-part-d-a-first-look-at-prescription-drug-plans-in-2019/.
18. G. Jacobson et al., *A Dozen Facts About Medicare Advantage in 2019* (Kaiser Family Foundation, Jun 6, 2019), https://www.kff.org/medicare/issue-brief/a-dozen-facts-about-medicare-advantage-in-2019/.
19. Medicaid.gov; and T. Brooks, L. Roygardner, and S. Artiga, *Medicaid and CHIP Eligibility, Enrollment, and Cost Sharing Policies as of January 2019: Findings from a 50-State Survey* (Kaiser Family Foundation, March 27, 2019), https://www.kff.org/report-section/medicaid-and-chip-eligibility-enrollment-and-cost-sharing-policies-as-of-january-2019-findings-from-a-50-state-survey-premiums-and-cost-sharing/.
20. Centers for Medicare and Medicaid Services (CMS), "Out-of-Pocket Maximum/Limit" (2020), https://www.healthcare.gov/glossary/out-of-pocket-maximum-limit/; CMS, "Health Coverage for American Indians and Alaska Natives" (2020), https://www.healthcare.gov/american-indians-alaska-natives/; CMS, "Cost-Sharing Reductions" (2020), https://www.healthcare.gov/lower-costs/save-on-out-of-pocket-costs/.
21. Association of American Medical Colleges, *Medical Student Education: Debt, Costs, and Loan Repayment Fact Card* (Oct. 2019), https://store.aamc.org/downloadable/download/sample/sample_id/296/.
22. C. K. Kane, "Updated Data on Physician Practice Arrangements: For the First Time, Fewer Physicians Are Owners Than Employees," *American Medical Association Policy Research Perspectives* (AMA, July 2019), https://www.ama-assn.org/system/files/2019-07/prp-fewer-owners-benchmark-survey-2018.pdf.
23. A. Rama, "Payment and Delivery in 2018: Participation in Medical Homes and Accountable Care Organizations on the Rise While Fee-for-Service Revenue Remains Stable," *American Medical Association Policy Research Perspectives* (AMA, Sept 2019), https://www.ama-assn.org/system/files/2019-09/prp-care-delivery-payment-models-2018.pdf.
24. Kane, "Updated Data on Physician Practice Arrangements."
25. M. M. Doty et al., "Primary Care Physicians' Role in Coordinating Medical and Health-Related Social Needs in 11 Countries," *Health Affairs* 39, no.1 (Jan. 2020): 115–23.
26. Urgent Care Association. Urgent Care Association Industry White Paper – The Essential Role of the Urgent Care Center in Population Health. (Urgent Care Association, Nov. 2019), https://www.ucaoa.org/Resources/Industry-Reports/White-Paper.
27. American Hospital Association, *Fast Facts on US Hospitals, 2020* (AHA, Jan. 2020), https://www.aha.org/statistics/fast-facts-us-hospitals.
28. T. Rice et al., "United States of America: Health System Review," *Health Systems in Transition* 15, no. 3 (2013): 1–431, http://www.euro.who.int/__data/assets/pdf_file/0019/215155/HiT-United-States-of-America.pdf.
29. Mental Health America. The Federal And State Role In Mental Health. (Mental Health America, 2019) http://www.mentalhealthamerica.net/issues/federal-and-state-role-mental-health.
30. K. Tuck and E. Smith, *Behavioral Health Coverage in Medicaid Managed Care* (Institute for Medicaid Innovation, April 2019) https://www.medicaidinnovation.org/_images/content/2019-IMI-Behavioral_Health_in_Medicaid-Report.pdf.
31. L. Harris-Kojetin et al., "Long-Term Care Providers and Services Users in the United States, 2015–2016," *Vital Health Statistics* 3, no. 43, DHHS Publication No 2019-1427 (National Center for Health Statistics, Feb. 2019), https://www.cdc.gov/nchs/data/series/sr_03/sr03_43-508.pdf.

32. Robert Wood Johnson Foundation, *What Is the National Quality Strategy?* (RWJF, Jan. 1 2012), https://www.rwjf.org/en/library/research/2012/01/what-is-the-national-quality-strategy-.html.
33. Agency for Healthcare Research and Quality, *2018 National Healthcare Quality and Disparities Report* (Agency for Healthcare Research and Quality, Oct. 2019), https://www.ahrq.gov/research/findings/nhqrdr/nhqdr18/index.html.
34. Ibid.
35. Ibid.
36. Health Resources and Services Administration, *HRSA Fact Sheet FY2018.*
37. J. Curtis and Holly Lang, *Hospital Community Benefit Dashboard: Advancing Health Equity and Community Engagement* (Community Catalyst, July 2018), https://www.communitycatalyst.org/resources/publications/document/CC-HospitalCommenefitDashboard-Report-F2.pdf.
38. D. Muhlestein et al., "Recent Progress in the Value Journey: Growth of ACOs and Value-Based Payment Models in 2018," *Health Affairs Blog,* Aug. 14, 2018, https://www.healthaffairs.org/do/10.1377/hblog20180810.481968/full/.
39. D. Muhlestein et al., "Growth of ACOs and Alternative Payment Models in 2017," *Health Affairs Blog,* June 28, 2017, https://www.healthaffairs.org/do/10.1377/hblog20170628.060719/full/.
40. National Association of ACOs, https://www.naacos.com/.
41. Office of the National Coordinator for Health Information Technology, "Non-federal Acute Care Hospital Electronic Health Record Adoption," *Health IT Quick-Stat,* no. 47 (U.S. Department of Health and Human Services, Sept. 2017), https://dashboard.healthit.gov/quickstats/pages/FIG-Hospital-EHR-Adoption.php.
42. Office of the National Coordinator for Health Information Technology, "Office-based Physician Electronic Health Record Adoption," *Health IT Quick-Stat,* no. 50 (U.S. Department of Health and Human Services, Jan. 2019), https://dashboard.healthit.gov/quickstats/pages/physician-ehr-adoption-trends.php.
43. M. Hartman et al., "National Health Care Spending in 2018: Growth Driven by Accelerations in Medicare and Private Insurance Spending," *Health Affairs* 39, no.1 (Jan. 2020): 8–17.
44. Rice et al., "United States of America: Health System Review."
45. Z. Tracer, "Amazon-Berkshire-JPMorgan Health Venture Takes Aim at Middlemen," *Bloomberg Business,* June 24, 2018, https://www.bloomberg.com/news/articles/2018-06-24/amazon-berkshire-jpmorgan-health-venture-takes-aim-at-middlemen.
46. Willis Towers Watson, *Best Practices in Health Care Employer Survey Report,* Feb. 1, 2018, https://www.willistowerswatson.com/en-US/insights/2018/01/2017-best-practices-in-health-care-employer-survey.

