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International Profiles of Health Care Systems, 2012

Australia, Canada, Denmark, England, France, Germany, Iceland,
Italy, Japan, the Netherlands, New Zealand, Norway, Sweden,
Switzerland, and the United States



Edited by:

Sarah Thomson, London School of Economics and Political Science
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David Squires, The Commonwealth Fund
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The Commonwealth Fund
November 2012

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Abstract: This publication presents overviews of the health care systems of Australia, Canada, Denmark, England, France, Germany, Japan, Iceland, Italy, the Netherlands, New Zealand, Norway, Sweden, Switzerland, and the United States. Each overview covers health insurance, public and private financing, health system organization, quality of care, health disparities, efficiency and integration, care coordination, use of health information technology, use of evidence-based practice, cost containment, and recent reforms and innovations. In addition, summary tables provide data on a number of key health system characteristics and performance indicators, including overall health care spending, hospital spending and utilization, health care access, patient safety, care coordination, chronic care management, disease prevention, capacity for quality improvement, and public views.

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Table 1. Health Care System Financing and Coverage in Fifteen Countries

| | Health system and public/private insurance role | | | Benefit design | |
|---------------|--|--|---|---|---|
| | Government role | Public system financing | Private insurance role (core benefits; cost-sharing; noncovered benefits; private facilities or amenities; substitute for public insurance) | Caps on out-of-pocket (OOP) spending | Exemptions & low-income protection |
| Australia | Regionally administered universal public insurance program (Medicare), joint (national & state) public hospital funding | General tax revenue; earmarked income tax | ~50% buy coverage for private hospital costs & noncovered benefits | No. Safety nets include 80% OOP rebate if physician costs exceed AU\$1,198 [US\$1,247] | Low-income and older people; Lower cost-sharing; lower OOP maximum before 80% subsidy |
| Canada | Regionally administered universal public insurance program (Medicare) | Provincial/federal tax revenue | ~67% buy coverage for noncovered benefits | No | No cost-sharing for Medicare services; Some cost-sharing exemptions for non-Medicare services, e.g., drugs outside hospital; varies by province |
| Denmark | National health service | Earmarked income tax | ~55% buy coverage for cost-sharing, noncovered benefits, or access to private facilities | No. Decreasing copayments with higher drug OOP spending | Drug OOP cap for chronically ill (DKK 3,410 [US\$585]); financial assistance for low-income and terminally ill |
| England | National health service | General tax revenue (includes employment-related insurance contributions) | ~11% buy for private facilities | No general cap for OOP; Prepayment certificate with £2 [US\$3.20] per week ceiling for those needing a large number of prescription drugs | Drug cost-sharing exemption for low-income, older people, children, pregnant women and new mothers, and some disabled/chronically ill; transport costs for low-income |
| France | Statutory health insurance system, with all SHI insurers incorporated into single national exchange | Employer/employee earmarked income and payroll tax; general tax revenue; earmarked taxes | ~90% buy or receive government vouchers for cost-sharing; some noncovered benefits | No. €50 [US\$64] cap on deductibles for consultations and services | Exemption for low-income, chronically ill and disabled; and children |
| Germany | Statutory health insurance system, with 154 competing SHI insurers ("sickness funds") in a national exchange; high income can opt out for private coverage | Employer/employee earmarked payroll tax; general tax revenue | Cost-sharing + amenities (~20%); Substitute: 10% opt-out of SHI system for private coverage only | Yes. 2% income; 1% income for chronically ill + low income | Children exempt |
| Iceland | National health service | General tax revenue | None, except to cover first six months of residence before eligible for national system | Yes. Caps vary for 4 groups, based on age, disability, and employment status | Exemptions for children under 18 and pregnant women |
| Italy | National health service | National earmarked corporate and value-added taxes; general tax revenue and regional tax revenue | ~15% buy coverage for access to private facilities and amenities | No. €46.15 [US\$59] copayment on outpatient care; limited copayment (regional rates) on drugs | Exemptions for low-income older people/children, pregnant women, chronic conditions/disabilities, rare diseases |
| Japan | Statutory health insurance system, with approx. 3,500 noncompeting public, quasipublic, and employer-based insurers | General tax revenue; insurance contributions | Majority buy coverage for cash benefits/cost-sharing | No. Coinsurance reduced to 1% after 80,100 yen [US\$999] monthly cap | Low-income monthly OOP ceiling; 35,400 yen [US\$441]; reduced cost-sharing for young children and older people |
| Netherlands | Statutory health insurance system, with universally mandated private insurance (national exchange) | Earmarked payroll tax; community-rated insurance premiums; general tax revenue | Private plans provide universal core benefits; 90% buy for noncovered benefits | No. Annual deductible of €220 [US\$282] covers most cost-sharing | Children exempt from cost-sharing; premium subsidies for low-income |
| New Zealand | National health service | General tax revenue | ~33% buy for cost-sharing, access to specialists, and elective surgery in private hospitals | No. Subsidies after 12 doctor visits/20 prescriptions in past year | Lower cost-sharing for low-income, some chronic conditions; Maori and Pacific islanders; young children mostly exempt |
| Norway | National health service | General tax revenue | <5% buy for private facilities | NOK 1,980 [US\$346] | Exemptions for children <16 yrs somatic, <18yrs psychiatric; pregnant women and for some communicable diseases (STDs) |
| Sweden | National health service | General tax revenue | <5% buy for private facilities | Yes. SEK 1,100 [US\$164] for health services & SEK 2,200 [US\$328] for drugs | Exemption for children and pregnant women |
| Switzerland | Statutory health insurance system, with universally mandated private insurance (regional exchanges) | Community-rated insurance premiums; general tax revenue | Private plans provide universal core benefits; majority buy for noncovered benefits and amenities | Yes. 700 CHF [US\$742] max after deductible | Income-related premium assistance (30% receive); some assistance for low-income; some exemptions for children, pregnant women |
| United States | Medicare: age 65+, some disabled; Medicaid: some low-income (most under age 65 covered by private insurance; 16% of population uninsured) | Medicare: payroll tax, premiums; federal tax revenue; Medicaid: federal, state tax revenue | Primary private insurance covers 56% of population (employer-based and individual); supplementary for Medicare | No | Low-income; Medicaid; older people and some disabled on Medicare |

Table 2. Selected Health System Indicators for Fifteen Countries

| | Australia | Canada | Denmark | France | Germany | Iceland | Italy | Japan | Netherlands | New Zealand | Norway | Sweden | Switzerland | United Kingdom | United States |
|---|----------------------|-----------------------|-------------------|--------------------|----------------------|----------------------|--------------------|-----------------------|-----------------------|--------------------|-----------------------|--------------------|---------------------|--------------------|-----------------------|
| Population, 2010 | 22.168 | 34.109 | 5.548 | 62.959 | 81.777 | 0.318 | 60.483 | 127.081 | 16.615 | 4.366 | 4.889 | 9.378 | 7.822 | 62.231 | 309.051 |
| Percentage of population over age 65 | 13.0% | 14.1% | 16.6% | 16.9% | 20.6% | 12.1% | 20.3% | 23.0% | 15.4% | 13.0% | 15.0% | 18.3% | 17.5% | 16.5% | 13.1% |
| Percentage of GDP spent on health care (unless otherwise noted) | 9.1% ^a | 11.4% | 11.1% | 11.6% | 11.6% | 9.3% | 9.3% | 9.5% ^a | 12.0% | 10.1% | 9.4% | 9.6% | 11.4% | 9.6% | 17.6% |
| Health care spending per capita | \$3,670 ^a | \$4,445 | \$4,464 | \$3,974 | \$4,338 | \$3,309 | \$2,964 | \$3,035 ^a | \$5,056 | \$3,022 | \$5,388 | \$3,758 | \$5,270 | \$3,433 | \$8,233 |
| Average annual growth rate of real health care spending per capita, 2000–2010 | 4.6% ^d | 4.5% | 3.1% | 2.6% | 2.1% | 2.0% | 1.9% | 2.7% ^d | 5.7% | 5.6% | 3.2% | 3.7% | 2.8% | 4.9% | 4.2% |
| Out-of-pocket health care spending per capita | \$682 ^a | \$631 | \$589 | \$290 | \$571 | \$602 | \$528 | \$485 ^a | n/a | \$317 | \$734 ^c | \$632 | \$1,325 | \$306 | \$970 |
| Hospital spending per capita ^e | \$1,482 ^a | \$1,271 | \$1,938 | \$1,357 | \$1,245 | \$1,179 | n/a | \$1,431 ^a | \$1,631 | \$1,155 | \$1,951 ^a | \$1,629 | \$1,895 | n/a | \$2,634 |
| Spending on pharmaceuticals per capita | \$541 ^a | \$741 | \$331 | \$634 | \$640 | \$523 | \$511 | \$630 ^a | \$481 | \$285 | \$395 | \$474 | \$510 | \$369 ^b | \$983 |
| Physicians, 2010 (unless otherwise noted) | 3.1 ^a | n/a | 3.5 ^a | n/a | 3.7 | 6.3 | 3.7 ^a | 2.2 | n/a | 2.6 | 4.1 | 3.8 ^a | 3.8 | 2.7 | 2.4 |
| Average annual number of physician visits per capita | 6.5 | 5.5 ^a | 4.6 | 6.7 | 8.9 | 6.3 | n/a | 13.1 ^a | 6.6 | 2.9 | 5.2 ^a | 2.9 | 4.0 ^c | 5.0 ^a | 3.9 ^b |
| Hospital spending, utilization, and capacity, 2010 (unless otherwise noted) | 3.4 ^b | 1.7 ^a | 2.9 | 3.5 | 5.7 | n/a | 2.8 | 8.1 | 3.0 | n/a | 2.4 | 2.0 | 3.1 | 2.4 | 2.6 ^a |
| Hospital spending per discharged population | \$9531 ^a | \$14,896 ^a | \$11,295 | \$8,049 | \$5,192 | \$9,737 ^a | n/a | \$12,650 ^b | \$13,134 ^a | \$7,856 | \$11,021 ^a | \$9,991 | \$11,219 | n/a | \$19,319 ^a |
| Hospital discharge per 1,000 population | 155 ^a | 83 ^a | 172 | 169 | 240 | 141 ^a | 128 ^a | 107 ^b | 116 ^a | 147 | 175 | 163 | 169 | 136 | 131 ^a |
| Average length of stay for acute care (days) | 5.1 ^a | 7.7 ^a | 4.6 ^a | 5.2 | 7.3 | 5.8 ^a | 6.7 ^a | 18.2 | 5.6 | 5.5 | 4.5 | 4.6 | 6.9 | 6.6 | 5.4 |
| Medical technology, 2010 (unless otherwise noted) | 5.6 | 8.2 | 15.4 ^a | 7.0 | n/a | 22.0 | 22.4 | 43.1 ^b | 12.2 | 10.5 | n/a | n/a | n/a | 5.9 | 31.6 |
| MRI exams per 1,000 population | 23.0 | 46.7 | 57.5 | 60.2 | 95.2 ^a | 74.2 | n/a | n/a | n/a | 3.6 | n/a | n/a | n/a | n/a | 97.7 |
| Physicians' use of EMRs (% of primary care physicians) ^g | 92.0% | 56% | n/a | 67% | 82% | n/a | n/a | n/a | 98% | 97% | 98% | 88% | 41% | 97% | 69% |
| Health risk factors, 2010 (unless otherwise noted) | 15.1% | 16.3% | 20.0% | 23.3% | 21.9% ^a | 14.3% | 23.1% | 19.5% | 20.9% | 18.1% ^c | 19.0% | 14.0% | 20.4% ^c | 21.5% ^a | 15.10% |
| Obesity (BMI>30) prevalence | 24.6% ^c | 24.2% ^b | 13.4 ^f | 12.9% ^f | 14.7% ^{a,f} | 21.0% ^f | 10.3% ^f | 3.50% ^f | 11.4% ^f | 27.8% ^a | 10.0% ^{b,f} | 12.9% ^f | 8.1% ^{c,f} | 26.1% | 35.9% |

Source: OECD Health Data, June 2012 (unless otherwise noted).

a 2009.

b 2008.

c 2007.

d 2000–2009.

e Adjusted for differences in the cost of living (PPP; purchasing power parity adjustment).

f Self-reported as opposed to measured data.

g Source: 2012 Commonwealth Fund International Health Policy Survey of Primary Care Physicians.

Table 3. Selected Health System Performance Indicators for Eleven Countries

| | Australia | Canada | France | Germany | Netherlands | New Zealand | Norway | Sweden | Switzerland | U.K. | U.S. |
|--|------------------|--------|-----------------|-----------------|------------------|-------------|--------|------------------|------------------|------|-------------------|
| Adults' access to care, 2010 | 65% | 45% | 62% | 66% | 72% | 78% | 45% | 57% | 93% | 70% | 57% |
| Able to get same- or next-day appointment when sick | | | | | | | | | | | |
| Very/somewhat difficult getting care after-hours | 59% | 65% | 63% | 57% | 33% | 38% | 45% | 68% | 43% | 38% | 63% |
| Waited two months or more for specialist appointment ^a | 28% | 41% | 28% | 7% | 16% | 22% | 34% | 31% | 5% | 19% | 9% |
| Waited four months or more for elective surgery ^b | 18% | 25% | 7% | 0% | 5% | 8% | 21% | 22% | 7% | 21% | 7% |
| Experienced access barrier because of cost in past year ^c | 22% | 15% | 13% | 25% | 6% | 14% | 11% | 10% | 10% | 5% | 33% |
| Safety problems among sicker adults, 2011 | 19% | 21% | 13% | 16% | 20% | 22% | 25% | 20% | 9% | 8% | 22% |
| Experienced medical, medication, or lab test error in past two years | | | | | | | | | | | |
| Experienced coordination problems with medical tests/records in past two years | 19% | 25% | 20% | 16% | 18% | 15% | 22% | 16% | 11% | 13% | 27% |
| Key information not shared among providers in past two years | 12% | 14% | 13% | 23% | 15% | 12% | 19% | 18% | 10% | 7% | 17% |
| Experienced gaps in hospital discharge planning in past two years ^e | 55% | 50% | 73% | 61% | 66% | 51% | 71% | 67% | 48% | 26% | 29% |
| Chronic care management, 2011 | 61% | 63% | 53% | 49% | 52% | 58% | 41% | 40% | 74% | 80% | 71% |
| In past year, health care professional has helped make treatment plan you could carry out in your daily life | | | | | | | | | | | |
| Between visits, has health care professional it is easy to call with questions or to get advice | 59% | 62% | 54% | 55% | 70% | 71% | 63% | 73% | 68% | 81% | 77% |
| Primary care practices receive performance feedback, 2012 | 42% | 23% | 14% | 54% | 81% | 64% | 24% | 78% | 12% | 84% | 47% |
| Routinely receives and reviews clinical outcomes data | | | | | | | | | | | |
| Routinely receives and reviews patient satisfaction and experience data | 56% | 15% | 1% | 35% | 39% | 51% | 7% | 90% | 15% | 84% | 60% |
| Routinely receives data comparing performance to other practices | 25% | 15% | 45% | 25% | 32% | 55% | 5% | 55% | 35% | 78% | 34% |
| OECD health care quality indicators | 11 | 10 | 13 ^k | 34 | 12 ^k | 7 | 10 | 6 | 7.4 ^j | 5 | 32.9 ^j |
| Diabetes lower extremity amputation rates per 100,000 population, 2009 | | | | | | | | | | | |
| Breast cancer five-year survival rate, 2004–2009 (or nearest period) | n/a | 87% | n/a | 83% | 84% | 85% | 87% | 86% | n/a | 81% | 89% |
| Mortality after admission for acute myocardial infarction per 100 patients, 2009 ^g | 3.2 | 3.9 | n/a | 6.8 | 5.3 ^k | 3.2 | 2.5 | 2.9 ^k | 4.5 ^j | 5.2 | 4.3 ^j |
| Avoidable deaths, 2006–07 | 57 | n/a | 55 | 76 | 66 | 79 | 64 | 61 | n/a | 83 | 96 |
| Mortality amenable to health care ^h (deaths per 100,000 population) | | | | | | | | | | | |
| Prevention, 2010 | 94% | 93% | 90% | 96% | 96% | 91% | 93% | 96% | 90% | 93% | 92% |
| Percentage of children with measles immunization ⁱ | | | | | | | | | | | |
| Percentage of population over age 65 with influenza immunization | 75% ^j | 59% | 66% | 61 ^k | 74% ^j | 66% | n/a | 64% ^j | 46% | 70% | 64% |
| Public views of health system, 2010 | 24% | 38% | 42% | 38% | 51% | 37% | 40% | 44% | 46% | 62% | 29% |
| Works well, minor changes needed | | | | | | | | | | | |
| Fundamental changes needed | 55% | 51% | 47% | 48% | 41% | 51% | 46% | 45% | 44% | 34% | 41% |
| Needs to be completely rebuilt | 20% | 10% | 11% | 14% | 7% | 11% | 12% | 8% | 8% | 3% | 27% |

Sources (unless noted otherwise): 2010, 2011, and 2012 Commonwealth Fund International Health Policy Surveys.

a Base: Needed to see a specialist in past two years.

b Base: Needed elective surgery in past two years.

c Did not fill/skipped prescription, did not visit doctor with medical problem, and/or did not get recommended care.

d Test results/medical records not available at time of appointment and/or doctors ordered medical test that had already been done.

e Last time hospitalized or had surgery, did NOT: 1) receive instructions about symptoms and when to seek further care; 2) know who to contact for questions about condition or treatment; 3) receive written plan for care after discharge;

f 4) have arrangements made for follow-up visits; and/or 5) receive very clear instructions about what medicines you should be taking. Base: hospitalized/had surgery in past two years.

g In-hospital case-fatality rates within 30 days of admission.

h Source: E. Nolte and M. McKee, "Variations in Amenable Mortality—Trends in 16 High-Income Nations," *Health Policy*, published online Sept. 12, 2011.

i Source: OECD Health Data, June 2012.

j 2008.

k 2007.