Table 1. Primary and Secondary Health Insurance Coverage and Financing

Country	Type of System	Universal Coverage?	Primary Health Insurance: Government Role — National/Federal	Primary Health Insurance: Government Role — State/Regional	Primary Health Insurance: Government Role — Local	Primary Health Insurance: Financing	Primary Health Insurance: National Benefit Package?	Secondary (Voluntary) Health Insurance
Australia	Medicare: national public health insurance	Yes, automatic coverage	Funding and indirect support to states and health professions, including hospital cofunding; subsidized primary care and prescription drugs; regulation of private insurance, pharmaceuticals, therapeutic goods.	Ownership and management of public hospitals, ambulances, public dental care, primary and preventive care, mental health care; some cofunding of health services; regulation of private hospitals, pharmacy locations, workforce.	Community health and preventive health programs.	Mainly general tax revenue; earmarked income tax (Medicare levy).	Yes. Excluded: adult dental care, most vision care, prescription drugs not approved for cost-effectiveness, long-term care (provided by state/local governments), medical equipment such as wheelchairs (state-provided).	Complementary and supplementary coverage for increased choice, faster access to nonemergency services, and rebates. 46% have hospital coverage; 55% have general treatment coverage for dental, physiotherapy, chiropractic, podiatry, home nursing, and vision services. Government provides means-tested tax rebates toward coverage. High-earners face penalty for not having private insurance.
Brazil	Sistema Único de Saúde: tax-funded, government-administered national health system with decentralized service delivery.	Yes, automatic, universal access to public providers.	National coordination of health system, including policy development, planning, financing, auditing, control.	Administration and delivery of care, including some specialty care; some hospital ownership; regional governance; coordination of strategic programs (high-cost medicines, organ transplants, blood therapy); delivery of some specialized services.	Municipal health departments: administration, cofinancing and delivery of primary care and some specialty and hospital care; some hospital ownership.	Tax revenues and social contributions from federal, state, municipal governments.	Yes. Separate benefit packages for national health insurance (SUS) and private plans; SUS excludes nonessential medications, private plans exclude drug coverage and some outpatient services.	23% have private medical-hospital plans, with services provided at plans' own facilities or accredited health care organizations, or insurance that reimburses enrollees for purchased care. Most beneficiaries receive private insurance as job benefit.
Canada	Medicare: national public health insurance administrated by provinces/territories, each running own health plan.	Yes, automatic coverage after registration.	National legislation; cofunding for provincial/territorial insurance plans; administration of health care for First Nations and Inuit peoples, military servants and veterans, refugees, inmates; regulation of medical devices, pharmaceuticals; funding for research, some information technology systems.	Provinces/territories: main responsibility for health plan funding and administration and some provision of care, including provider contracting.	Some provinces: funding and delivery of hospital, community, and long-term care, mental health services, public health.	Mostly provincial/territorial general tax revenue; federal transfers.	No. Benefit package defined at provincial/territorial level but must cover medically necessary services. Generally excluded: prescription drugs, dental treatments, physiotherapy, psychologists, chiropractic care, cosmetic surgery.	67% have complementary for-profit coverage, mostly through employer, for noncovered benefits such as vision and dental care, outpatient prescription drugs, rehabilitation services, private hospital rooms.
China	Since 2016, two main programs covering 95% of population: 1) voluntary, residency-based, basic medical insurance; and 2) mandatory, employment-based program for urban residents with formal-sector jobs	Yes, for basic health care	National health policy and administration related to public health, medical care, health emergency response, family planning; financing, including premium subsidies; some hospital ownership; regulation, including drug pricing.	Provinces: organization, provision, financing (such as premium subsidies).	Prefectures, cities, counties, towns: organization and provision of care, financing (premium subsidies, medical financial assistance, subsidies to long-term care facilities); setting of fee schedules for public providers; setting of basic insurance benefit package; provider licensing and accreditation.	Urban employer-based insurance: mainly employer/employee payroll taxes, with minimal government funding. Residency-based Basic Medical Insurance: Individual premiums, mostly funded by central and local government subsidies.	No. Benefit package defined by local governments and typically exclude most dental and vision care, home care, hospice care, durable medical equipment. Preventive services provided through separate public program; maternity care being merged into basic medical insurance.	Complementary insurance by for-profit carriers covers cost-sharing and additional benefits not covered by insurance. Private insurance premiums account for 6% of total health expenditures.
Denmark	National health care system.	Yes, automatic coverage.	Regulation; central planning; funding (80% of health care).	Planning and delivery of specialty care, including ownership, management and financing of hospitals and majority of primary care, outpatient specialist care, physiotherapy, dental care, pharmaceuticals, specialized rehabilitation services.	Financing and delivery of long-term care, some dental care, school health care, home help, substance use treatment, public health, general rehabilitation, durable medical equipment, maternity care; cofunding of health care.	Mostly national income taxes; 20% from municipal taxes and state block grants.	No. Excludes adult dental care, nonspecialized long-term care and other services funded by municipalities.	42% purchase complementary nonprofit coverage for cost-sharing toward outpatient prescription drugs and dental care, and expanded covered benefits such as physiotherapy. In addition, 30% receive supplementary for-profit coverage, mainly through employer, for expanded access to private providers (such as for minor elective surgeries).
England	NHS England: national health care system.	Yes, automatic coverage.	Financing; regulation; national legislation; ownership of hospitals, ambulances, mental health, community services (NHS Trusts).	Clinical Commissioning Groups: responsibility for provision of services, including contracting and determining volume and scope of services covered.	Social (long-term) care financing; public health.	Mostly general tax revenue; 20% from national insurance, a payroll tax shared between employers and employees.	No. Clinical Commissioning Groups make local coverage decisions. Limited coverage of dental and vision care.	11% buy supplementary coverage for more rapid access to care, choice of specialists, and better amenities, especially for elective hospital procedures.
France	L'Assurance Maladie: statutory insurance provided through noncompetitive, employment-based funds. Tax-financed coverage for unemployed residents.	Yes, mandatory insurance.	National health strategy; raising of tax revenues; allocation of budgets to regions and across sectors; provider oversight; funding for home care and services for elderly, people with disabilities.	Planning and service delivery by regional health agencies, including coordination of population health, prevention, care delivery, public health, social care.	General councils, local authorities: funding for health and social care for elderly and disabled.	Employer/employee payroll tax; income taxes; general taxes; earmarked taxes.	Yes. Excludes nonmedical long-term care and social supports (covered separately).	95% have complementary coverage from nonprofit carriers, either through employer or means-tested government vouchers. Limited supplementary and complementary insurance offered by for-profit carriers.
Germany	Gesetzliche Krankenversicherung: statutory insurance provided by 109 nonprofit "sickness funds," covering 88% of population. High-income individuals and civil servants can opt out for fully substitutive private insurance, which covers 11% of population.	Yes, mandatory insurance.	Regulation of private insurers; supervision of self-governing sickness fund and provider associations.	Hospital planning and hopsital investment; education and training of health professionals.	Public health activities.	Sickness funds: compulsory wage contributions shared equally between employers and employees and distributed to sickness funds using risk-adjusted capitation; additional income-dependent contributions paid directly to sickness funds; general tax revenue. Private insurance: individual premiums.	Yes, mandatory minimum benefit package set by nongovernmental Federal Joint Committee for statutory insurers. Long-term care covered by separate statutory insurance scheme.	Sickness fund enrollees purchase supplementary or complementary policies covering minor benefits not covered by SHI, including some copayments and private hospital rooms.
India	Various insurance schemes: National Health Protection Scheme, hospital insurance for low-income people; Employees' State Insurance Scheme for higher-income people; state-based health insurance for low-income people; additional schemes for government, mine, factory, and railway workers and members of defense forces.	No, though national constitution requires government to ensure "right to health," including free care at public facilities. 37% of population has insurance; 40% of population (low-income people) has hospital coverage.	Financing; legislation; regulation.	Primary responsibility for organizing health services, including financing, regulation, direct provision/delivery of services, planning, quality control, provider supervision, safety-net programs.	Districts (Panchayati Raj institutions: governance and administration in rural villages, including primary health centers.	National Health Protection Scheme: federal and state taxes. Employees' State Insurance scheme: wage contributions from employees and employers; state taxes.	No. Benefit packages vary by scheme; some exclude outpatient care and nonessential prescription drugs. Long-term care generally not covered.	Limited role. Provides substitutive coverage for high-income urban populations.