Table 4. Provider Organization and Payment in Fifteen Countries

| | Provider ownership | | Provider payment | | Primary care role | |
|---------------|--|---|---|---|--|--|
| | Primary care | Hospitals | Primary care payment | Hospital payment | Registration with GP required | Gatekeeping |
| Australia | Private | Public (~67% of beds), private (~33%) | FFS | Global budgets + case-based payment in public hospitals (includes physician costs); FFS in private hospitals | No | Yes |
| Canada | Private | Mix of public and private, nonprofit | Mostly FFS, but some alternatives (e.g. capitation) | Global budgets + case-based payment in some provinces (does not include physician costs) | Not generally, but yes for some capitation models | Incentives in some regions/ programs |
| Denmark | Private | Almost all public | Mix capitation/FFS | Global budgets + case-based payment (includes physician costs) | Yes (for 98% of population) | Yes (for 98% of population) |
| England | Mainly private (most GPs are self-employed or partners in privately owned practices) | Mostly public, some private | Mix capitation/FFS/P4P; salary payments for a minority (salaried GPs are employees of private group practices, not the NHS) | Mainly case-based payments plus service contracts (includes physician costs) | Yes | Yes |
| France | Private | Mostly public or private not-for-profit, some private for-profit | Mix FFS/P4P | Mainly case-based payments (includes physician costs) + non-activity-based grants for education, research, etc. | No, but strong financial incentives to register (not necessarily, but most, often with a GP) | National incentives: higher cost-sharing for visits/prescriptions without referral from the gatekeeper |
| Germany | Private | Public (~50% of beds); private non-profit (~33%); private for-profit (~17%) | FFS | Global budgets + case-based payment (includes physician costs) | No | In some sickness fund programs |
| Iceland | Mostly public with few private | All public | Mix salaried/FFS | Global budgets (includes physician payments) | Yes | No |
| Italy | Private (primary care providers (i.e. GPs and pediatricians) are self-employed) | Mostly public, some private | Mix capitation/FFS | Global budgets + case-based payment (includes physician costs) | Yes | Yes |
| Japan | Mostly private | Private non-profit (~55% of beds) and public | FFS | Case-based per diem payments or FFS (includes physician costs) | No | No |
| Netherlands | Private | Mostly private, non-profit | Mix capitation/FFS | Global budgets + case-based payment (include physician costs) | Yes | Yes |
| New Zealand | Private | Mostly public, some private | Mix capitation/FFS | Global budgets + case-based payment (includes physician costs) | Yes (for 96% of population) | Yes |
| Norway | Private | Almost all public | Capitation (municipalities)/ FFS (Norwegian Health Economics Administration; patient copayments) | Global budgets + case-based payment (includes physician costs) | Yes | Yes |
| Sweden | Mixed | Almost all public | Mix capitation/FFS/P4P | Global budgets + case-based payment (includes physician costs) | Yes (except Stockholm) | Some incentives |
| Switzerland | Private | Mostly public, some private | Most FFS, but some capitation | Varies by canton: Global budgets, per diem, case-based payment (includes physician costs) | No | No, unless enrolled in a gate-keeping managed care plan |
| United States | Private | Mix of nonprofit (~70% of beds), public (~15%), and for-profit (~15%) | Most FFS, some capitation with private plans | Per diem and case-based payment (usually does not include physician costs) | No | In some insurance programs |

The Australian Health Care System, 2012

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What is the role of government?

The Australian government plays a strong role in national policymaking but generally funds, rather than provides, health services. The federal government funds and administers the national health insurance scheme, Medicare (previously a statutory authority and now a government agency), and pharmaceutical benefits; funds public hospitals and population health programs (with the states/territories); regulates much of the health system including private health insurance (PHI), pharmaceuticals, and medical services; and has the main funding and regulatory responsibility for government-subsidized residential care facilities. Under the National Health Reform Agreement, endorsed by the Council of Australian Governments (COAG) in 2011, the role of the Australian government has been strengthened in relation to the funding and governance of public hospitals and primary care (see below). The eight states and territories (through their health departments) are autonomous in administering health services subject to intergovernmental and funding agreements. They are charged with administering public hospitals and regulating all hospitals and community-based health services. Local government is involved in environmental health and some public health programs but not clinical services.

Who is covered?

Australia's national public health insurance scheme, Medicare, provides universal health coverage for citizens and permanent residents, as well as automatic coverage for people with temporary visas from countries with whom Australia has reciprocal arrangements. All overseas students are required to enroll in Overseas Student Health Cover. The Department of Veterans' Affairs covers eligible veterans and dependents by directly purchasing public and private health care services. The Australian government provides some assistance for asylum seekers while their applications are processed, including temporary eligibility for Medicare, and pays for health care for those in detention centers. Undocumented migrants who are not eligible for Medicare, those experiencing financial hardship, and asylum seekers can seek assistance from nongovernmental organizations (NGOs). Private health insurance plays a mixed complementary and supplementary role, offering people access to treatment in private hospitals and covering some ancillary health care services; enrollment is encouraged through taxes and subsidies.

What is covered?

Services: Public inpatient care in public hospitals is free under the National Health Act 1953, but people may choose to pay for private care in public or private hospitals. Medicare provides free or subsidized access to most medical services and some allied health services if the patient is referred by a medical practitioner; it also covers prescription pharmaceuticals. The Australian government, usually jointly with the state and territory governments, funds a wide range of other health services, including population health, mental health, limited dental services, rural and indigenous health programs, and health services for war veterans. It also defines Medicare subsidies for outpatient care and outpatient physician services under the *Medical Benefits Schedule* published by the Department of Health and Ageing (DoHA), and for medication under the *Schedule of Pharmaceutical Benefits*, published by the Pharmaceutical Benefits Scheme (PBS). The Medical Services Advisory Committee assesses new medical therapies for inclusion in the *Medical Benefits Schedule*, on the basis of safety, cost-effectiveness, and comparative effectiveness. Its reports are solely advisory, with all decisions resting with the minister and, in some cases, the cabinet. The Pharmaceutical Benefits Advisory Committee is instrumental in determining pharmaceutical benefits and pricing.

Preventive services, such as free vaccines and screenings, are provided through public programs. General practitioners (GPs) also provide preventive services such as immunizations and some health checks, which are wholly or partly subsidized by Medicare or other national programs. Mental health care is free when part of public hospital inpatient care, or is subsidized in whole or in part by Medicare for consultations with community-based psychiatric specialists. NGOs also provide information, treatment, and advocacy services for mental health care. Long-term care is provided either in the community through means-tested services subsidized by an intergovernmental program, or in residential care homes with means-tested fees, subsidized by an Australian government program.

Private health insurance offers choice among private hospitals, private care in public hospitals, in-hospital specialists, and practitioners of ancillary services such as dental care, optometry, and complementary medicine. It also offers choice in the timing of procedures. Since 2007, private insurers have been able to cover out-of-hospital services that substitute for or prevent in-hospital care, but there has been little development of those services to date.

Cost-sharing: Medicare usually reimburses 85 percent to 100 percent of its fee schedule for ambulatory services, and 75 percent of the fee schedule for in-hospital services. Doctors' fees are not regulated although the fee that Medicare is prepared to reimburse exerts some downward pressure. Doctors are free to charge above the Medicare fee schedule, or they can treat patients and bill Medicare directly for the amount of the subsidy with no patient charge (referred to as bulk billing). Incentive schemes introduced to reverse a reduction in bulk billing by general practitioners offer additional payment for bulk billing of concession card holders (low-income, older people), children under 16 years of age, and residents of rural and remote areas. Prescription pharmaceuticals approved by the PBS have a standard copayment (in 2012) of AUS\$35.40 (US\$28.81) for the general public, with a reduced concessional rate of AUS\$5.80 (US\$4.72). The Repatriation Pharmaceutical Benefits Scheme subsidizes access to pharmaceuticals for war veterans and dependents.

Safety net: When the annual threshold of AUS\$413.50 (US\$336.50) (in 2012) for “gap expenses” (the difference between the Medicare benefit and the fee schedule) is reached, the Medicare payment is increased from 85 percent to 100 percent of the Medicare fee schedule for the remainder of the calendar year. The Extended Medicare Safety Net provides an additional payment for patients who incur high health care costs. Once a threshold for total out-of-pocket costs is reached (AUS\$598.80 [US\$487.30] for individuals with concession cards and low-income families, and AUS\$1,198.00 [US\$974.91] for general patients), the patient receives 80 percent of his or her out-of-pocket costs for the remainder of the calendar year. Families can register to have their gap expenses and out-of-pocket costs combined to reach the applicable threshold amount sooner. People who exceed an annual safety-net threshold for pharmaceutical costs (PBS-listed medicines) are eligible for additional subsidies. The patient copayment per item decreases to the concessional rate of AUS\$5.80 (US\$4.72) once expenditure exceeds AUS\$1,363.30 (US\$1,109.43) (as of 2012) in a calendar year. For concessional patients, the copayment is not required once expenditure on PBS items exceeds AUS\$348.00 (US\$283.20).

How is the health system financed?

Publicly financed health care: Australia spent 9.1 percent of its GDP on health care in 2009 (OECD 2012). Medicare is funded mostly from general tax revenue, including the Goods and Services Tax; from patient fees and other private sources; and from a 1.5 percent levy on taxable income, although some low-income individuals are exempt or pay a reduced levy. Individuals and families in 2011–2012 with higher incomes (AUS\$80,000 and AUS\$160,000 [US\$65,103 and \$130,205] per annum, respectively) who do not take out private hospital insurance must pay a Medicare levy surcharge, which is an additional 1 percent of taxable income. Medicare defines the reimbursement level for listed items (the Medicare fee schedule), but medical practitioners remain free to set their fees. GPs and specialists charge fee-for-service (FFS). Patients are reimbursed by Medicare, unless the medical practitioner bulk-bills Medicare and accepts the schedule fee. For the financial year 2009–2010, Australian government funding amounted to

69.9 percent of total health expenditure—43.6 percent by the Australian government and 26.3 percent by the states/territories. In 2007–2008, the revenue raised from the Medicare levy (including the surcharge) amounted to 18 percent of total federal government health expenditure.

Privately financed health care: Out-of-pocket spending accounted for 18.5 percent of total health expenditure in 2009. Most of it was spent on medications not covered by the PBS and on dental services, aids and appliances, and copayments. Private health insurance (PHI) accounted for 7.6 percent of total health expenditure in the same period, while in June 2012 46.8 percent of the population had private hospital insurance and 54.4 percent had general treatment coverage (which includes ancillary services). Government policy encourages people to take out private health insurance early in life: the Lifetime Health Coverage program offers people who join a private insurance fund before age 31 a relatively lower premium throughout their lives, regardless of health status. People over age 30 face a 2 percent increase in premiums over the base rate for every year they delay joining. In July 2012 the subsidy that the Australian government has been paying since 1999 to individuals toward the cost of private insurance premiums became linked to income. It is now reduced for singles and families with annual incomes higher than AUS\$84,000 and AUS\$168,000 (US\$68,358 and \$136,715), respectively (in FY 2009–2010, gross median annual household income was AUS\$78,816 [US\$64,139]).

How are health services organized and financed?

Primary care: In 2010, 44,600 GPs and 29,300 specialists were employed in health occupations (AIHW 2012). Most GPs are self-employed and work in multiprovider practices. Some “corporatization” is under way as 8 percent of GPs are employed under contract with private agencies. GPs are paid FFS and the majority bulk-bill Medicare. Individuals are not required to register with a primary care physician and are free to consult any GP, to seek a second opinion, or to shift to another GP practice. Doctors with busy practices, however, may decide not to accept new patients. GPs play an important gatekeeping role as Medicare will reimburse specialists the schedule fee payment only for consultations referred by GPs.

Outpatient specialist care: Medicare allows individuals to choose their specialist for out-of-hospital care—although their GP must provide a referral letter to the specialist. Specialists are paid FFS and practice in both the private and the public sector; many work in both sectors. They generally maintain offices in the community and also have “visiting rights” in public and private hospitals, where they conduct outpatient sessions and treat inpatients. Surgeons, in particular, may maintain operating schedules in public hospitals (and operate on both public and private patients) as well as in private hospitals.

After-hours care: Practice accreditation standards set by the Royal Australian College of General Practitioners call for practices to ensure “reasonable arrangements for medical care for patients outside normal opening hours.” In practice, GP clinics vary considerably in the extent to which they provide after-hours care; it is often provided by a private company through arrangements with GP practices. For example, doctors in Canberra set up a nonprofit company in 1971 (CALMS Ltd), now also supported by the Australian Capital Territory government, where each member doctor agrees to participate on a roster to provide appropriate after-hours medical care to people in the territory. The Australian government also has offered grants to GPs to provide after-hours services. Medicare Locals (described below) also are intended to improve access to after-hours care.

Hospitals: There is a mix of public, private, and not-for-profit hospitals. In 2010–2011 there were 735 public acute hospitals, 17 public psychiatric hospitals, 303 private day hospitals, and 285 other private hospitals. Public hospitals are funded jointly by the Australian government and state/territory governments through five-year agreements, in addition to receiving funds from treating private patients. Private hospitals (including freestanding ambulatory day centers) can

be either for-profit or nonprofit, and their income is derived chiefly from patients with private health insurance. Hospitals for the past two decades have been funded mainly through a diagnosis-related group (DRG) payment system. A variation on this formula, an “efficient national price,” was introduced in 2012.

Under the 2011 National Health Reform Agreement endorsed by the COAG, 137 local hospital networks will have been formed by the end of 2012, each consisting of one to four hospitals, and will be run by boards with local clinician input. Their boundaries were decided in intergovernmental agreements, and state health departments will continue to be the overall managers of their public hospitals. Through the National Hospital Funding Authority, the Australian government will directly pay each local hospital network 45 percent (50% after 2016–2017) of the efficient growth in costs, as calculated by an independent hospital pricing authority, for each service it provides to public patients. The remainder will continue to be paid by state governments. Physicians in public hospitals either are salaried (but may also have private practices and additional FFS income) or are paid on a per-session basis for treating public patients; they usually contribute a portion of the income earned from the fees to the hospital.