Table 1. Primary and Secondary Health Insurance Coverage and Financing (continued)

	Primary Health Insurance							Secondary (Voluntary) Health Insurance
Israel	National insurance provided through four competing, nonprofit health plans.	Yes, mandatory insurance for all residents.	Legislation; distribution of national insurance budget to health plans through capitation; ownership of some providers; population health oversight; regulation of private insurance; setting of provider fees and cost control measures; monitoring of service provision and quality.	Implementation of national policies and strategies by regional administrative divisions of Ministry of Health.	Limited; some municipalities directly own hospitals and maternal and child health centers.	Earmarked income-related tax; general government revenue.	Yes. Excludes adult dental care, optometry, and hearing aids; institutional long-term care; infant developmental screenings and vaccinations; postpartum care; home care. Palliative and hospice covered separately.	Most citizens purchase voluntary insurance to: obtain services outside the benefit package, such as noncovered medications and adult dental care; extend individual NHI-covered services; get faster access and greater provider choice. 84% are enrolled in one of four national nonprofit plans; 57% covered through for-profit carriers; many have both.
Italy	National health service.	Yes, automatic coverage.	National policy, planning, and priority-setting; funding; setting of minimum benefit package; pharmaceutical pricing.	Regions and autonomous provinces: responsibility for planning, regulation, provision/ delivery of services.	Delivery of primary care, hospital and outpatient specialist care, public health care, and social care services by local health units; some hospital ownership.	National earmarked corporate and value-added taxes; general tax revenue; regional tax revenue.	Yes. Excludes adult dental care. Durable medical equipment and long-term care only covered for certain medical conditions.	10% have voluntary coverage, either complementary (for additional services not covered by national health service) or supplementary (for amenities like private hospital rooms and greater provider choice). Some policies also cover copayments for private services.
Japan	Statutory insurance, with mandatory enrollment in one of 47 residence-based insurance plans or one of 1,400+ employment-based plans. Separate public social assistance program for low-income people.	Yes, mandatory insurance.	Regulation of statutory insurers and providers; setting of provider fees; subsidies for local governments, insurers, providers.	Prefectures: implementation of national regulations; management of residence-based regional insurance; responsibility for regional care delivery.	Municipalities: partial responsibility for operation of residence-based Citizen Health Insurance Plans (collecting contributions, registering beneficiaries); health promotion activities.	General tax revenue; mandatory individual insurance contributions.	Yes. Excludes vision care for adults and children age 9 and older. Long-term care covered separately by national compulsory insurance program and cancer screenings by municipalities. Maternity care benefits are cash payments; local governments subsidize check-ups for pregnant women.	More than 70% of population has private insurance providing cash benefits in case of sickness, as supplement to life insurance.
Netherlands	Statutory, mandatory insurance offered through 11 private nonprofit carriers competing on national exchange.	Yes, mandatory insurance.	Insurance regulation and subsidies; national priority setting and legislation; monitoring of access, quality, costs; distribution of tax revenue to nonprofit statutory insurers and municipalities (block grants).		Delivery of most outpatient long-term services, including personal and home care and social supports; youth health services; preventive mental health care, vaccinations, infectious disease management, and health promotion programs.	Earmarked payroll tax (employers); community-rated insurance premiums (individuals); general tax revenue; government grants.	Yes. Excludes adult physiotherapy and dental care, some elective care, certain medical devices. Long-term care and social supports financed under national social insurance scheme partly funded by municipalities.	84% buy complementary coverage for benefits excluded from statutory package: dental care, alternative medicine, physiotherapy, eyeglasses, contraceptives, copayments for noncovered drugs.
New Zealand	National health care system.	Yes, automatic coverage.	National policy, including setting of public annual health budget and benefits package; primary funder and supplier of health care; regulation and monitoring.	District Health Boards: responsibility for planning, purchasing, and provision, as well as disability support services.		Mostly national general tax revenue.	Yes. Excludes optometry, adult dental care, and physiotherapy.	33% buy complementary coverage for cost-sharing, private outpatient specialist consultations, and elective surgery in private hospitals or supplementary coverage for faster access to nonurgent treatment.
Norway	National health care system, with regional/local provision.	Yes, automatic coverage.	Regulation and some direct funding and provision of services; responsibility for specialty care, including hospital services.	Regional Health Care Authorities: management of hospital and pharmacy trusts.	Primary, preventive, and nursing care; social care; long-term care.	Municipal and national general tax revenue and contributions to national insurance by employers and employees.	No. Generally excludes adult dental care and vision care. Local governments separately fund long-term care.	10% have supplemental coverage, mainly through employer, for quicker access to specialists and elective treatments.
Singapore	Multipayer, mixed insurance system: MediShield Life, universal basic health insurance for catastrophic expenses; MediSave, mandatory individual savings account for hospital and selected outpatient expenses; MediFund, safety net for low-income citizens; subsidies provided to all for care at public facilities and accredited private primary care facilities.	Yes, mandatory basic insurance (MediShield Life) and mandatory medical savings (MediSave).	All areas, including regulation, planning, financing, administration; some direct provision of services through public hospitals and clinics.			General tax revenue.	Yes. MediShield Life excludes cosmetic surgery and most maternity care (except treatments for serious complications related to pregnancy/ childbirth). Medisave can be used to pay for excluded services.	Coverage for private hospitals or care in private wards in public hospitals. 68% have an Integrated Shield Plan to supplement MediShield coverage. Additional forms of for-profit insurance, including employer coverage.
Sweden	National health care system, with decentralized service delivery.	Yes, automatic coverage.	Regulation; supervision; some funding.	Regions: responsibility for most financing, purchasing, and provision, as well as provider regulation.	Care of the elderly and people with disabilities, including long-term care.	Mainly regional and local general tax revenues. Some national income taxes and indirect taxes and grants.	No. Vision care and adult dental care are generally excluded from coverage (some subsidies available for the latter).	13% of workers ages 16 to 64 have supplementary coverage, mainly through their employers, for quicker access to specialists and elective treatment.
Switzerland	National health insurance provided by private nonprofit plans competing on regional exchanges.	Yes, mandatory private insurance.	Regulation of system financing; assurance of quality and safety of pharmaceuticals and medical devices; oversight of public health, research, training.	Cantons: regulation of provider oversight; capacity planning; financing through subsidies (institutions and individual premiums); health promotion activities.	Organization and provision of long-term care and social supports.	Community-rated individual premiums (no employer contribution); general taxes (mostly cantonal), social insurance contributions.	Yes. Excludes durable medical equipment; adult dental and vision care (unless medically necessary); mental health care not provided/ delegated by physicians; long-term services that are not medically necessary.	For-profit voluntary insurance for services not covered by mandatory insurance and free choice of hospitals/doctors and preferred hospital rooms.
Taiwan	National, single-payer, government-administered health insurance.	Yes, mandatory insurance.	Insurance administration (premium collection, risk-pooling, providing subsidies); provider payment and setting fee schedules; coverage decisions; setting annual global budget; some public hospital ownership.		Municipalities: ownership and operation of some hospitals; organization of long-term and social care.	Payroll-based, community-rated premiums; subsidies financed through general tax revenue, including tobacco tax, and lottery sales revenue.	Yes. Excludes long-term services (covered separately), vision care, some durable medical equipment.	For-profit insurers offer policies as riders to life and other nonmedical policies; mainly provides disease-specific cash indemnity payments for private hospital rooms or services not covered by national insurance.
United States	Mixed: Medicare, for adults age 65+ and certain residents with disability; Medicaid, for some low-income adults and children; Children's Health Insurance Program, for low-income children (CHIP); employer-sponsored private insurance; individual private insurance sold on exchanges; Veterans Health Administration and TRICARE, for members of military. No health coverage: 8.5% of population (2018).	No: 8.5% uninsured (2018).	National legislation and priority-setting; funding and administration of Medicare and military insurance; funding and care delivery for Veterans Health Administration; cofunding and regulation of Medicaid, CHIP; funding for public hospitals and clinics; subsidies for insurance premiums and cost-sharing for plans sold on exchanges; regulation; administration of federal marketplace for private insurance.	States: cofunding and administration of Medicaid and CHIP, including setting of benefit package; some direct provision of services (public hospitals); regulation of private insurance; funding for safety-net programs; provider licensing.	Public health activities; some hospital ownership; some safety-net programs.	Medicare: payroll tax shared by employees and employers; premiums; federal general tax revenue. Medicaid: Federal and state taxes. Private insurance: premiums paid to insurers; federal tax-financed subsidies for plans sold on exchanges.	No. Benefits depend on type of insurance. Traditional Medicare excludes outpatient prescription drugs, long-term care, dental and vision care, hearing aids. Federal mandatory benefit package for Medicaid excludes prescription drugs, physical therapy, vision, dental care, and other services (states have option to provide these). Private plans usually exclude dental and vision care. Marketplace plans must cover 10 "essential health benefits."	Medicare: one-third of beneficiaries have substitutive Medicare Advantage coverage that provides all-in-one coverage of hospital, physician, and most often also prescription drugs; 42% have standalone drug coverage; 25% purchase private Medigap insurance to pay for cost-sharing for covered benefits.