For private hospital coverage, private insurers list their preferred providers and doctors, with whom the patient will not face high out-of-pocket costs.

Long-term care: The majority of care for older people with long-term health conditions is provided by relatives and friends, although there is an allowance available to other caregivers in some cases. For people assessed as having a high level of dependency, the Australian government subsidizes assistance through either community care services or residential aged care homes. The Australian government subsidy for aged residential care is means-tested, and the amount of subsidy is based on the extent of a person’s dependency (low, medium, high) and total assessable income. As of July 2012, under the current funding formula, the maximum income-tested fee for standard care for a single resident was AUS\$47.40 (US\$38.57) per day. In 2009–2010, 60 percent of residential aged care providers were not-for-profit (such as religious and community organizations), 29 percent were private for-profit, and the remaining 11 percent were state and local government facilities.

The Home and Community Care (HACC) program, previously an intergovernmental program, subsidizes services that aim to support people in their own homes. According to the 2011 National Health Reform Agreement, the Australian government will fully fund HACC services (except in Victoria and Western Australia who did not sign up to the agreement) starting from July 1, 2012. The Australian government previously provided around 60 percent of HACC funding and state/territory governments provided around 40 percent.

Palliative care services are provided by government and nongovernment providers to people in their own homes, in community-based settings such as nursing homes, in palliative care units, and in hospitals. In 2008, 343 government-funded agencies provided palliative care. The National Palliative Care program also funds initiatives to ensure palliative care quality and access.

Mental health care: A variety of public and private health care providers deliver mental health services. Nonspecialized services are offered through GPs, and specialized services are provided through psychiatrists, psychologists, community-based mental health services, psychiatric hospitals, psychiatric units within general acute hospitals, and residential care facilities. Nearly 20 public psychiatric hospitals treat and care for admitted patients with psychiatric, mental, or behavior disorders. Mental health–related GP and specialist consultations are reimbursed by Medicare. Inpatient admissions to public hospitals for mental health problems are free to the patient and funded through intergovernmental hospital funding agreements. Private insurers subsidize some admissions to private hospitals. The aim of the National Mental Health Strategy is to “deinstitutionalize” and “mainstream” mental health services by moving treatment out

of psychiatric hospitals and into general hospitals while expanding the provision of community health services. These community services include hospital outpatient clinics and nonhospital community mental health care services such as crisis and mobile assessment and treatment services, day programs, outreach services, and consultation services.

What are the key entities for health system governance?

The main national governance agencies relating to health are the COAG, the Health Ministers Conference, and the Department of Health and Ageing (DoHA). Quality and safety standards and guidelines are set by the Commission on Safety and Quality in Health Care. The National Safety and Quality Health Service Standards were endorsed by the health ministers in 2011. Clinical guidelines are produced by a range of professional associations and promoted by the National Institute of Clinical Studies. The Australian Council on Healthcare Standards (an NGO) is the main accreditation body for hospitals and other health facilities and also sets its own accreditation standards. The Aged Care Standards and Accreditation Agency Ltd. (a quasigovernmental national body) manages the accreditation process for aged care services as set out in the 2011 Accreditation Grant Principles. The Pharmaceutical Benefits Advisory Committee, an independent statutory body, advises the national minister for health on the evaluation of comparative effectiveness and cost-efficiency of drugs proposed for the government subsidy list. The DoHA then uses these assessments to negotiate prices with manufacturers. The Therapeutic Goods Administration (TGA), within the DoHA, is responsible for the safety and efficacy of new therapeutic goods but is not required to assess cost-effectiveness. The Independent Hospital Pricing Authority was established in December 2011 to set the national efficient price for public hospital services. The National Health Performance Authority was established as a statutory authority under the *National Health Reform Act 2011* in October 2011 in order to report on the performance of all local hospital networks, public and private hospitals, and Medicare Locals. The Health Practitioners Regulation Agency was established under legislation in 2010 as an oversight body for new national boards (previously the regulation of the professions was the responsibility of state-level boards) for each of 14 legally recognized health occupations. The Competition and Consumer Protection Agency ensures that individuals and businesses comply with the Commonwealth's competition, fair trading, and consumer protection laws. Its mandate also covers private sector health professionals and services.

What is being done to ensure quality of care?

The past decade has seen much more attention being paid by a range of regulatory actors and strategies to ensuring quality of care (Healy 2011). The principal body in this area, the Australian Commission on Safety and Quality in Health Care (which became a statutory body in 2011), publicly reports on the safety and quality of health care performance against national standards, disseminates knowledge, identifies policy directions, and develops and promotes programs. The National Health Performance Authority will monitor trends in the performance of health service providers against standards set out in the National Health Performance Framework.

Most general practices in Australia (over 85%) now seek accreditation from agencies that apply quality standards set by the Royal Australian College of General Practitioners. Medicare also offers financial incentives, rewarding practices deemed to be working toward meeting the College's standards in the areas of information management, after-hours care, rural care, teaching, and quality prescribing. Residential aged care must be accredited to be eligible for government subsidies, and provider organizations are subject to licensing and approval processes.

Health authorities and professional groups promote evidence-based practice. The National Institute of Clinical Studies (NICS), under the National Health and Medical Research Council, seeks to close the gaps between best available evidence and current clinical practice. The NICS supports the development of clinical practice guidelines and evidence-based products; issues advisory (nonmandatory) guidelines; runs guideline dissemination projects and evaluation studies; and runs a clinical practice guidelines portal that gathers together under one entry point the guidelines issued by a variety of bodies. Health care organizations as employers run a variety of quality improvement programs, and most pro-

Professional boards now require members to participate in professional development programs in order to maintain professional registration.

What is being done to improve care coordination?

Large practices with several partners may employ a practice manager, and some employ nurses; the Australian government, through the Practice Incentives Program, subsidizes the employment of practice nurses. In addition, practice nurses are being allocated an increasing number of items in the Medicare Benefits Schedule, and Medicare allows GPs to claim for specified tasks undertaken by a practice nurse under the direction of the GP. Multidisciplinary teams are the norm in community health centers, but not in private general practices. The Australian government funds group practices and multidisciplinary teams through its GP Super Clinics program. It has also funded Divisions of General Practice (comprising local groups of 100 to 300 GPs) since 1992 in order to promote local health planning and collaboration between general practitioners and other health care providers, and to enable more efficient use of resources through immunization programs and better management of chronic disease.

Also, in accordance with the 2011 National Health Reform Agreement, the government provides primary care providers with funds to form Medicare Locals, which are primary care organizations centered around GPs and other providers that aim to coordinate primary care delivery and tackle health care service gaps in the local community. Medicare Locals are responsible for chronic disease prevention and management programs, mental health initiatives, and efforts to improve access to after-hours care and to provide closer links to local hospitals. As of 2012, 61 Medicare Locals have been formed.

What is being done to reduce health disparities?

Reducing health disparities is a key goal of the Australian health system. The Australian government and the states/territories have pledged to work in partnership with indigenous communities in order to close long-standing health gaps through a range of programs and increased health care funding. Extra subsidies for services, training programs, and outreach services are also being directed to people in rural areas and a safety net is in place to improve access to care for low-income people.

What is the status of electronic health records?

The national strategy on health information is managed by the Australian Health Ministers' Advisory Committee (an intergovernmental committee of senior health administrators), and the National Health Information Agreement in place between governments and other key agencies aims to develop, collect, and exchange data in order to improve the health of the population and the delivery of health services. The National E-Health Strategy, an intergovernmental strategy on health information technology, has been published, and the National E-Health Transition Authority has been set up in order to develop patient identifiers, interoperable systems between providers, and a clinical terminology and information service. A unique health identifier is being implemented under the 2010 Healthcare Identifiers Act. Many GPs already use electronic decision support systems. Since July 2012, all Australians have been able to choose to register for an electronic health record that can be accessed both by individuals and by their authorized health care providers.

How are costs controlled?

As described above, public hospitals are owned and operated by state/territory governments, which set annual budgets for public hospitals, although costs are shared with the national government. As of 2012, hospitals have been funded according to a national efficient pricing scheme for categories of services. New pharmaceuticals have to meet cost-effectiveness criteria and are subject to nationally negotiated pricing before inclusion in the formulary of publicly subsidized medicines. Additional measures include controlling the growth in cost of some large-volume diagnostic services through

industry agreements with the relevant medical specialty; controlling access to specialist services through “gatekeepers” such as GPs; prioritizing access to certain services according to clinical need; limiting the number of providers that can access Medicare benefits for some “hi-tech” services; and proxy rationing measures such as waiting lists.

What major innovations and reforms have been introduced?

The Australian (Labor) government elected in 2007 set up a number of reviews of the health system with regard to professional registration and workforce planning, primary care, preventive health, and hospital reform; the recommendations from these reports are in the process of being implemented.

Health Workforce Australia was set up in 2006 by the COAG as an Australian government statutory authority in order to develop policy and to deliver programs across four main areas: workforce planning, policy, and research; clinical education; innovation and reform of the health workforce; and the recruitment and retention of international health professionals. The regulation of health care professionals, previously a function of state-level boards, has been overhauled: the Australian Health Practitioners Regulation Agency was established in 2010 to oversee new national boards and to administer the Health Practitioner National Law Act 2009 for each of the 14 current health occupational groups.

The Australian National Preventive Health Agency was established in January 2011 to develop strategic partnerships across all sectors, to provide technical advice and assistance, and to promote health and reduce health risk and inequalities. In a tobacco-control initiative, the Australian government intends to introduce plain packaging for cigarettes. As described above, the COAG agreed on a hospital reform strategy, the National Health Reform Agreement, in August 2011, after several years of debate. Under the agreement, Local Hospital Networks have been formed with local boards, although state health departments will continue to be the overall administrators of their public hospitals. The National Health Performance Authority was set up as a statutory authority in 2011 to collect information on and monitor trends in the performance of health service providers, and will monitor the performance of public hospitals against the National Health Performance Framework, which includes 48 indicators: 31 for healthy communities and 17 for hospital performance. In addition, as described above, primary care is being reorganized, with GPs and other health professionals grouping together as Medicare Locals.

Last, after the Prime Minister released a report by the Productivity Commission in 2011, the states agreed to cooperate with the Australian government in overhauling joint funding for disability services. The Commission recommended that the Australian government and the states pool funds that should be disbursed based on actuarial assessments of need. The scheme calls for early intervention for people with a significant or permanent disability that significantly affects their communication, mobility, self-care, or self-management. The National Disability Insurance Scheme Launch Transition Agency was established by the Australian government in 2012 to implement the first stage of the National Disability Insurance Scheme. The first stage will commence from July 2013 in launch sites in several states to provide care and support initially for an estimated 20,000 people with significant and permanent disabilities.

The author would like to acknowledge Jane Hall as a contributing author to earlier versions of this profile.

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What is the role of government?

Canada's provinces and territories have primary responsibility for organizing and delivering health services, including the education, accreditation, and licensure of health care providers. Many provinces and territories have established regional health authorities that plan and deliver publicly funded health services on a local basis. Some jurisdictions have consolidated a number of these authorities in recent years. Unlike the financing of the universal health insurance program, which is largely the responsibility of the public sector, health care delivery is almost entirely the domain of private actors. The federal government cofinances provincial/territorial health insurance programs through the Canada Health Transfer (described below), with funding conditional on the provinces'/territories' adhering to the five criteria of the Canada Health Act. The Canada Health Act sets pan-Canadian standards for hospital, diagnostic, and physician services. The federal government regulates the safety and efficacy of medical devices, pharmaceuticals, and natural health products; funds health research; and administers several public health functions.

Who is covered?

The Canadian provinces and territories administer their own universal health insurance programs covering all provincial and territorial residents. The federal government supports the public programs through fiscal transfers conditional on their meeting the five criteria of the Canada Health Act, including universal coverage for medically necessary hospital, diagnostic, and physician services (Medicare). Each province and territory is responsible for establishing its own specific residency requirements; undocumented immigrants, including denied refugee claimants, those who stay in Canada beyond the duration of a legal permit, and those who enter the country "illegally," are not covered in any federal or provincial program, although the provinces/territories do provide some limited services. Coverage of other health services is generally provided through a mix of public programs and private health insurance, or financed by out-of-pocket payments. The federal government provides additional health care benefits (and compensates provincial/territorial governments) for physician and hospital services provided to First Nations and Inuit, members of the Royal Canadian Mounted Police and the Canadian Forces, veterans, refugee claimants, and inmates in federal penitentiaries. Around two-thirds of Canadians also have private health insurance, which covers services that are not covered under the public programs (see below).

What is covered?

Services: To qualify for federal financial contributions under the Canada Health Transfer, provincial and territorial health insurance plans must provide first-dollar coverage of medically necessary physician, diagnostic, and hospital services, including inpatient prescription drugs, for all eligible residents. Provincial and territorial governments also provide varying levels of additional benefits, such as outpatient prescription drug coverage, vision care, dental care, home care, aids to independent living, and ambulance services. The federal government directly provides and funds a wide range of preventive services through the Public Health Agency; provinces/territories also provide public health promotion and prevention services (including immunizations) as part of their public programs. There is no nationally defined statutory benefits package; most public coverage decisions are made by provincial/territorial governments in conjunction with the medical profession. The federal government licenses medical devices and equipment, but purchasing decisions are made at the provincial or territorial level.

Cost-sharing: There is no cost-sharing for publicly insured physician, diagnostic, and hospital services. All prescription drugs provided in hospital settings are covered through the public program, with variable additional outpatient coverage offered by provinces/territories. Physicians are not allowed to charge patients prices above the negotiated fee schedule.

Safety net: Cost-sharing exemptions vary among the provinces/territories. There are no caps on out-of-pocket spending. However, the federal government supports tax credits for medical expenses through the Medical Expense Tax Credit, which applies to individuals who have significant medical expenses (above 3% of income) for themselves or their dependents. A disability tax credit and an attendant care expense deduction also provide relief to individuals (or their dependents) who have prolonged mental or physical impairments, and to those who incur expenses for care that is needed to allow them to work.

How is the health system financed?

Publicly funded health care: Public programs are funded by general taxation. The federal government contributes cash funding to the provinces and territories on a per capita basis through the Canada Health Transfer—block grants that accounted for about 20 percent of total provincial and territorial health expenditures in 2011. The current provisions to compensate for smaller tax bases in some less wealthy provinces/territories will be abolished after 2014 (see below). Public funding accounted for an estimated 71 percent of total health expenditures in 2011 (OECD 2012).

Privately funded health care: In 2010, out-of-pocket payments by private households represented about 14.3 percent of total health spending (OECD 2012). The main components of out-of-pocket spending in 2010 were dental care (20%), nonhospital institutions (mainly long-term care homes) (20%), prescription drugs (17%), vision care (12%), and over-the-counter medications (10%) (CIHI 2012). Private health insurance covers about two-thirds of the population (23 million people). In 2010 it accounted for approximately 12 percent of total health spending (CIHI 2012). Private insurance is obtained mainly through employment-based group plans, which cover services such as vision and dental care, prescription drugs, rehabilitation services, home care, and private rooms in hospital. Supplementary private insurance to provide faster access to publicly funded physician and hospital services is not available. Providers set their own fees for services covered by private insurance, and each insurer sets its own reimbursement level (e.g., based on the lowest fee among representative providers in a geographical area). Contributions to employer-sponsored private insurance are deductible from income for federal tax purposes, and are also deductible from income for provincial tax purposes in all provinces but Quebec. Premiums paid to any private insurance plan qualify as expenses eligible for the federal Medical Expense Tax Credit.

How are health services organized and financed?

Primary care: In 2010, of the total number of doctors (69,699), about half were family doctors and half were specialists (CIHI 2011a). Primary care physicians largely act as gatekeepers for further care. Most physicians are in private practices and are remunerated on a fee-for-service (FFS) basis, although an increasing number of family doctors receive alternative forms of public payment such as capitation, salary, and blended funding. Payment is sometimes linked to performance. In 2010, FFS payments made up just over 50 percent of payments to family physicians in Ontario, compared with 70 percent in Quebec and 85 percent in British Columbia (CIHI 2011b). Physicians in community clinics are salaried. Some of the new primary care teams paid partly by capitation require patients to register in order to receive capitation payments; otherwise registration is not required. Patients have free choice of primary care doctor, although in some areas choices are restricted owing to limited supply. Provincial and territorial ministries of health negotiate physician fee schedules with provincial and territorial medical associations.

Outpatient specialist care: The majority of specialist care is provided in hospitals, although there is a trend toward providing specialist services in private nonhospital facilities. Specialists are paid mostly on an FFS basis. Patients can choose

a specialist and access the specialist directly, but it is common for family physicians to refer patients to specialty care because many provinces pay lower fees for non-referred consultations.

After-hours care: After-hours care is generally provided by physician-led (and mainly privately owned) walk-in clinics and hospital emergency rooms. In most provinces and regions a free telephone service (“telehealth”) is available 24 hours per day for health advice from a registered nurse. Traditionally, primary care physicians were not required to provide after-hours care, although many of the government-enabled group practice arrangements have requirements or financial incentives for providing after-hours care to patients registered with the practice. The Commonwealth Fund International Health Policy Survey (2009) of physicians found that only 43 percent of physician practices in Canada had arrangements for patients to see a doctor or nurse after hours. The Commonwealth Fund’s 2010 survey of the population found that 65 percent of Canadians reported difficulty in accessing after-hours care.

Hospitals: Hospitals are a mix of public and private, predominantly not-for-profit, organizations, often managed locally by regional health authorities or hospital boards representing the community. They generally operate under annual, global budgets, negotiated with the provincial/territorial ministry of health or regional health authority. However, several provinces are beginning to introduce activity-based funding for hospitals. Activity-based funding has also been used to pay for additional services targeted, in national efforts, at addressing waiting times for services such as cancer treatment and cataract surgery. Hospital-based physicians generally are not hospital employees and are paid FFS.

Mental health care: The Canadian system includes universal health care coverage for physician-provided mental health care, alongside a fragmented system of allied mental health services. Hospital mental health care is provided in specialty psychiatric hospitals and in general hospitals with adult mental health beds. The Canada Health Act does not mandate public coverage of nonphysician mental health services (such as services of psychologists or social workers) outside of hospitals, but the provinces/territories all provide a range of community mental health and addiction services. Psychologists may work privately, and are paid through private insurance or out-of-pocket payments, or in publicly funded organizations under salary.

Long-term care: Long-term care (LTC) services and end-of-life care provided in nonhospital facilities and in the community are not considered insured services under the Canada Health Act. Provinces and territories may choose to fund services, and all do, but coverage varies among and within provinces/territories. Financing for LTC institutions is mostly public (72%); spending on nonhospital institutions accounted for about 10 percent of total health expenditure in 2010 (CIHI 2012). Some provinces have established minimum periods of residency as a condition for being eligible for admission to a facility. A mix of private for-profit, private not-for-profit, and public facilities provides LTC with variation in ownership across the country. About half of the provinces and territories provide some home care services without means testing, but access may depend both on assessed priority and on availability within capped home care budgets. Supply shortages limit the availability of publicly funded services, increasing the demand for private home care services. Most provinces charge user fees for nonprofessional home care services (e.g., homemaking, transportation, meal delivery, respite care). The provinces and territories are responsible for delivering palliative and end-of-life care in hospitals, and many provide some coverage for professional services outside these settings (e.g., doctors, nurses, and drug coverage). A significant number of deaths still occur in hospitals and in institutional long-term care (approximately 60%, compared with about 30% in the home).

What are the key entities for health system governance?

Because of the highly decentralized nature of health care in Canada, the provinces have primary jurisdiction over administration and governance of their health systems. Most provinces have established statutory relationships with devolved purchasing organizations; some of these arrangements include performance management within the broader

context of accountability agreements. At the national level, several intergovernmental, nonprofit organizations have been established in the past decade to improve overall system governance by monitoring and reporting on health system performance (the Health Council of Canada); disseminating best practice in patient safety initiatives (the Canadian Patient Safety Institute); and providing information on health and health care and standardizing health data collection (the Canadian Institute for Health Information). Nongovernmental organizations that play important roles in system governance include the professional organizations (e.g., the Canadian Medical Association), the provincial regulatory colleges responsible for governing the professions through their licensing role and by developing and enforcing standards of practice, and Accreditation Canada, which manages the voluntary accreditation of health care organizations including regional health authorities, hospitals, long-term care facilities, and community organizations. Most health care providers are self-governing under provincial/territorial law.

What is being done to ensure quality of care?

Over the past decade, as part of the 10-Year Plan to Strengthen Health Care (2004–2014), the federal government has increasingly earmarked funds it provides to the provinces/territories to support innovation and stimulate systemwide improvements in quality. For example, the federal Wait Time Reduction Fund (CAD\$5.50 billion [US\$5.5 billion] over 10 years) led to significant reductions in surgical and diagnostic wait times in its priority areas (cancer care, cardiac care, sight restoration, joint replacement, and imaging). All provinces publicly report waiting-time data and provide the Canadian Institute for Health Information with comparable data.

There is increasing use of health technology assessment in Canada to support and inform purchasing decisions, service management, and clinical practice. Health technology assessment organizations include the Canadian Agency for Drugs and Technologies in Health (CADTH), a national body, and specialized provincial agencies in Alberta, Ontario, and Quebec. CADTH's health technology assessment program produces information about the clinical effectiveness, cost-effectiveness, and broader impact of drugs, medical technologies, and health systems. The Common Drug Review at CADTH reviews the clinical and cost-effectiveness of drugs and provides common formulary recommendations to the publicly funded drug plans in Canada (except Quebec). These nonbinding recommendations support greater consistency of public drug plan access and evidence-based resource allocation.

The federally funded Canadian Patient Safety Institute promotes best practices and develops strategies, standards, and tools. Another program, the Optimal Use Projects program operated by CADTH, provides recommendations (though not formal clinical guidelines) to health care providers and consumers in order to encourage the appropriate prescribing, purchasing, and use of medications.

From 2000 to 2006, the Primary Care Transition Fund invested CAD\$800 million (US\$804 million) to support provinces and territories with the transitional costs of implementing large-scale primary care reform initiatives. Most of the funding was allocated for improvements in access, health promotion, disease prevention, and care integration and coordination, and to encourage the use of multidisciplinary teams. Major achievements in reforming primary care include widespread introduction of multidisciplinary teams in Ontario, Quebec, and Alberta; patient enrollment in Ontario and Quebec; the advancement of alternative payment methods to fee-for-service; and expanded primary care education for physicians and nurses.

There is no system of professional revalidation for physicians in Canada, but each province has its own process of ensuring that physicians engage in lifelong learning. For example, three provinces require physicians to participate in an education program in order to keep their professional license; others rely on peer review and self-assessment. There is no information available on doctors' performance, but the Canadian Institute for Health Information produces regular reports on health system performance, including hospital standardized mortality rates and waiting times.

The Health Council of Canada assesses progress in improving the quality, effectiveness, and sustainability of the health system, but many quality improvement initiatives take place directly at the provincial and territorial level, with many jurisdictions having established quality councils to monitor and publicly report on health system performance.

Few formal disease registries exist, although many provincial cancer care systems maintain some type of patient registry. Provincial cancer registries feed data to the Canadian Cancer Registry, an administrative survey that collects information on cancer incidence in Canada.

What is being done to improve care coordination?

The number of doctors practicing in multidisciplinary teams is growing. In 2004, as part of an intergovernmental plan for health care (the 10-Year Plan to Strengthen Health Care), all governments agreed to provide at least half of their respective populations with access to multidisciplinary primary care teams by 2011. By 2007 about three-quarters of family physicians were working in physician-led multiprofessional practices (Marchildon 2012); most progress has been seen in Ontario (with 200 Family Health Teams serving about one-quarter of the population), Alberta (where about three-quarters of the province's family physicians work in 39 Primary Health Networks), and Quebec (with plans for 300 Family Medicine Groups to serve three-quarters of the population) (Hutchison et al., 2011). There were significant financial incentives to participate in these multiprofessional practices. In Ontario, for example, with the shift from FFS to blended capitation funding models, there was a 58 percent increase (inflation-adjusted) in payments to physicians between 2003–2004 and 2008–2009 (Henry et al., 2012). During that time family physicians in Ontario also received financial incentives for preventive services such as immunizations and cancer screening, and priority services such as attending births, home visits, palliative care, and prenatal care.

Some reforms have aimed at improving the systematic management of disease. Organized at the provincial level, many include incentive payments for physicians. British Columbia recently introduced its Full Service Family Incentive Program to support the management of congestive heart failure, diabetes, and hypertension; physicians receive annual payments for each patient with one of these conditions whose clinical management is consistent with recommendations in provincial clinical practice guidelines.

What is being done to address health disparities?

Health disparities are a significant issue in health policy in Canada, where specific groups suffer from a higher burden of illness than other residents. Poor people, homeless people, and the approximately 1 million Canadian aboriginals face, on average, poorer housing conditions, fewer educational and employment opportunities, and a significantly higher burden of illness than the general population.

There is no single or central body responsible for addressing health disparities, but several provincial or territorial governments have recently established departments and agencies devoted to addressing population health issues and health inequities. In 2004, the federal government established the Public Health Agency of Canada, which has a mandate to address population health issues, including “reducing health disparities between the most advantaged and disadvantaged Canadians.” In 2005, the federal government launched the Aboriginal Health Transition Fund, a CAD\$200 million (US\$201 million) initiative to address gaps in health status between aboriginal and nonaboriginal Canadians by improving access to health services. In 2004, federal, provincial, and territorial governments agreed to implement a CAD\$100 million (US\$101 million), five-year initiative to increase the number of aboriginal people working in health care, adapt health care education to support culturally appropriate health care, and improve the retention of health care workers in aboriginal communities.

Research and data collection are other areas where efforts have been made to better understand Canadian health disparities. The Canadian Institute for Health Information hosts the Canadian Population Health Initiative, which was established to examine population health patterns and help inform policies to reduce inequities and improve health.

What is the status of electronic health records?

Canada Health Infoway, a federally funded independent not-for-profit organization, works with governments and health organizations to accelerate the adoption of electronic health records and other electronic health information systems (e.g., telehealth, public health surveillance). Uptake of health information technologies has been limited and varies widely across Canada: according to the 2010 National Physician Survey, about one-third of Canadian physicians were using a combination of paper and electronic records, and 16 percent were using only electronic records.

How are costs contained?

Cost control is principally attained through single-payer purchasing power, and increases in real spending principally reflect government investment decisions and/or budgetary overruns. Cost control measures include mandatory annual global budgets for hospitals/health regions, negotiated fee schedules for health care providers, drug formularies, and reviews of the diffusion of technology. They also include human resource restrictions vis-à-vis physicians and nurses.

The federal Patented Medicine Prices Review Board (PMPRB), an independent, quasijudicial body, regulates the introductory prices of new patented medications in Canada. The PMPRB's mandate is to ensure that patented drug prices are not "excessive," on the basis of their "degree of innovation" and through a comparison with the prices of existing medicines in Canada and in seven other countries including the United States and the United Kingdom. The PMPRB regulates the "factory gate" prices and does not have jurisdiction over prices charged by wholesalers or pharmacies, or over pharmacists' professional fees. Jurisdiction over prices of generic drugs and control over pricing and purchasing for public drug plans (and, in some cases, pricing under private plans) is held by the provinces, leading to some interprovincial variation in drug prices.

What major innovations and reforms have been introduced?

Financing reforms: In December 2011 the federal government made a unilateral decision to reform the Canada Health Transfer in fiscal year 2013–2014 (the end date of the 10-Year Plan to Strengthen Health Care). After 2014, federal funding will be distributed to provinces on a purely per capita basis, ending the current provisions to compensate for variations in tax bases across provinces that benefited the less-wealthy provinces.

Mental health: In May 2012, the federally funded Mental Health Commissions of Canada (set up in 2007) published the first national mental health strategy: *Changing Directions, Changing Lives: The Mental Health Strategy for Canada*. The strategy calls for, among other things, an increase in federal and provincial funding for mental health.

Cost containment: Following the recent economic recession, federal and provincial/territorial governments face harder budget constraints. Recent reforms aim to contain costs and to achieve better value for money. Some provinces have enacted generic drug pricing reforms: in Ontario, public plan prices of generics were reduced from 50 percent of the brand-name drug price to 25 percent in 2010 (with the same reduction applying to private plans as of 2012). Also in 2010, British Columbia commenced a three-year phased-in reduction of generic prices from 65 percent of brand-name price to 35 percent. Other areas, such as Saskatchewan and Manitoba, have applied "lean" production methodologies to health care delivery, following the lead of the Institute for Healthcare Improvement in Cambridge, Massachusetts (Marchildon, 2012). In 2012, the Ontario government cut fees for hundreds of physician services, with the expectation that it would save over CAD\$3 million (US\$3 million) that year.

The author would like to acknowledge Diane Watson as a contributing author to earlier versions of this profile.

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The Danish Health Care System, 2012

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What is the role of government?

The Danish national government sets the regulatory framework and does general planning and supervision of health services. Five regions own, manage, and finance hospitals. They also finance general practitioners (GPs), specialists, physiotherapists, dentists, and pharmaceuticals. The 98 municipalities are responsible for nursing homes, home nurses, health visitors, municipal dentists (children's dentists and home dental services for physically and/or mentally disabled people), school health services, home help, and the treatment of alcoholics and drug addicts.

Who is covered?

Coverage is universal. All those registered as residents in Denmark are entitled to publicly financed health care that is largely free at the point of use. In principle, undocumented immigrants or visitors (estimated to number below 2,000) are not covered, but a national voluntary and privately funded initiative by Danish doctors provides access to health care for this population. The Doctors' Association, the Danish Red Cross, and Danish Refugee Aid also support these clinics. Complementary private voluntary health insurance (VHI), provided by not-for-profit organizations, covers cost-sharing for pharmaceuticals, dental care, physiotherapy, and corrective lenses. Various supplementary VHI plans, typically offered by employers, provide access to private treatment facilities and provide lump sums in case of critical illness.

What is covered?

Services: The publicly financed health system covers all primary and specialist (hospital) services based on medical assessment of need. Preventive services, mental health services, and long-term care are also fully covered. Dental services are fully covered for children under 18. There is subsidized coverage of outpatient prescription drugs, dental care, and optometry services. Decisions about service level and the introduction of new treatments are made by the regional authorities (health care), municipal authorities (social care, care for older people, prevention, and some rehabilitation), and the national government based on regulations and national guidelines. There is no defined benefits package.

Cost-sharing: There is no cost-sharing for hospital and primary care services. Cost-sharing is applied to dental care for those age 18 and older (coinsurance of 35% to 60% of the cost of treatment), outpatient prescriptions, and corrective lenses. An individual's annual outpatient drug expenditure is reimbursed at the following levels: below DKK865 (US\$148), no reimbursement (60% reimbursement for minors); DKK865–DKK1,410 (US\$148–\$242), 50 percent reimbursement (60% reimbursement for minors); DKK1,410–DKK3,045 (US\$242–\$522), 75 percent reimbursement; above DKK3,045 (US\$522), 85 percent reimbursement (MISSOC 2011). Private specialists, hospitals, and dentists are free to set their own fees for private patients.