Table 2. User Fees and Safety Nets

Country	Physician visits		Hospital inpatient care	Prescription drugs	Caps on cost-sharing	Safety Nets/Cost-Sharing Exemptions
	Primary care	Specialist outpatient				
Australia	Mostly none; 14% percent charge fees, averaging AUD 31 (USD 22). Maximum fee: AUD 83.4 (USD 58).	Average: AUD 80 (USD 56) per visit. Maximum fee: AUD 83.4 (USD 58).	None at public hospitals (including inpatient pharmaceuticals). Varies in private hospitals.	Yes, up to maximum AUD 39.50 (USD 28) per prescription.	Yes, for pharmaceuticals. After reaching AUD 1,522 (USD 1,064) in out-of-pocket costs for year, copay is lowered to AUD 6 (USD 4.2) per prescription.	Two Medicare safety nets for high out-of-hospital costs; more generous for low-income people, seniors, caregivers. Lower prescription drug charges for low-income people; maximum AUD 6 (USD 4.2) per prescription and AUD 384 (USD268) per year. Cancer screenings and immunizations free of charge for certain populations.
Brazil	None through public system.	None through public system.	None through public system.	Public system: no charge for covered drugs. Farmácia Popular program: up to 90% discount on prescribed drugs for certain conditions; no cost for hypertension, diabetes, asthma.	None	None
Canada	None	None	None, including for inpatient drugs.	Varies	None	Some protection against outpatient drug costs through public programs for low-income people, children with disabilities, elderly (varies by province/territory).
China	Varies by location and type of provider. Average payment: CNY 7 (USD 2) per visit.	Varies by location and type of provider. Average: CNY 58 (USD 16) per consultation.	Varies. Average: CNY 3,917 (USD 1,103) per hospitalization.	Yes; lower for drugs prescribed by primary care clinician than by specialist (average of CNY 11 (USD 3) vs. CNY 52 (USD 15)).	None	Medical financial assistance program for catastrophic out-of-pocket expenses. No copays for preventive services for children, elderly, other priority populations.
Denmark	None	None for referred visits for 98% of patients. Copayments required for all nonreferred visits (amounts vary).	None	Yes	No overall cap, but copayments decrease as out-of-pocket prescription drug spending rises. No drug cost-sharing above DKK 4030 (USD 548) annual limit.	Lower drug copays for children; no drug cost-sharing for terminally ill patients. No cost-sharing: children's dental care, childhood immunizations, cancer screenings, maternity care, hospice care, permanent home care.
England	None	None	None	GBP 8.80 (USD 12.5) per prescription.	No general cap. Those needing large number of prescription drugs can buy prepaid certificates for unlimited use costing GBP 29.10 (USD 41.4) per quarter or GBP 104 (USD 148) per year.	Drug cost-sharing exemptions: low-income people, elderly, children, pregnant women, new mothers, and some with disability or chronic illness. No dental care copays: children/youth, students, pregnant women, recent mothers, prisoners, people with low income. No copays for vision tests: children/youth, older adults, people with low income.
France	Copay of EUR 1 (USD 1.26), plus 30% coinsurance and balance billing (if any). Typical total patient fee: EUR 7.5 (USD 9.4) for visit with registered GP or specialist.	Copay of EUR 1 (USD 1.26), plus 30% coinsurance and balance billing (if any). Typical total patient fee: EUR 13.5–20.4 (USD 17–25.8) for specialist visit (second opinion or recurrent visits).	Copay: EUR 18 (USD 23) per day. Coinsurance: 20%.	Copayment: EUR 0.5 (USD 0.63) per box. Coinsurance: 0% for highly effective drugs; 15%–100% for other drugs, depending on therapeutic value. Higher copayment applies if patient refuses generic version.	No overall caps, but physician visit copays capped at 50 EUR (USD 63), plus 50 EUR (USD 63) per year for nurse visits, transportation, prescription medications, and physiotherapy. Hospital coinsurance applies to maximum of 31 days per year.	Copay exemptions for low-income people and children, as well as some surgical interventions. Coinsurance exemptions: people with low income, chronic illness, or disability. No user charges for maternity or newborn care and some preventive care.
Germany	None	None	EUR 10.00 (USD 12.84) per day.	Covered drugs: 10%, with EUR 5.00 (USD 6.42) minimum and EUR 10.00 (USD 12.84) maximum (or price of drug), plus difference between price and reference price. No copay if price is 30% lower than reference price.	Hospital inpatient costs capped at 28 days per year. Overall medical costs capped at 2% of household income; 1% of income for people with chronic illness.	Children under 18 exempt from cost-sharing.
India	Public facilities: None. Private facilities: Varies (not regulated).	Public facilities: None. Private facilities: Varies (not regulated).	Public facilities: None. Private facilities: Varies (not regulated).	Essential medicines: Free. Other medicines: Full cost.	None. Significant reliance on out-of-pocket payments (70% of total health expenditures).	Various government-financed insurance schemes for vulnerable population groups to improve hospital access and reduce out-of-pocket payments.
Israel	None	Copays up to quarterly ceilings, from NIS 25–34 (USD 6.5–9) for healthy adults and children.	None, except for complex nursing care.	Minimum coinsurance of NIS 17 (USD 4.5) per prescription; maximum 15% for patented drugs, 10% for generics.	No overall cap; caps on out-of-pocket costs for prescription drugs (chronic illness only) and specialist visits (at household level).	No cost-sharing for preventive care. Specialists: no copays for older adults receiving public income support, people with severe illness, low-income children; monthly caps for chronically ill. Prescription drugs: Holocaust survivors and people with severe illness exempt from copays; discounts on coinsurance for older adults and WWII veterans; monthly coinsurance caps for people with chronic illness.
Italy	None	National rates: First appointment, 20.66 EUR (USD 22); follow-up 12.91 EUR (USD 19). Regions can set higher rates.	Public and private hospitals: None if care provided with public financing. Patients pay for private services delivered at both public and private hospitals.	Tier 1 drugs: None for generics; patient pays difference between reference price and market price for brand-name drugs. Additional copays of EUR 1-3 (USD 1.1– 3.3) per box in some regions. Tier 2 drugs: Patients pay full price.	None. Tax credit available when annual out-of-pocket spending exceeds EUR 129 (USD 144).	Exemptions from cost sharing: low-income older adults, low-income children, pregnant women, patients with chronic conditions/disabilities, rare diseases
Japan	30% coinsurance.	30% coinsurance.	30% coinsurance.	30% coinsurance.	Monthly individual out-of-pocket maximum and annual household out-of-pocket maximum for health and long-term care (JPY 340,000–2.12 million, USD 3,400–21,200), both varying by age and income. Additional tax credits available for high health expenditures.	Reduced cost-sharing for young children, low-income older adults, those with specific chronic conditions, mental illness, and disabilities. No user charges for low-income people receiving social assistance