Safety net: There are maximum cost-sharing limits for children, and municipalities provide means-tested social assistance to pensioners (85% of all prescription drug costs are covered if personal wealth is DKK77,500 [US\$13,294] or below). Chronically ill people with high prescription drug usage and costs can apply for full reimbursement of drug expenditure above an annual out-of-pocket ceiling of DKK3,410 (US\$585). Those who are terminally ill can apply for full coverage of prescriptions. Municipalities may grant financial assistance to persons who are otherwise unable to pay for needed medicine after individual evaluation.

How is the health system organized and financed?

Publicly financed health care: Public expenditure accounted for around 85 percent of total health expenditure in 2010 (OECD 2012). A major administrative reform in 2007 gave the central government responsibility for financing health care. Health care is now financed mainly through a centrally collected, earmarked tax set at 8 percent of taxable income. The central government allocates around 80 percent of this revenue to the regions and 20 percent to the municipalities via targeted grants or general grants based on risk-adjusted capitation.

Privately financed health care: The total share of private expenditure for health care was 14.9 percent in 2010 (OECD 2012). Private expenditure for outpatient drugs, glasses and hearing aids, and doctor and dentist treatments accounted for 4.2 percent, 2.4 percent, and 6.0 percent of total health expenditure, respectively. Complementary VHI covering the costs of statutory copayments (mainly for pharmaceuticals and dental care) and services not fully covered by the state (some physiotherapy, etc.) has been common since the 1970s and is provided exclusively by the not-for-profit organization Danmark. Danmark covered around 2 million people in 2007 (36% of the population).

The past decade has seen a rapid growth in the number of people covered by supplementary VHI, typically provided through employers as a fringe benefit. Supplementary policies rose from 130,000 in 2002 to almost 1 million in 2008. A further 2.2 million policies provide a lump sum in case of critical illness. The market for supplementary VHI is dominated by seven for-profit insurers. A conscious goal of the liberal-conservative government (2002–2011) was to facilitate a stronger role for private actors in health care, e.g., by exempting supplementary VHI provided by employers from taxation.

How are health services organized and financed?

Primary care: All general practitioners are self-employed and are paid via a combination of capitation (30%) and fee-for-service (70%). Practice structure is gradually shifting from solo to group practice. Registration with a primary care doctor is required for anyone who chooses the Group 1 coverage option (98% of the population) in which GPs act as gatekeepers to secondary care. People can register with any available local GP. The alternative is Group 2 coverage, which provides free choice of GP and access to practicing specialists without a referral but requires a copayment. Access to hospitals requires referral for both groups.

Outpatient specialist care: Outpatient specialist care is delivered through hospital based ambulatory clinics (fully integrated and funded as other public hospital services), or provided by self-employed specialists in privately owned facilities. Services in the private sector are paid fee-for-service for referred public patients according to general agreements with the regions, and are paid negotiated individual rates for VHI and out-of-pocket services. Denmark has been at the forefront of transforming services from inpatient to ambulatory care, leading to a rapid reduction in average bed days per patient.

After-hours care: After-hours care is organized by the regions and delivered by GPs. Individual primary care practitioners (GPs) also participate on a voluntary basis and receive a higher rate of payment for after-hours than for normal care. After-hours services are mostly provided at clinics that are often co-located with hospital emergency departments. Home visits are carried out for acute cases and patients that are not mobile. Information on patient visits is sent routinely to primary care doctors. There is no national telephone advice line, but each region administers phone services for after-hours consultation, which can refer to home visits or after-hour services. The Greater Copenhagen Region staffs this service with nurses, as opposed to doctors in the other regions.

Hospitals: Almost all hospitals are publicly owned (approximately 97% of hospital beds are public). The regions decide on budgeting mechanisms for hospitals and generally use a combination of fixed-budget and activity-based funding

based on diagnosis-related groups (DRGs). Consequently, hospitals operate on a target level for activity, which is increased annually according to expected productivity gains. Hospital physicians are employed by the regions and paid a salary. Patients have a choice of public hospital upon referral by a GP, and the payment follows the patient to the receiving hospital if the hospital is located in another region. For all procedures, a waiting time guarantee extends choice to private facilities in cases where expected waiting times exceed one month from referral to treatment. Physicians at public hospitals are not allowed to see private patients. Health care professionals in hospitals and in most municipal health services are paid a salary.

Mental health care: Specialized psychiatric care is organized regionally as part of the hospital system and is funded by DRGs. There is no cost-sharing for psychiatric care, but there is some cost-sharing for psychologists in private practice. Social psychiatry and care is a responsibility of the municipalities, which can choose to contract with a combination of private and public service providers, but most are public and work on a salary basis.

Long-term care: Responsibility for chronic care is shared between regional hospitals, GPs, and municipal institutional and home-based services. Hospital-based ambulatory chronic care is financed in the same way as other hospital services. Long-term care outside of hospitals is organized and funded by the municipalities based on needs assessment. Most municipal long-term care takes place in citizens' own homes, while the importance of institutionalized care (nursing homes, "protected housing," etc.) has been reduced over the past three decades because of conscious policy efforts to allow citizens "to stay in their own home" as long as possible. Home nursing (*hjemmesygepleje*) is fully funded after medical referral. Permanent home care (*hjemmehjælp*) is free of charge, while temporary home care can qualify for cost-sharing if income is above DKK138,600 (US\$23,776) for singles and DKK208,200 (US\$35,715) for couples. The municipalities are obliged to organize markets with open access for both public and private providers of home care in order to accommodate free choice of home care services. A few municipalities have also contracted with private institutions for care of older people, but more than 90 percent of residential care institutions ("nursing homes") remain public. Citizens pay 10% of their income (20% of income above DKK145,600 [US\$24,976]) plus heating and electricity charges for staying in residential care institutions.

Hospices are organized by the regions, and may be public or private.

What are the key entities for health system governance?

General regulation, planning, and supervision of health services takes place at the national level through the Ministry for the Interior and Health and the National Board of Health. The National Board of Health is responsible for general supervision of health personnel, and also has important tasks in developing quality management in terms of national clinical guidelines, standards for the national quality program, etc. This usually takes place in close collaboration with representatives from the medical societies. The National Board of Health also has important roles in planning the location of specialist services, approving regional hospital plans, and mandatory "health agreements" between regions and municipalities to coordinate service delivery. Hospital productivity comparisons are published on a regular basis by the National Board of Health, allowing regions and hospital managers to benchmark performance of individual hospital departments.

Regions are in charge of defining and running hospital services and for supervision and payment to (private) GPs and practicing specialists. Municipalities have important roles in regard to prevention, health promotion, and long-term care.

In addition to government, semi-independent organizations play a governance role. The Danish Healthcare Quality Programme consists primarily of medical professionals, and works to develop extensive accreditation standards that influence quality across all health care sectors. It is developed, planned, and managed by the Danish Institute for

Quality and Accreditation in Healthcare (IKAS), a board that comprises representatives from the National Board of Health, the Danish regions, and the Ministry of Health. The International Society for Quality in Healthcare (ISQua) in turn oversees both the Danish Healthcare Quality Programme and IKAS.

What is being done to ensure quality of care?

The Danish Healthcare Quality Programme has now been implemented in all hospitals and is in the process of being introduced in primary care and pharmacies. The program aims to include all health care delivery organizations, and applies both organizational and clinical standards. Organizations are assessed on their ability to satisfy standards in processes and outcomes. The core of the program is a system of regular accreditation based on annual self-assessment and external evaluation (every third year) by a professional accreditation body. The self-assessment involves reporting of performance against national input, process, and outcome standards, which allows comparison over time and between organizations. The external evaluation proceeds from the self-assessment to evaluate the status of providers' overall quality improvement activities and opportunities. Quality data for a number of treatment areas are captured in clinical databases and published on the Web. The data are used for a variety of purposes, including patient choice of hospitals and management of hospital quality.

The Quality Programme's standards enforce the use of national clinical guidelines, where available. A national unit within the National Board of Health is gradually developing such guidelines for all major disease types. The regions develop more specific practice guidelines for their hospitals and other health organizations based on the general national recommendations. Standard treatment packages (patient pathway descriptions) have been established, e.g., for cancer treatment (see below).

Health technology assessments are made locally, regionally, and nationally. They are facilitated and financially supported by a national unit within the National Board of Health and provide important input to decision-making in health policy at all levels.

There are no explicit standardized sanctions or economic rewards tied to performance monitoring. The regions take action in case of poor results, and may fire hospital managers or introduce other measures to support quality improvement. The National Board of Health may step in if entire regions fail to live up to standards. Patient safety is organized as an integral part of the National Board of Health and supported by the regions as the owners of hospitals. Health care staff members at all levels (including GPs and municipal health services staff) are obliged to report accidents and near-accidents to the regional authorities. The regional authorities evaluate incidents and send anonymized reports to the National Board of Health, which collects and publishes the information in an annual database. The system is geared toward learning rather than sanctioning.

In 2007, the Danish government, regions, and municipalities committed to developing and implementing national care pathways for all types of cancer based on national clinical guidelines, with the aim of ensuring that all cancer patients receive fast-tracked care through all stages of care. At the end of 2008, pathways for 34 cancers had been finalized and implemented, covering almost all cancer patients. A national agency also monitors the pathways and the speed at which patients are diagnosed and treated. There is also an emphasis on targeting chronic diseases with prevention and follow-up interventions.

What is being done to improve care coordination?

More and more practices employ specialized nurses, and several municipalities and regions have provided financial support to set up multispecialty facilities, commonly called health houses. The models vary across the country, but often include GPs, practicing specialists, physiotherapists, etc. GPs participate in various formal and informal network

structures. They are formally included in the health service agreements made between the regions and the municipalities to facilitate cooperation and improve patient pathways. Medical homes are encouraged in the sense that GPs are intended to function as coordinators of care for patients, and to develop a comprehensive view of their individual patients' needs in terms of both prevention and care. This principle is commonly accepted, and is supported by the general national-level agreements between GPs and the regions. All general practitioners are linked to electronic information systems that provide discharge letters and can be used for electronic referrals and pharmacy prescriptions.

What is being done to address health disparities?

A government-initiated report in 2011 on the determinants of health disparities led to the formulation of a general action plan. The plan's specific initiatives include: higher taxes on tobacco and unhealthy food; targeted interventions to promote smoking cessation; prohibition of the sale of strong alcohol to young people; establishing antialcohol policies in all educational institutions; further encouragement of municipal prevention activities (e.g., through increased municipal cofinancing of hospital care for residents, which in principle creates economic incentives for municipalities to keep their citizens healthy and out of hospitals); an action plan for improved psychiatric care; and, finally, a mapping of health profiles in all municipalities to be used as a tool for targeting municipal prevention and health promotion activities.

What is the status of electronic health records?

Information technology (IT) is used at all levels of the health system. The national strategy for use of IT in health care is supported by the National Agency for Health IT, *National Sundheds-it* (NSI). Danish GPs were ranked first in a 2008 report by the European Commission on the use of health IT in Europe. A shared, e-based "medical card" with all information on a person's prescriptions and use of drugs is currently being implemented (although with some delays). GPs also have access to an online medical handbook with updated information on diagnosis and treatment recommendations. Another initiative is the gradual implementation of clinical databases to monitor quality in the primary care sector (*DataFangst*). In addition, *Sundhed.dk* is a national IT portal with differentiated access for health staff and the public. The portal 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 and treatments offered, etc. Professionals may also use the system to view records and laboratory test results for their own patients. The portal provides access to the available quality data for primary care clinics. All primary care clinics use IT for electronic records and communication with regions, hospitals, and pharmacies. Each region has developed its own electronic patient record system for hospitals, with adherence to national standards for compatibility. All citizens in Denmark have a unique personal ID, which is used for identification in all public registries including health databases.

How are costs controlled?

Annual negotiations between the central government and the regions and municipalities result in agreements on the economic framework and a national budget cap for the health sector, including overall levels of taxation and expenditure targets. At the regional and municipal levels, management tools used to control expenditure include contracts and agreements between hospitals and the regions, as well as expenditure monitoring. However, the introduction of a one-month general waiting time guarantee (for all services) and predefined treatment "packages" with specified short waiting times between different stages of the treatment path for cancers and other life-threatening diseases has made it more difficult for regions to control expenditures. The one-month guarantee implies that patients can seek access to private treatment facilities at the expense of the home region if they face expected waiting times exceeding one month for any type of treatment.

Policies to control pharmaceutical expenditure include generic substitution by doctors and pharmacists, prescribing guidelines, and systematic assessment of prescribing behavior by the regions. Pharmaceutical companies report prices to the National Board of Health on a monthly basis. The price list is provided to pharmacies, and they are obliged to choose the cheapest alternative with the same active ingredient, unless the prescribing doctor has explicitly stated that he or she prefers a specific drug. Patients may choose more expensive drugs, but have to pay the difference in price. Pharmaceutical expenditure at the hospital level is controlled through coordinated purchasing strategies and guidelines.

What major innovations and reforms have been introduced?

The structural reform of 2007 sought to centralize the administration of hospital care in order to enhance the coordination of service delivery and to improve quality and efficiency. It merged the 14 counties to create five regions and reduced the number of municipalities from 275 to 98. The regions are currently reorganizing their hospital systems, closing or amalgamating small hospitals and building new hospital infrastructure, at a total cost of DKK40 billion (US\$6.9 billion). Reorganization of acute care with stronger pre-hospital services and larger specialized emergency departments is an important aspect of this new structure. The National Board of Health has also issued new guidelines for the localization of specialized treatments and departments. The structural reform also introduced municipal cost-sharing for hospital treatment to encourage municipalities to pay more attention to prevention and health promotion. The municipal contribution covers about 20 percent of the cost of treatment. Mandatory agreements between municipalities and regions on patient pathways, chronic care, and care for older people are also intended to promote collaboration. These agreements are formalized at least once in each four-year election term for municipal and regional councils, and must be approved by the National Board of Health.

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The English Health Care System, 2012

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What is the role of government?

Responsibility for health legislation and general policy rests with Parliament, the Secretary of State for Health, and the Department of Health. The National Health Service (NHS) provides care to all residents, including hospital and physician services and prescription drugs. Under the terms of the NHS Health and Social Care Act 2012, which mandates a major restructuring of the health system, day-to-day responsibility for running the NHS will be handed over to a new governmental organization, the NHS Commissioning Board. The Board will be responsible for managing the NHS budget, overseeing Clinical Commissioning Groups (CCGs, new bodies described below) and ensuring that high-level objectives set for the NHS by the Secretary of State are met. It will commission general practice, dentistry, pharmacy, and optometry, and cancer care and some specialized services for small client groups. All other NHS services will be commissioned by local CCGs, in which general practitioners (GPs) and other clinicians will play a central role. Budgets for public health will be handed over to local authorities, who will establish Health and Wellbeing Boards to improve coordination of local services with particular reference to the need to reduce health disparities. Some national public health functions, including overall responsibility for screening and vaccination programs, will remain with the Department of Health.

Who is covered?

Coverage is universal. All those “ordinarily resident” in England are automatically entitled to health care that is largely free at the point of use through the NHS. Only treatment in an emergency department and for certain infectious diseases is free to people not ordinarily resident, such as visitors or illegal immigrants (Department of Health 2010a). Most private hospital care—largely for elective conditions—is financed through supplementary private voluntary health insurance.

What is covered?

Services: The precise scope of the NHS is not defined in statute or regulation. In practice, it provides or pays for: preventive services, including screening and immunization and vaccination programs; inpatient and outpatient care; physician services; inpatient and outpatient drugs; dental care; some eye care; mental health care, including some care for those with learning disabilities; palliative care; some long-term care; and rehabilitation.

Cost-sharing: There are only a few cost-sharing arrangements for publicly covered services. Outpatient prescription drugs are subject to a copayment (currently £7.65 (US\$12.23) per prescription in England); drugs prescribed in NHS hospitals are free. NHS dentistry services are subject to copayments of up to a maximum of £209 (US\$334) per course of treatment. These charges are set nationally by the Department of Health.