Netherlands	None	Full cost up to mandatory annual deductible of EUR 385 (USD 487).	Full cost up to deductible.	Full cost up to deductible. Additional copays for nonpreferred drugs, reference priced-drugs, and drugs with therapeutic substitute in formulary.	None. Annual deductible of EUR 385 (USD 465) covers most cost-sharing.	Children exempt from all cost-sharing, including dental care. No cost-sharing for preventive services.
New Zealand	NZD 15–50 (USD 10–34) for adults under age 65.	None in public hospitals. Patients pay full cost for private practitioners.	None in public hospitals. Some user charges for crutches or other devices.	For drugs on national formulary, copayment is NZD 5 (USD 3.40).	No overall caps for medical care, but prescription drug copays capped at 20 prescriptions per year per family.	Primary care: lower copays for older adults, people with low-income, and people with 12+ GP visits per year; no copays for children under 14. Immunizations and cancer screening services usually free.
Norway	NOK 155–334 (USD 19–42).	Physicians contracted with national insurance: NOK 245–370 (USD 30–46).	No.	For drugs on national formulary, up to NOK 520 (USD 65) for up to three months.	Out-of-pocket maximum toward tests, visits, and prescription drugs is NOK 2,258 (USD 281) per person.	No cost-sharing for children under 16 for outpatient and dental care; children under 18 for mental health care; or pregnant women. None for preventive care, treatment for some communicable diseases, and work-related injuries. No cost-sharing for essential drugs or nursing care for retirees or people with disability. Monthly cash benefits for individuals with permanent illness, injury, or disability.
Singapore	Adults in public clinics: SGD 13.20 (USD 9.60) per consultation.	Subsidized patients: SGD 39 (USD 28.60). Private patients: SGD 79.20–146.60 (USD 58.10–107.50) for consultations in public facilities.	MediShield Life: Deductible of (SGD 1,500–3,000 (USD 1,095–2190) plus 3%–10% coinsurance. Total cost varies by ward type.	Essential/standard drugs: Up to 50% of costs. Additional subsidy based on income from Medication Assistance Fund for high-cost nonstandard drugs.	None.	Lower primary care copays for children and elderly. Subsidies for hospital care based on ward class, income, and residency status and for specialist outpatient care based on residency status. MediFund is safety net for low-income people. Community Health Assist Scheme provides income-based subsidies for citizens towards care at private GP and dental clinics. Government supplements/top-ups to MediSave accounts of low-income people, elderly, newborns.
Sweden	SEK 0–300 (USD 0–33), depending on region.	SEK 0–400 (USD 0–33); lower with primary care referral.	SEK 50–100 (USD 5.50–11.00) per day for adults.	For drugs covered by National Drug Benefits Scheme, patients pay full cost up to SEK 1,125 (USD 123) per year, with decreasing copays until subsidy reach 100%. Patients pay full price for noncovered drugs.	Annual maximum for outpatient visits is SEK 1,150 (USD 125); for drugs, SEK 2,250 (USD 246) for adults.	No copays for outpatient visits or prescription drugs for children/youth. No outpatient visit copays for older adults. No copays for preventive services, including maternity care, immunizations, cancer screenings. Dental care free up to age 23.
Switzerland	Full cost up to deductible, plus 10% coinsurance. Average per visit: CHF 158 (USD 131).	Full cost up to deductible, plus 10% coinsurance. Average per visit: CHF 245 (USD 202).	Full cost up to deductible, plus 10% coinsurance and CHF 15 (USD 12) copay per day.	Full cost up to deductible, plus 10% coinsurance (20% if not generic).	Yes; for primary care, specialty care, and prescription drug costs, annual cap is CHF 3,200 (USD 2,645) per adult.	No cost-sharing for maternity care and some preventive care; no copay for inpatient care for children and young adults in school up to age 25. Annual cap for primary and specialty care and prescription drugs lower for children under 18 (maximum CHF 950, USD 785).
Taiwan	With referral: TWD 50–170 (USD 1.65–5.61). Without referral: TWD 50–420 (USD 1.65–13.86).	With referral: TWD 50–170 (USD 1.65–5.61). Without referral: TWD 50–420 (USD 1.65–13.86).	Coinsurance of 5%–30% depending on duration of stay and bed type. Maximum coinsurance: TWD 38,000 (USD 1,254) per episode.	For NHI covered drugs, copay is TWD 200 (USD 6.64) per outpatient visit, regardless of number of drugs prescribed.	None for overall medical costs. Annual cap on all inpatient stays of same diagnosis of TWD 64,000 (USD 2,112).	Copayment and coinsurance exemptions apply to childbirth and to patients with low income, children under 3, residents in remote areas, and patients with any of 30 catastrophic diseases or conditions.
United States	Medicare: Full cost up to $185 annual deductible plus 20% coinsurance. Medicaid: Maximum USD 4 copayment or 10%/20% coinsurance. Private insurance: Varies; usually full cost up to deductible (average for single person was $1,846 in 2018).	Medicare: Full cost up to $185 annual deductible plus 20% coinsurance. Medicaid: Maximum $4 copayment or 10%/20% coinsurance. Private insurance: Varies; usually full cost up to deductible (average for single person was $1,846 in 2018).	Medicare: Full cost up to $1,364 deductible for days 0–60; thereafter, $0 per day. Days 61-90: $341 per day. Days 90+: $682 per day. Medicaid: Maximum $75 copay or 10%/20% coinsurance per stay. Private insurance: Varies.	Medicare (Part B): 20% coinsurance for drugs administered in physician offices Medicare (Part D): Copays and coinsurance vary by drug plan; $0–$5 for preferred generics, up to 50% for nonpreferred drugs. Medicaid: Maximum allowable copay $4 for preferred drugs; between $8 and 20% coinsurance for nonpreferred drugs.	Generally none, with exceptions. Medicare Advantage (Part C, supplemental private plan): Annual medical cap of USD 6,700. Medicare (Part D): Patients pay full cost up to maximum deductible of $415; thereafter, 25% of costs up to $8,140; thereafter 5% of costs. Medicaid/CHIP: Total family maximum of 5% of household income per year. Private plans: Individual, $7,900 per year; family, $15,800.	Private marketplace plans: Premium subsidies and lower cost-sharing for families with low/middle income. Medicare: Certain preventive services exempt. For enrollees with low income, premium and cost-sharing assistance available for private drug plans, and Part B premiums waived. Medicaid and CHIP: Generally no cost-sharing for children in families below 138% of poverty level; no copays for any children in some states. Also exemptions for terminally ill and institutionalized individuals. All private plans: No cost-sharing for some preventive services. Additional: Some providers offer free/subsidized care to patients with low income. Tax-funded safety-net programs in some states.

Note: For OECD countries, currency conversions to U.S. dollars have been adjusted for differences in cost of living between countries, using the OECD's purchasing power parity rates (as of 2017). Currency conversions are as of 2019. For further details regarding conversion rates and methods, please see the individual country profiles.

Table 3. Health Care Delivery

	Primary care physicians				Hospitals (1) ownership (2) payment for inpatient acute medical care	
Country	**Ownership**	**Payment**	**Gatekeeping**	**Patient registration required**	**Ownership**	**Financing**
Australia	Private.	Mainly FFS, with some PFP.	Yes.	No.	Mostly public (65% of beds); rest are for-profit or nonprofit.	Public: Mainly activity-based payments (DRGs); rest global budgets. Private: Mainly FFS.
Brazil	Mostly Family Health Teams, which are public. Some private facilities run by health plans.	Family Health Teams: Salaried, with some PFP.	Yes.	No, but Family Health Teams are assigned list of families in their region.	Majority of capacity is public (71% of beds); rest is private, mostly for-profit.	Federal government pays municipalities/states prospective risk-adjusted diagnosis-based payments; municipalities/states then pay hospitals FFS. Separate volume-based payments for complex procedures and high-cost drugs.
Canada	Private.	Mostly FFS. Some receive alternative payments (e.g., capitation) or salaries.	Yes, through provider financial incentives.	Generally no; varies by province.	Varies by province; mostly public in some, mostly nonprofit in others.	Mostly global budgets, with some case-based payment in certain provinces.
China	Private/public mix.	Private: FFS. Public: FFS and government subsidies. GPs employed by hospitals received salaries and activity-based payments.	Generally no.	No.	Mainly public.	Mainly FFS, with DRG, capitation, and global budgets in a few regions.
Denmark	Private.	Mostly FFS; capitation for rest.	98% of people choose gatekeeping model where referrals required for most specialties (but not hospital care).	98% of people choose model requiring patient registration.	Mainly public.	Mainly global budgets and case-based payments. Some bundled and value-based payment pilots at local level.
England	Mainly private	Mix of capitation, FFS, PFP; 22% are salaried, stand-in GPs employed at private group practices.	Yes.	Yes.	Mainly public	Mostly case-based payments; some local bundled-payment pilots.
France	Private.	Mix of FFS, P4P, and capitated annual bonus for chronic disease management. Some regional agreements for salaried GPs.	Only voluntary gatekeeping, incentivized through higher patient cost-sharing for nonreferred services.	Registration is voluntary but financially incentivized.	Mostly public (65% of capacity); rest are private for-profit (25%) and nonprofit.	Mainly case-based DRG payments. Separate reimbursement for expensive drugs and devices.
Germany	Private.	FFS, regionally negotiated, up to maximum number of services per quarter.	Generally no. Sickness funds required to offer option to enroll in family physician model with gatekeeping.	Only in optional family physician models.	Mix of public and private nonprofit and for-profit.	Case-based DRG payments. Supplementary fees for highly specialized and expensive services and technologies (e.g., chemotherapy).
India	Mainly public, but many private providers, regulated and unregulated.	Public: Salaried. Private: FFS.	In principle, for public sector, but largely not functional. None for private.	No.	Mostly private for-profit; some nonprofit and public facilities.	Public: Global budgets. Private: FFS.
Israel	Private nonprofit.	Salaried by health plan or health plan contractors; paid through capitation and some FFS.	Only in one-quarter of health plans.	Only in half of health plans.	Mostly public or private nonprofit; remainder are for-profit.	Inpatient medical care: Mainly per-diem. Inpatient procedures: Per diem or activity-based, procedure-related group payments.
Italy	Private.	Mainly capitation; some FFS and PFP.	Yes.	Yes.	Mostly public.	Mainly prospective case-based payments (except for hospitals owned by regional authorities) and global budgets.
Japan	Mostly private.	Mostly FFS; some per-case and monthly payments.	Generally no. Extra charges for unreferred care at large hospitals and academic centers.	No.	Mainly private nonprofit; 15% public.	Most acute care hospitals receive case-based (diagnosis-procedure combination) payments; FFS for remainder.
Netherlands	Private.	Mix of capitation and FFS for "core" activities; some bundled payments and PFP.	Yes.	No, but most people register voluntarily.	Private nonprofit.	Case-based payments (DRG) within a global budget.
New Zealand	Private. Most belong to primary health organization (provider network).	Mix of capitation and FFS, with some incentive payments paid to primary health organizations.	Yes.	Not mandatory, but GPs must have a formal list of registered patients to be eligible for government subsidies.	Mostly public hospitals.	Mainly through case-based payments from public hospital budget.
Norway	Mostly private.	Mix of capitation, user charges, and FFS, which includes some incentives for care coordination and care for complex patients.	Yes.	Automatic GP registration, with option for patient to choose and change provider. Patients may opt out.	Mostly public. Some nonprofit and for-profit facilities.	Block grants and activity-based (DRG) payments.
Singapore	Mostly private.	Mostly FFS.	No formal gatekeeping but lower patient cost-sharing with referrals in public system and accredited private primary care providers.	No.	Mainly public; remainder mostly for-profit.	Case-based payments (DRGs) within global budget.
Sweden	60% public.	Primary care centers paid mainly through capitation; some FFS or PFP. Physicians mainly salaried.	No formal gatekeeping, but patients pay higher fees for nonreferred services.	No, but most people voluntarily register with practice.	Mainly public; some nonprofit.	Mostly global budgets; remainder case-based (DRGs) or PFP.
Switzerland	Private.	Mostly FFS; some capitation in managed care plans.	Only in some managed care plans.	Generally no, except in some managed care plans.	Public and private.	Case-based DRG payments for inpatient care; FFS for outpatient care.
Taiwan	Mainly private.	Predominantly FFS under regional primary care budget. Less than 1% receive income from capitation or PFP.	No.	No.	Mostly private nonprofit; remainder are public.	FFS and DRGs under national hospital global budget.
United States	Private.	Mostly FFS; some capitation and incentive payments.	Mostly no.	Mostly no.	Mostly nonprofit (56%); remainder are public or for-profit.	Mix of FFS, case-based (DRG), per diem payments, depending on insurer. Some bundled-payment and PFP programs in Medicare.