Safety net: The following people are exempt from prescription drug copayments: children under the age of 16 years and those in full-time education ages 16–18; people age 60 or older; people with low income; pregnant women and those who have had a baby in the past 12 months; and people with cancer and certain long-term conditions and disabilities. Patients who need a large number of prescription drugs on a regular basis can buy prepayment certificates which limit their cost to £2 (US\$3.20) a week. Just under 6 percent of prescriptions actually incur the full charge at the point of dispensing; the remainder are exempt from charges (NHS Information Centre 2012a). Young people, students, and

those with low incomes also receive financial support for eyeglasses and dental copayments. Transportation costs to and from provider sites are also covered for people with low income.

How is the health system organized and financed?

Publicly financed health care: In 2010, England spent about 9.6 percent of its GDP on health care. Public expenditure, mainly on the NHS, accounted for about 82 percent of this in 2009 (OECD 2012). Around 76 percent of NHS funding comes from general taxation and 18 percent from national insurance (a payroll tax). The NHS also receives income from copayments, those using NHS services as private patients, and some other minor sources.

Privately financed health care: Most private expenditure is for over-the-counter drugs and other medical products (accounting for just under half of private spending), and private hospital care, including both insured and uninsured costs. Most private hospital care, largely for elective conditions, is financed through voluntary health insurance. About 11 percent of the U.K. population has voluntary insurance, the majority as work-related benefits (Office of Health Economics 2012). In addition, just over a million people are covered through self-insuring schemes run by employers. Private providers must be registered with the Care Quality Commission and with Monitor, but their charges to private patients are not regulated by the government, and there is no public subsidy for either voluntary insurance or provision of private care.

How are health services organized and financed?

Primary care: Primary care is delivered mainly through GPs. There were 39,780 GPs in 8,316 practices in 2011, with an average of 6,651 patients per practice and 1,562 patients per GP. The number of solo practices—currently 1,746—is a third lower than 10 years ago, while there are now nearly 3,500 practices with 5 or more GPs (NHS Information Centre 2012). GPs are normally the first point of contact, and people are required to register with a local GP. The government plans to introduce a “right” to choice of GP in the near future. In some areas walk-in centers offer primary care services, for which registration is not required. Most GPs are private contractors operating under a national contract and are paid using a mixture of capitation, contract payments for specific services, and performance-related bonuses (described below). Although still a minority (around 20%), the number of GPs employed in practices as locums (e.g., standing in when GPs are unavailable because of illness, training courses, etc.) or on a salaried basis is increasing. Some private providers of GP services set their own fee-for-service rates. GPs act as gatekeepers to specialist care.

Outpatient specialist care: Specialists are almost all salaried employees of NHS hospitals. Patients are able to choose which hospital to visit, and the government has introduced the right to choose a particular specialist within a specific hospital (not yet fully implemented). Most outpatient specialist consultations are carried out in hospitals, although consultation may take place in GP practices. Some GPs, called GPs with specialist interests, also offer specialist consultations. Primary care dental services are delivered through contracts with dentists or dental practices for an agreed level of dental services per year within the framework of a nationally determined contract. Most dentists also provide private care. Eye services outside hospitals are provided almost entirely by the private sector.

After-hours care: GPs are no longer required to make after-hours care available to their patients, although a minority still do so. Instead local commissioners contract for these services with a range of providers, including GP cooperatives and private companies, both of which usually pay GPs on a per-session basis. Serious emergencies are handled by hospital emergency departments. In some areas, minor injury units and walk-in centers staffed by nurses deal with less serious conditions. Telephone advice is available on a 24-hour basis through NHS Direct, but a new service, NHS111, is being introduced to take over some of its functions. Details of the care provided by these services are usually sent to the patient’s GP.

Hospitals: Publicly owned hospitals are organized either as NHS trusts, which are directly accountable to the Department of Health, or as Foundation Trusts. Foundation Trusts enjoy greater freedom from central control, have easier access to capital funding, and are able to accumulate surpluses or run (temporary) deficits. The government wants all hospitals (as well as mental health and ambulance services) to become Foundation Trusts in the near future. Both types of hospitals contract with local commissioners to provide services to local populations and are reimbursed for most of these services at the same nationally determined diagnosis-related group (DRG) rates. Public funds have always been used to purchase some hospital care from the private sector, e.g., for mental health patients, but the level has grown in recent years. From 2003, some routine elective surgery and diagnostic services have been procured for NHS patients from freestanding treatment centers owned and staffed by private sector providers. However, the private sector contribution remains low, at around 2 percent of all NHS elective operations. Specialist doctors are employed by NHS hospitals on a salaried basis, but may supplement their salary by treating private patients within private hospitals. Over 50 percent of NHS specialists also work in the private sector (Office of Fair Trading 2011).

Mental health care: Mental health care is an integral part of the NHS. Less serious illnesses are usually dealt with by GPs, but those requiring more advanced treatment, including inpatient care, are treated by mental health or hospital trusts. Many services, including rapid response teams, are provided by community-based staff belonging to mental health trusts. About a quarter of mental health care hospital-based services are provided by the private sector (for-profit and not-for-profit).

Long-term care: The NHS pays for some long-term care (e.g., for those with continuing medical or skilled nursing needs), but in recent years its role has been substantially reduced. Most long-term care is referred to as adult social care, and is provided by local authorities and the private sector. State-funded residential care is means-tested and is available free only to those with less than £23,250 (US\$37,160) in assets. The level of charges for state-funded social care provided at home depends on a local council's interpretation of the national framework for eligibility, and therefore varies from area to area. In 2009, the private sector provided 70 percent of residential care places in the U.K. (including England, Northern Ireland, Scotland, and Wales), with the local authority providing 12 percent and the voluntary sector 18 percent (Laing and Buisson 2010). End-of-life palliative care is provided by the NHS in hospices (usually run by charitable organizations), at home (including care homes), and in hospitals. Separate government funding is available to people with disabilities according to national eligibility criteria, and is not means-tested.

What are the key entities for health system governance?

The Department of Health and the Secretary of State for Health are ultimately responsible for the management of the health system as a whole, but the NHS Commissioning Board will shortly take over some of the functions of the Department of Health, including overall budgetary control and, along with Monitor (described below), responsibility for setting DRG rates for provision of NHS services. The National Institute for Health and Clinical Excellence (NICE) sets guidelines for the NHS on clinically effective treatments and appraises new health technologies for their efficacy and cost-effectiveness; all drugs or interventions that NICE evaluates as clinically effective and cost-efficient are available in the NHS. The Care Quality Commission ensures basic standards of safety and quality through a provider registration system and monitoring of the care standards actually achieved (see below). Monitor is responsible for authorizing NHS trusts to become Foundation Trusts and monitoring their financial performance, with powers to intervene if performance deteriorates significantly. The 2012 Act extends its role to being economic regulator of public and private providers. It will also investigate potential breaches of the NHS competition code. All of these bodies are independent of the Department of Health and accountable directly to Parliament. The 2012 Act provides for the establishment of a new national body, Healthwatch England, to promote patient interests, and for establishing local Healthwatches in each locality. From 2013, these local Healthwatches will support people who make complaints about services and will report quality concerns to Healthwatch England, which can then recommend that the Care Quality Commission take action.

What is being done to ensure quality of care?

An explicit policy toward quality of care was articulated under the Labour government in 1998 (Department of Health 1998). Although the details have changed since then, it comprises three main elements: standard setting, monitoring, and enforcement. Since the policy's inception, the Department of Health has developed a set of National Service Frameworks intended to improve particular areas of care (e.g., coronary heart disease, cancer, mental health, diabetes). Improvement strategies have also been developed for a range of other services including stroke, end-of-life care, and trauma care. Those strategies set national standards and identify key interventions for these care groups. In 2004, the DoH also issued a set of generic standards (i.e., not linked to a particular disease or treatment mode).

More recently, NICE has been charged with developing 150 quality standards for the main pathways of care by 2015. NICE also sets guidelines for the NHS on clinically effective treatments and appraises new health technologies for their efficacy and cost-effectiveness. All drugs or interventions that NICE assesses as clinically effective and cost-effective are available in the NHS. A Web site, NHS Evidence, has been established to provide professionals and patients with up-to-date clinical guidelines for a wide range of conditions.

In 2009, the Care Quality Commission took over responsibility for the regulation of all health and adult social care in England, whether provided by the NHS, local authorities, the private sector, or the voluntary sector. All health and social care providers must be registered by the Care Quality Commission. The Commission monitors provider and commissioner performance using nationally set quality standards, and investigates individual providers where concerns have been raised (e.g., by patients). It can close down poorly performing services.

All doctors practicing in the U.K. are required by law to have a license to practice from the General Medical Council. Similar requirements apply to all professions working in the health sector. A process of revalidation every five years is being introduced for doctors.

The Quality and Outcomes Framework was introduced as part of the new GP contract in 2004 and provides GP practices with financial incentives to improve quality. GP practices are awarded points (the total of which determines part of their remuneration) for keeping a disease register of patients with certain diseases or conditions, managing and treating patients with those conditions, and improving the health of affected patients by, for example, helping them to control their blood pressure or cholesterol levels. GPs can also earn points for good practice organization and good patient experience of care (as measured by patient surveys). These incentives make up on average a quarter of a GP's income. For hospitals, a small portion of revenue is linked to the achievement of a limited number of quality goals through a scheme known as CQUIN (Commissioning for Quality and Innovation). In addition DRG rates for some procedures are linked to best practice.

Since 2010, acute care and mental health care providers have had to produce annual "Quality Accounts," publicly reporting on the quality of services they provide in terms of safety, effectiveness, and patient experience. The primary aim of the reporting is to provide patients with information about provider performance. In the future, Quality Accounts will be extended to other care settings such as general practice.

What is being done to improve care coordination?

GPs increasingly work in multipartner practices employing nurses and other clinical staff who carry out much of the routine monitoring of patients with long-term conditions. Practices provide most of the features of a medical home: they hold treatment records for patients registered with them and direct patients to specialist services in hospitals or elsewhere according to their needs. GPs are not paid a specific amount for care coordination; such activity is carried out as part of their overall contract for personal medical services. Accordingly, they refer patients to other community-based

professionals such as dietitians and community nurses. The Quality and Outcomes Framework offers a financial incentive for GPs to provide many elements of the care required for long-term conditions such as diabetes and heart disease.

The NHS Health and Social Care Act 2012 introduced new duties to promote integrated care. The NHS Commissioning Board, Monitor, and clinical commissioning groups are all charged by the Act with a duty to promote integration. In addition, the Act provides for the establishment of Health and Wellbeing Boards within local authorities to promote integration between health and other services.

What is being done to reduce health disparities?

In 2001, the then Labour government aimed to bring about by 2010 a 10 percent reduction in differences in infant mortality rates between socioeconomic groups and in life expectancy between those living in deprived areas and the general population. Additional resources were made available to areas of poor health to support this policy. The Health and Social Care Act 2012 places duties on the Secretary of State, the NHS Commissioning Board, and CCGs to “have regard” to the need to reduce health disparities. The government’s white paper *Healthy Lives, Healthy People* (Department of Health 2012) announced that a new organization, Public Health England, would be established to support local efforts to reduce disparities. As noted above, finance will be allocated directly to local authorities to pay for public health programs.

What is the status of electronic health records?

Every patient registered with the NHS receives an NHS number, which acts as a unique patient identifier. Most GP patient records are computerized. Some practices use electronic systems to allow patient to make appointments and e-mail their GP but there is no requirement to do so. However, hospital and general practice records are not integrated into a single system.

The previous (Labour) government attempted to introduce a patient record covering all service providers, but had to abandon it because of cost and other factors. The current government is introducing the Summary Care Record, which will store a limited range of data (current medication, adverse reactions, allergies) for all patients except those who choose not to have one. Electronic transfers are widely used for prescriptions from GP practices to pharmacies and for the storage and distribution of digital images (scans, X-rays, etc.). The Choose and Book system, allowing patients to choose where they want to be treated and to book appointments online, is now operational across the country. These developments had been centrally led by the Department of Health. However, the national program is being dismantled, and future developments will be left to localities.

Interest and investment in telecare and telehealth have grown steadily over the past five years, but neither approach is mainstream. Such technology has recently been tested in a large randomized control trial, the results of which are being analyzed.

How are costs controlled?

Budgets for the NHS are set at the national level, usually on a three-year cycle. To control health care use and costs, the government sets a capped overall budget for local purchasers. These are expected to achieve financial balance each year. The new commissioning organisations, CCGs, will be allocated funds by the NHS Commissioning Board which will closely monitor their financial performance.

The current economic situation has resulted in a largely static NHS budget, but demand continues to rise. The NHS has therefore been set a target of £20 billion (US\$32 billion) in savings to be achieved over four financial years up to 2014–15. A number of initiatives, including the following, are in place to help the NHS meet this target.

- Pay for NHS staff has been frozen for all but the lowest-paid workers from 2011 to 2013. A cap of 1 percent per annum has been set for the following two years.
- A DRG-like activity-based funding system known as Payment by Results (PbR) has been introduced for acute hospital services. The aim is to extend it across all health care services. The DRG rate is based on the average cost of providing each procedure or treatment across the NHS as a whole. However, it also specifies an assumed annual improvement in efficiency. The current rates have not increased in line with cost inflation.
- The Department of Health's Quality, Innovation, Productivity, and Prevention program supports NHS organizations in improving quality of care while making efficiency savings, by offering technical and other advice on how improvements can be made.
- The government has proposed cuts of 45 percent to management costs, mainly through the abolition of Strategic Health Authorities and Primary Care Trusts, replacing the latter with CCGs.
- NHS Shared Business Services—a joint venture between the Department of Health and a private company—provides shared functions such as finance, payroll, and e-procurement for an estimated 100 NHS organizations to reduce the costs of back-office services.
- Successive government negotiations with the pharmaceutical industry as part of the Pharmaceutical Price Regulation Scheme have reduced the cost of prescription drugs. Prescribers have been encouraged to prescribe generic equivalents where available; 83 percent of prescriptions are now written for generic drugs, although only 69 percent are dispensed as such (NHS Information Centre 2011b). The Department of Health is developing a new value-based approach to the pricing of branded medicines to replace the PPRS in 2013. The intention is for drugs to be available to the NHS at a price reflecting their value although how this will be determined remains to be seen.
- Initiatives have been taken to cut the costs of purchasing medical supplies, including national and regional contracts designed to achieve savings through bulk purchases.

What major innovations and reforms have been introduced?

The NHS Health and Social Care Act 2012 sets out a large-scale program for reform to be implemented by the end of 2014 (Department of Health 2010b). The broad aim of the reform is to decentralize the way the NHS is run. The NHS Commissioning Board and Monitor will be free from the day-to-day control of the Secretary of State, while the new local purchasing organizations, CCGs, are intended to give clinicians a greater say in how services are designed and delivered.

In areas such as promoting competition in providing NHS services and encouraging new entrants to the market, the new government has continued with existing policies. Most of the policies being pursued to improve care quality and control costs also represent a continuation of existing policies. However, as noted above, in one key respect the government has modified the commitment to competition by placing a new duty on CCGs, the NHS Commissioning Board, and Monitor to promote service integration. The move was prompted by the need to improve care coordination for the growing numbers of people with long-term conditions.

The author would like to acknowledge Sarah Gregory, Claire Mundle and Seán Boyle as contributing authors to earlier versions of this profile.

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What is the role of government?

In 2009, the Hospital, Patients, Health, Territories Reform Act reformed the regional organization of health care delivery by creating Regional Health Agencies, which merge the governance of hospital and community care, public health, population health monitoring, and health care financing. National health budgets (see below) allocate funding to the Regional Health Agencies, which use a range of tools and incentives to determine population needs and contract with providers. Recurrent earmarked funds from the national government are also available to promote the coordination of care, 24-hour access, and multiprofessional and multidisciplinary practices.

Who is covered?

Coverage is universal. All residents are entitled to coverage from noncompeting statutory health insurance (SHI) funds, which are statutory occupation-based entities. Entitlement comes through employment (for salaried or self-employed persons and their families), as a benefit (for people and their families who have become unemployed), and through being a student or retired person. Since the introduction of universal medical coverage (CMU) in 2000, the state has covered the health care costs of residents not eligible for SHI (0.4% of the population). The state covers illegal residents who have applied for residency. Visitors from within the EU are covered, but non-EU visitors are covered for emergency care only. Complementary private health insurance (PHI), covering user charges and/or excluded services (e.g., psychologists, dieticians), covers 95 percent of the population, and is obtained through employers or means-tested vouchers (CMU-C). The statutory health insurance funds now also can provide PHI, competing with private (not-for-profit) companies to cover CMU-C beneficiaries (CMU 2012).

What is covered?

Services: SHI covers hospital care; rehabilitation or physiotherapy; ambulatory care provided by GPs, specialists, dentists, and midwives; diagnostic services; prescription drugs; medical appliances; some prescribed prostheses; and prescribed transportation. It also partially covers long-term and mental health care and provides limited coverage of outpatient vision and dental care. Immunization is covered for individuals over 65 years of age, persons suffering from chronic diseases, pregnant women, and newborns; HPV immunization is covered for adolescent girls; and mammography and colorectal cancer screenings are free for individuals over the age of 50. Other preventive services, including immunizations, are paid for directly by patients (or PHI).

Covered outpatient services are defined in three national positive lists of reimbursable SHI health care procedures, drugs, and devices. Since 2004, SHI has been responsible for defining the benefits package and for setting price and cost-sharing levels in coordination with the Ministry of Health (MoH). Drugs and medical devices are added to the list by the MoH, while procedures are added by SHI, following guidance from the National Authority for Health (HAS). For each item on the positive list, SHI specifies both the reimbursement rate and the official tariff. A separate pharmaceutical list covers inpatient care and expensive and innovative drugs and devices. Otherwise, given the DRG reimbursement scheme, there is an implicit understanding of the range of services that can be delivered to hospitalized patients.

Cost-sharing: Coinsurance rates are applied to all health services and drugs in the SHI benefits package, and vary according to the type of care (inpatient care, 20%; doctor visits, 30%; dental care, 30%); the effectiveness of prescription drugs; and adherence to the recently introduced gatekeeping system (30% for visits to the gatekeeping GP, up to 50% for visits to other GPs). In addition to coinsurance, which can be fully reimbursed by PHI (except refusal of generics or noncompliance with gatekeeping), the following nonreimbursable copayments apply, up to an annual ceiling of €50: €18 (US\$64: \$23) for each inpatient hospital day (€13.50 [US\$17.20] in psychiatric wards), €1.00 (US\$1.30) per doctor visit, €0.50 (US\$0.70) per prescription drug, €2.00 (US\$2.60) per ambulance transport, and €18.00 (US\$23) for hospital treatment above €120.00 (US\$153). These copayments have not changed since their introduction in 2008. Doctors and dentists can extra-bill—that is, charge higher prices than SHI will pay—and the extra-billed amounts may or may not be covered by PHI.

Safety net: Exemptions from coinsurance apply to: individuals with any of 32 chronic illnesses (8.6 million people), with the exemption limited to treatments required for their conditions as listed by HAS; individuals who benefit from either universal medical coverage (CMU, 2 million) or the means-tested vouchers for PHI (CMU-C, 4 million); and individuals receiving invalidity and work-injury benefits. Hospital coinsurance applies only to the first 31 days in hospital, and some surgical interventions are exempt. Children and people with low incomes are exempt from paying nonreimbursable copayments. Since 2000, people with low incomes are entitled to free or subsidized PHI (CMU-C) and free eye and dental care, and cannot be extra-billed by doctors.

How is the health system financed?

Publicly financed health care: Public expenditure accounted for 77 percent of total expenditure on health in 2010 (OECD 2012). SHI is mostly financed by employer and employee payroll taxes (43%); a national earmarked income tax (33%); revenue from taxes levied on tobacco and alcohol (8%); state subsidies (2%); and transfers from other branches of social security (8%). Funds are pooled at the national level, and allocation of funds to providers is determined by the national budgets for 1) public and not-for-profit hospitals, 2) for-profit hospitals, 3) out-of-hospital care, and 4) geriatric care. Within each budget, a regional allocation is made and distributed by the Regional Health Agency. Coverage for those not eligible for SHI or PHI is financed mainly by the state through an earmarked tax on tobacco and alcohol and a 5.9 percent tax on PHI insurer profits.

SHI funds are statutory entities and membership is based on occupation, so there can be no competition between them. Levels of both contribution and benefits vary between funds. The three major funds cover more than 90 percent of the population: 1) salaried employees, 2) rural workers, and 3) self-employed persons. The funds are managed by a board of representatives, with equal representation from employers and employees (trade unions). Every year parliament sets a (soft) ceiling for the rate of expenditure growth in the social health insurance scheme for the following year. Reimbursement for drugs and devices by SHI and PHI is based on a reference price set by the government's national pricing committee.

Privately financed health care: In 2010, out-of-pocket spending accounted for 7.3 percent of total health expenditures and was mainly spent on dental and vision services (OECD 2012). PHI accounted for 13.7 percent of total health expenditure. It is provided mainly by not-for-profit, employment-based mutual associations (*mutuelles*), though also by SHI funds. To enhance access to PHI, a special fund created in 2000 provides vouchers for PHI for low-income individuals and their dependents (CMU-C). PHI originally covered cost-sharing only for SHI-covered services, but a few PHI providers were recently allowed to extend coverage to well-being services that are not covered by SHI. Insurers increasingly offer tailor-made PHI contracts that allow people to choose the rate of coverage for each type of care.

How are health services organized and financed?

Physicians: Solo practice for both GPs and specialists is still the norm. Most physicians are self-employed (59%), with GPs (68%) more likely to be so than specialists (51%). GPs or specialists who are not working in public or not-for-profit facilities are self-employed and paid on a fee-for-service (FFS) basis. As of 2011, the cost per visit (€23 [US\$29]) is identical for specialists and for GPs; depending on the extent of their medical training, physicians may charge above this level. In addition, as of 2009, physicians may opt for the opportunity to receive additional payment through a pay-per-performance system (CAPI, see below). The 2004 health financing reform law introduced a voluntary gatekeeping system for adults (those age 16 and over): although registration with a primary care doctor is not a legal obligation, there are strong financial incentives for patients to have a gatekeeping physician, including higher copayments for visits and prescriptions without a referral from the gatekeeper. More than 85 percent of the population has registered with a GP. Patients are free to choose among GPs and specialists.

After-hours care: After-hours care is delivered by the emergency departments of public hospitals; private hospitals that have signed an agreement with the Regional Health Agency and receive financial compensation; self-employed physicians who work for emergency services; and, more recently, *maisons médicales de garde*, public facilities open after hours, financed by SHI funds and staffed by health professionals on a voluntary basis. Information on facilities that provide after-hours care is made available to GPs by Regional Health Agencies, and there are also telephone advice lines organized by disease and by provider. For example, the SHI has an advice line for diabetic patients (Sophia), and the *mutuelle* MGEN has a line that provides information on risk factors.

Hospitals: Two-thirds of hospital beds are in government-owned or not-for-profit hospitals and are funded by SHI (90%), PHI (7%), or direct patient payment (3%). In addition, all university hospitals are public, and the remaining hospitals are private for-profit clinics. They are individually owned or, increasingly, owned by large corporations (e.g., Générale de Santé). The funding mechanism for private hospitals is the same as that for public hospitals, but the respective share of SHI, PHI, and out-of-pocket costs differs. Since 2008, all hospitals and clinics are reimbursed via the DRG-like prospective payment system, which applies to all inpatient and outpatient admissions. Public and not-for-profit hospitals benefit from additional non-activity-based grants that compensate research and teaching (up to an additional 13% of the budget) and the provision of emergency services, organ harvesting, and transplantation (on average, an additional 10%–11% of a hospital's budget). Doctors' fees are billed in addition to the DRG in private clinics, but in public and not-for-profit hospitals DRG tariffs cover physicians' salaries. Since 1968, hospital physicians have been permitted to see private patients in public hospitals. The 2009 Hospital, Patients, Health, Territories Reform Act restructured the governance of public and not-for-profit hospitals by expanding the role of the hospital director in defining a hospital's strategies and in making decisions regarding operations.

Mental health care: The SHI package covers hospitalization, clinic visits, medication, and community care, but does not cover outpatient psychologist visits, psychoanalysis, or psychoeducation. Mental health care provided by GPs and psychiatrists in private practice is partially covered by SHI; individuals presenting a long-term psychiatric condition are fully covered. Care provided in public and private psychiatric hospitals for adults and children is financed by SHI; patient copayment is 20 percent of a daily tariff that varies among hospitals. Social care and support are provided by state and local governments. Sixty-seven percent of mental health patients are in outpatient facilities; they are either in medical-psychological centers, day clinics, or home care. Twenty-five percent are full-time inpatients, and 9 percent are part-time inpatients. Expenditures for mental health (dementia excluded) represent roughly 8 percent of total health expenditures; hospital care represents two-thirds and community care one-third of mental health spending. Over 90 percent of inpatient expenditure is provided by SHI- and state-funded public or not-for-profit institutions. Public mental health institutions are paid through a capitated budget determined retrospectively. Private institutions charge a per-diem rate in addition to standard fees.

Long-term care: There are currently four sources of funding for long-term health and social care for frail older people in France: 1) The National Solidarity Fund for Autonomy (CNSA), which receives resources from both SHI and Solidarity Day (named for an unpaid working day introduced in 2004) and finances long-term care in nursing homes and community services for older people, as well as a share of the long-term care allowances up to a total amount of nearly €15 billion (US\$19 billion) per year; 2) local authorities, which provide over €2 billion (US\$2.6 billion) per year for long-term, means-tested care allowances; 3) households, for which private out-of-pocket payment for care in a nursing home currently averages €1,500 (US\$1,913) per month per individual; and 4) PHI contracts, which may cover expenses for medical care not fully covered by SHI, as well as a contractual part of housing expenditures.

What are the key entities for health system governance?

The National Authority for Health (HAS) was set up by the government in 2004 to streamline a number of activities designed to improve the quality of patient care and to guarantee equity in the health system. HAS assesses drugs and medical devices, publishes guidelines and requirements for patient safety, accredits organizations, and certifies doctors. HAS assessments are used to determine coverage rates and, indirectly, market prices. Existing technologies are reassessed every five years and, since the 2008 Social Security Finance Act, reassessments have included economic evaluation. The Commission for Economic Evaluation and Public Health has been set up within HAS to advise the HTA process.

The National Union of Health Insurance Funds and the National Union of Complementary Health Insurers were created in 2004, incorporating all SHI funds and private health insurers, respectively. This new governance enables direct negotiations between the government and representatives of SHI, PHI, and professionals' unions.

What is being done to ensure quality of care?

Mandatory accreditation systems supervised by HAS monitor the quality of care in hospitals and clinics, as well as ambulatory care. Hospitals must be accredited every four years by a team of experts. The accreditation criteria and reports are publicly available on the HAS Web site (www.has-sante.fr). CompaqH, a national program that publishes performance indicators, also reports selected results. Quality assurance and risk management in hospitals are monitored nationally, under the authority of the MoH, by the web portal PLATINES, which publishes online technical information, data on hospital activity, and data on control of hospital-acquired infections. Currently, financial rewards or penalties are not linked to public reporting, although the issue remains contested.

Every fifth year, physicians are required by law to undergo an external assessment of their practice in the form of an audit. For hospital physicians, the practice audit can be performed as part of the accreditation process, but for office-based physicians, certification and revalidation are organized by an independent body approved by HAS (usually a medical society representing a particular specialty). Dentists and midwives will soon have to undergo a similar process. In addition, HAS also publishes guidelines on care and defines best-care standards.

Disease registries exist but are considered to include too few patients to ensure sufficient quality of care. The 2004 Public Health Act underlined the need for larger national cohorts, and some, such as that for Alzheimer's disease, are currently being recruited. The 2010 presidential loan is also expected to finance such cohorts (e.g., a cohort of patients with mental health disorders).

Office-based physicians can receive incentive payments through pay-for-performance programs (C APIs) for achieving targets in caring for asthma, diabetes, hypertension, and immunization, and in screening for breast cancer (see below).

What is being done to improve care coordination?

The 2002 Patients' Rights and Quality of Care Act combined diverse provider network initiatives under the concept of "health networks," which are defined by a form of managed care that aims to strengthen the coordination, continuity, and the interdisciplinary nature of health care provision with particular focus on selected population groups, disorders, and activities. Physicians are additionally compensated for coordinating care for chronic patients (€40 [US\$51] per patient). Physicians in solo practice do not employ nurses because, as a rule, nurses do not work in doctors' practices but are self-employed and paid by FFS. Self-employed nurses provide care to patients at home. Physicians in group practice usually do not share a common patient list but aim to ensure continuity of care and mutualize extensive capital investments. About 40 percent of self-employed physicians are involved in such practices.

Provider networks operate disease management programs to improve coordination between providers; to provide services that are currently not part of the SHI benefits package (e.g., dietary advice); to improve access to specialized services; and to experiment with new models of care delivery (e.g., nurses performing tasks formerly reserved for doctors). Provider networks are disease- and region-specific, meaning that aside from performing required periodic performance assessments, networks are free to choose the type of services they want to provide and the professionals involved. Enrollment of both providers and patients is voluntary. The incentive for patients is that networks may offer services that are not usually covered by SHI (e.g., foot care or dietary advice for diabetic patients). The incentive for physicians is that preventive services and patient education can be paid for by SHI. Some PHI plans are developing their own networks, but price discrimination based on enrollment in these networks is not permitted.

What is being done to reduce disparities?

The 2004 Public Health Act made reducing health inequalities a national priority, and set targets for reducing inequities. A strategy was then established and implemented by the directorate of statistics within the MoH and by the National Institute for Prevention and Health Education. At the regional level, Regional Health Agencies have been given a specific mandate to reduce health inequities, and public service contracts with financial incentives are offered to medical students working in underserved areas, on condition that they agree not to practice extra-billing. The 2009 Hospital, Patients, Health, Territories Reform Act attempted to improve access to care in deprived areas by creating disincentives for physicians who practice in oversupplied areas. Opposition from physicians' unions led to the withdrawal of the measure, but nurses' unions did agree to a similar arrangement. The 2011 SHI Finance Act increased the yearly income threshold for beneficiaries of the state-sponsored CMU-C by 6 percent in 2010 and 4 percent in 2011 (currently €661 [US\$843]), and has also set targets to improve access for beneficiaries of the CMU-C (who were sometimes denied care by office-based physicians who wished to extra-bill).

What is the status of electronic health records?

In 2008, the General Inspectorate for Social Affairs published a report that expanded on earlier projects and presented six principles for the success of electronic health record (EHR) technology: 1) to be useful for professionals; 2,3) to be modular and implemented incrementally, based on emerging requirements; 4) to be deployed according to an agreed-upon time frame; 5) to strike a balance between informational requirements and the protection of patients' privacy; and 6) to have clear governance. The report recommends the creation of a high-level committee, chaired by the minister of health and comprising members of parliament and representatives of all stakeholders, to govern the project, and also recommends the creation of a government agency to take charge of health information technology (HIT). It estimates the total cost of developing pilot projects to be €900 million (US\$1.15 billion). In order to improve the interoperability of existing systems and to monitor the creation of a unique patient identifier, the Agency for Health Information Systems (ASIP Santé), a dedicated information systems agency, was created in 2009. In 2011, ASIP Santé launched the EHR project in four regions. The project is currently extended across the entire country and a total of 166,296 patients (0.25% of the population) have been included.