PFP = pay for performance; DRG = diagnosis-related group; FFS = fee for service; GP = general practitioner

Table 4. Medical Education

Country	Medical School Ownership	Tuition Fees
Australia	Mainly public; some private.	Tuition fees are subsidized through tax system; the student contribution is capped at AUD 10,754 (USD 7,520) for citizens.
Brazil	80% private.	"Public schools: None Private schools; USD 1,400 to USD 3,000 (BRL 6,000 to 12,000) per month."
Canada	All public.	Average paid by students: CAD 14,780 (USD 11,730) per year
China	All public.	Varies by region, ranging from CNY 5,000 (USD 1,408) to CNY 10,000 (USD 2,816) per year. Tuition is heavily subsidized by the government
Denmark	All public.	None
England	Virtually all public.	Public: Up to GBP 9,250 per year for U.K. nationals; usually between GBP 25,000 and 40,000 per year for international students
France	All public.	EUR 500 (USD 633) per year.
Germany	35 public, five private.	"Public: No tuition. Private: Some require EUR 6,000 (USD 7,702) to EUR 11,500 (USD 14,763) per semester."
India	Half-private, half-public.	Public fees vary by type of government ownership and state; typically INR 100,000–500,000 over five years (USD 1,400–7,000). Private fees are INR 3 million–5 million (USD 42,000–70,000) over five years.
Israel	All public.	Heavily subsidized. NIS 10,500 (USD 2,900) annually for years 1–3; NIS 14,000 (USD 3,730) for years 4–6.
Italy	Largely public.	EUR 2,200 (USD 2,500) per year.
Japan	Two-thirds of students at public schools; remainder at private schools.	Total over six years: JPY 3.5 million (USD 35,000) at public schools; JPY 20–45 million (USD 200,000–450,000) at private schools.
Netherlands	Private, nonprofit university medical centers,	EUR 2,100 (USD 2,658) per year.
New Zealand	All public.	NZD 15,000 (USD 10,100) per year.
Norway	All public.	NOK 1,200 (USD 118) per year.
Singapore	All public.	Heavily subsidized. Annual fees after subsidy: SGD 29,000–33,000 (USD 21,000– 24,000) for nationals for five-year undergraduate program; SGD 47,000 (USD 34,000) for four-year graduate program.
Sweden	All public.	None.
Switzerland	All public.	CHF 1,000–1,700 (USD 826–1,405). Some cantons offer scholarships.
Taiwan	Public and private.	Tuition and fees per semester at public schools: TWD 36,170 (USD 1,194) per semester. Private schools: TWD 72,269 (USD 2,385).
United States	Majority (62%) public.	Median annual tuition: USD 39,153 for public schools; USD 62,529 for private schools.

Note: For OECD countries, currency conversions to U.S. dollars have been adjusted for differences in cost of living between countries, using the OECD's purchasing power parity rates (as of 2017). Currency conversions are as of 2019. For further details regarding conversion rates and methods, please see the individual country profiles.

The Commonwealth Fund

Affordable, quality health care. For everyone.

About the Commonwealth Fund
The mission of the Commonwealth Fund is to promote a high-performing health care system that achieves better access, improved quality, and greater efficiency, particularly for society's most vulnerable, including low-income people, the uninsured, and people of color. Support for this research was provided by the Commonwealth Fund. The views presented here are those of the authors and not necessarily those of the Commonwealth Fund or its directors, officers, or staff.