Apart from the EHR project, there are two coexisting HIT systems: one for hospital admissions (the PMSI), used by hospitals to bill SHI, and one for patient reimbursement claims for outpatient and hospital care. The National Health Insurance Inter-Plan Information System (SNIIR-AM) was created in 2004 to connect the two into one comprehensive system, the SHI interfund system, and the unique identifier that allows linkage of PMSI and SNIIR-AM is being pilot-tested. Currently, the PMSI system comprises information on medical diagnoses and procedures performed during an admission, while the SNIIR-AM includes claims data only, with demographic information but no medical information, although some claims can be directly connected to a medical condition.

How are costs contained?

Cost control is a key issue, as the health insurance scheme has faced large deficits over the past 20 years. The economic downturn constitutes a further threat to the state budget in general (the public deficit for 2011 is 5.2% of GDP [INSEE 2012]) and to the health insurance scheme in particular as the revenue base shrinks. More recently, however, the health insurance scheme's deficit has fallen, from an annual €10 billion to €12 billion (US\$13 billion to \$15 billion) in 2003 to €8.6 billion (US\$11 billion) in 2011. This drop may be partly attributable to the following changes that have taken place in the past three years: a reduction in the number of acute-care hospital beds; limits on the number of drugs reimbursed; the removal of 600 drugs from public reimbursement in the past few years; an increase in generic prescribing and use of over-the-counter drugs; a requirement to deliver a generic drug unless specified otherwise on the prescription; the introduction of a voluntary gatekeeping system in primary care; and a basic benefit package for the management of chronic conditions. Since 2008, reimbursement by PHI of some copayments has been discontinued for prescription drugs, doctor visits, and ambulance transport. As of 2011, the drug reimbursement rate has been curtailed, newly diagnosed hypertension has been excluded from the list of fully covered chronic diseases, and reimbursement of transportation for chronically ill patients has been made contingent on whether it is medically justified. However, following the economic downturn, the deficit is expected to have increased to €14.7 billion (US\$18.7 billion) in 2012 because of the reduction in expected revenues.

What major innovations and reforms have been introduced?

There have been major innovations in the governance of public and not-for-profit hospitals and in the creation of Regional Health Agencies that merge sickness funds and state administrations at the regional level. These innovations involve more than simply creating administrative economies of scale: in 2000, a single department was created to take over responsibility for health care and public health policies, managed care, and social services, which previously had been overseen by seven departments.

In April 2009, SHI launched a series of individual contracts with office-based physicians (CAPIs) that introduced a pay-per-performance mechanism, in addition to the traditional FFS and the flat €40 (US\$51) capitation for chronic patients, providing up to €5,000 (US\$6,375) per year for the achievement of targets in caring for asthma, diabetes, hypertension, and immunization, and in screening for breast cancer. Although the contracts were initially opposed by the physicians' unions, the national physicians' regulation authority, and the union of the pharmaceutical industry, roughly 16,000 physicians have signed them, and the average additional payment is €3,100 (US\$3,953) (Ameli 2012). In 2012, the CAPIs dropped their individual-based characteristic and became part of the contractual agreement signed between the SHI and all GPs.

The reform of long-term care financing is a major challenge for the future. The French president announced in 2008 that a new fund would be created. However, discussions surrounding the resources for this new fund are continuing.

In September 2012, a scheme was established by the SHI to encourage the use of generic drugs rather than brand-name drugs. This scheme makes the delivery of generic drugs mandatory (unless otherwise specified by the physician) in

order to be eligible for third-party payment. In other words, only patients who agree to a generic instead of brand-name drug will not pay anything at the pharmacy, while those who request a brand-name drug will have to pay and wait for reimbursement. Although it is early to assess the effectiveness of the scheme, informal reports from the manufacturers indicate a steep decrease in the sales of brand-name drugs.

The author would like to acknowledge Karine Chevreul as a contributing author to earlier versions of this profile.

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The German Health Care System, 2012

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What is the role of government?

Since 2009, health insurance has been mandatory for all citizens and permanent residents (previously, certain populations could choose not to have insurance, though few did so). It is provided by competing, not-for-profit, nongovernmental health insurance funds (called “sickness funds”) in the statutory health insurance scheme (SHI), or by voluntary substitutive private health insurance (PHI). States own most university hospitals, while municipalities play a role in public health activities and own about half of hospital beds. However, the various levels of government have virtually no role in the direct delivery of health care. A large degree of regulation is delegated to the self-governing bodies of the sickness funds and the provider associations. The most important body is the Federal Joint Committee, created in 2004.

Who is covered?

Coverage is universal for all legal residents. About 85 percent of the population is covered by SHI and 10 percent by substitutive PHI. The remainder (e.g., soldiers, policemen) are covered under special programs. Undocumented immigrants are covered by social security in case of illness. All employed citizens (and other groups such as pensioners) earning less than €4,237.50 (US\$5,422.80) per month (€50,850.00 [US\$65,074.00] per year) as of 2012 are mandatorily covered by SHI, and their dependents (nonearning spouses and children) are covered free of charge. Individuals whose gross wages exceed the threshold, civil servants, and the self-employed can choose either to remain in the publicly financed scheme on a voluntary basis (and 75% of them do) or to purchase PHI.

What is covered?

Services: SHI covers preventive services, inpatient and outpatient hospital care, physician services, mental health care, dental care, optometry, prescription drugs, medical aids, rehabilitation, hospice and palliative care, and sick leave compensation. SHI preventive services include regular dental checkups, well-child checkups, basic immunizations, checkups for chronic diseases, and cancer screening at certain ages. All prescription drugs—including newly licensed ones—are covered unless explicitly excluded by law (mainly so-called lifestyle drugs) or pending evaluation. While the broad contents of the benefits package are legally defined, specifics are decided upon by the Federal Joint Committee.

Since 1995, long-term care has been covered by a separate insurance scheme (LTCI), which is mandatory for the whole population. Unlike SHI benefits, however, long-term care insurance benefits are a) dependent on an evaluation of individual care needs by the SHI Medical Review Board (leading either to a denial or to a grouping into one of three levels of care), and b) limited to certain maximum amounts, depending on the level of care. Beneficiaries can choose to receive either a cash amount or benefits in kind. As benefits are usually not sufficient to cover institutional care completely, people are advised to buy supplementary private long-term care insurance.

Cost-sharing: Within SHI, there were only a few cost-sharing provisions (mainly for pharmaceuticals and dental care) until 2004, when copayments were introduced for ambulatory care office visits (to GPs, specialists, and dentists) for adults age 18 years and older (€10 [US\$13] for the first visit per quarter or subsequent visits without referral). Other copayments include €5 to €10 (US\$6 to \$13) per outpatient prescription (unless the price is at least 30% below the reference price, meaning that over 5,000 drugs are effectively free of charge), €10 (US\$13) per inpatient day for hospital

and rehabilitation stays (for the first 28 days per year), and €5 to €10 (US\$6 to \$13) for prescribed medical aids. Sickness funds can offer their insured a range of deductibles and no-claims bonuses. Preventive services do not count toward the deductible. SHI-contracted physicians 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 SHI coverage may be offered to patients paying out-of-pocket. Out-of-pocket spending accounted for 13.2% of total health spending in 2010, mostly on pharmaceuticals, nursing homes, and medical aids (OECD 2012).

Safety net: Children under 18 years of age are exempt from cost-sharing. For adults, there is an annual cap on cost-sharing equal to 2 percent of household income; part of a household’s income is excluded from this calculation for additional family members. The cap is lowered to 1 percent of annual gross income for qualifying chronically ill people; to qualify, these people have to demonstrate that they attended recommended counselling or screening procedures prior to becoming ill. Unemployed people contribute to SHI in proportion to their unemployment entitlements; for the long-term unemployed, the government contributes on their behalf. In 2010, these tax transfers amounted to €15.4 billion (US\$19.7 billion) (about 8% of total SHI revenue).

How is the health system financed?

Publicly financed health care: In 2010, SHI spending accounted for 57.6 percent of total health expenditure (total public spending on health, including statutory long-term care insurance, statutory retirement insurance, statutory accident insurance, and taxes, constituted 77.1%). Sickness funds (there were 145 as of March 2012) are autonomous, not-for-profit, nongovernmental bodies funded by compulsory contributions levied as a percentage of gross wages up to a ceiling. Since 2009, a uniform contribution rate has been set by the government (and has been set in federal law since 2011). Earnings above €45,900 (US\$58,739) per year (as of 2012) are exempt from contribution. As of 2011, insured employees or pensioners contribute 8.2 percent of their gross wages, while the employer, or the pension fund, adds another 7.3 percent, so the combined maximum contribution is around €593 (US\$759) per month. This contribution also covers dependents (nonearning spouses and children). Sickness funds’ contributions are centrally pooled and then reallocated to each sickness fund based on a risk-adjusted capitation formula, taking into account age, sex, and morbidity from 80 chronic and/or serious illnesses. Since 2009, sickness funds have been able to charge the insured person an additional nominal premium if a sickness fund’s revenue is insufficient (or to reimburse patients in the case of surplus revenue). There is a growing amount of tax-financed federal spending on “insurance-extraneous” benefits provided by SHI (especially coverage for children). These expenses are considered to be of common interest and are therefore (partly) covered by general taxes.

Privately financed health care: There were 43 PHI companies in 2010, of which 24 were for-profit and 19 were non-profit organizations. Substitutive PHI covers the two groups that are exempt from SHI (civil servants, who are refunded part of their health care costs by their employer, and the self-employed) and those who have chosen to opt out of the SHI scheme. All PHI insured pay a risk-related premium, with separate premiums for dependents; risk is assessed only upon entry, and contracts are based on lifetime underwriting. PHI is regulated by the government to ensure that the insured do not face large premium increases as they age and are not overburdened by premiums if their income decreases. Since January 2009, private insurers offering substitutive coverage have been required to take part in a risk-adjustment scheme (separate from SHI) to be able to offer basic insurance for people with ill health who are not eligible to return to SHI (e.g., because of their status as being either a pensioner or self-employed) and who cannot afford a risk-related premium. Recent legislation has also aimed to intensify competition between insurers. In order to slow the increase of premiums with age, private insurers are forced by law to set aside savings (aging reserves) from when the insured are young for use when those insured grow older. Previously, these aging reserves remained with the insurer if a person cancelled a policy or changed to another insurer. Since January 2009, however, individual aging reserves have been transferable.

PHI also plays a mixed complementary and supplementary role, covering minor benefits not covered by SHI, access to better amenities, and some copayments (e.g., for dental care). The federal government determines provider fees in both substitutive and supplementary PHI through a specific fee schedule. There are no government subsidies for supplementary PHI. In 2010, all forms of PHI accounted for 9.3 percent of total health expenditure.

How are health care services organized and financed?

Physicians: General practitioners and specialists in ambulatory care offices are by law mandatory members of regional associations. Regional associations negotiate contracts with the sickness funds, are responsible for organizing care, and act as financial intermediaries. However, ambulatory physicians work in their own private practices—around 60 percent of them in solo practice and 25 percent in dual practices. Most physicians employ doctors' assistants, while other non-physicians (e.g., physiotherapists) have their own premises. In 2010, of the 138,472 practicing SHI-accredited physicians in ambulatory care, 64,988 (44%) were practicing as family physicians and 78,075 (56%) as specialists.

Individuals have free choice among general practitioners (GPs), specialists, and, if referred to inpatient care, hospitals. Registration with a primary care physician is not required and GPs have no formal gatekeeping function. However, since 2004, sickness funds have been required to offer their members the option to enroll in a family physician care model, which has been shown to provide better services and often also provides incentives for complying with gatekeeping rules. In January 2007, about 24.6 million SHI insured had the option of subscribing to a family physician care model; about 4.6 million subscribed. About 1.8 million other insured took part in the nationwide model of the Barmer Ersatzkasse, a sickness fund that allows for exemptions from copayments for prescriptions if prescribed by their family physician.

Since 2004, specialized medical care provided by hospital specialists in outpatient care has been introduced. It includes treatment of severe progressive forms of disease and of rare diseases, as well as highly specialized procedures. The Federal Joint Committee will define details of this and the qualifications requirements by the end of 2012.

Physicians in ambulatory care (GPs and specialists) are generally reimbursed on a fee-for-service (FFS) basis with a fee schedule negotiated between sickness funds and physicians. Payments are limited to predefined maximum numbers of patients per practice and reimbursement points per patient. Pay-for-performance has not been established yet. In the fee schedule for PHI (set by the government), a maximum charge is set.

After-hours care: After-hours care is organized by the regional associations of physicians to ensure access to ambulatory care around the clock. Physicians are obliged to provide after-hours care, with regionally differing regulations. In a few areas (e.g., Berlin), after-hours care has been delegated to hospitals. The patient is given an overview of the visit to hand to his or her GP. There is also a tight network of emergency care providers (the responsibility of the municipalities). After-hours care assistance is also available via a nationwide telephone hotline.

Hospitals: Not-for-profit 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 (around one-sixth of all beds). Regardless of ownership, hospitals are staffed principally by salaried doctors. Doctors in hospitals are typically not allowed to treat outpatients (similar to hospitalists in the U.S.) 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. Since 2004, hospitals can also provide certain highly specialized services on an outpatient basis.

The 16 state governments determine hospital capacity, while ambulatory care capacity is subject to delegated decision-making according to rules set by the Federal Joint Committee. Inpatient care is paid per admission through a system of

diagnosis-related groups (DRGs), made obligatory in 2004, currently based on 1,148 DRG categories. The system is revised annually to account for new technologies, changes in treatment patterns, and associated costs.

Mental health care: During the process of dehospitalization in the 1990s, the number of hospitals providing care only for patients with psychiatric and/or neurological illness fell while the number of office-based psychiatrists, neurologists, and psychotherapists working in the ambulatory care sector (all funded by both SHI and VHI, and paid FFS) increased. Acute psychiatric inpatient care was largely shifted to psychiatric wards in general (acute) hospitals. To further promote outpatient care for psychiatric patients (particularly in rural areas with a low density of psychiatrists in ambulatory care), hospitals can be authorized to offer outpatient treatment. Since 2000, ambulatory psychiatrists have been made coordinators of a new set of SHI-financed benefits called sociotherapeutic care (which requires referral by a GP) to encourage the chronically mentally ill to use necessary care and to avoid unnecessary hospitalizations.

Long-term care: Long-term care insurance is mandatory and usually provided by the same insurer as health insurance, and therefore constitutes a similar public–private insurance mix. The contribution rate of 1.95 percent of gross salary is shared between employers and employees; 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 benefits. Eligible beneficiaries are stratified into three groups of care needs dependent on illness or disability severity. As stated above, beneficiaries can choose between in-kind benefits and cash payments (around a quarter of long-term care insurance expenditure goes to these cash payments). Both home care and institutional care are provided almost exclusively by private not-for-profit and for-profit providers. Long-term care insurance covers approximately 50 percent of institutionalized care, and hospices and ambulatory palliative care are fully covered.

What are the key entities for health system governance?

Within the legal framework, the Federal Joint Committee has wide-ranging regulatory power to determine the services to be covered by sickness funds and to set quality measures for providers (see below). To the extent possible, their coverage decisions are based on evidence from health technology assessments and comparative-effectiveness reviews. The Federal Joint Committee is supported by the Institute for Quality and Efficiency (IQWiG), a foundation legally charged with evaluating the cost-effectiveness of drugs with added therapeutic benefits, and the Institute for Applied Quality Improvement and Research in Health Care (the AQUA Institute). Since 2008, the Federal Joint Committee has had 13 voting members: five from the Federal Association of Sickness Funds, two each from the Federal Association of Statutory Health Insurance Physicians and the German Hospital Federation, one from the Federal Association of SHI Dentists, and three who are unaffiliated. Five patient representatives have an advisory role but no vote in the 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 and the DRG catalogue, respectively, which are then adopted by bilateral joint committees. To extend competition beyond these jointly regulated issues, some purchasing powers have been handed over to the sickness funds, e.g., to contract providers selectively within an integrated care contract or to negotiate rebates with pharmaceutical companies.

What is being done 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. Since January 2010, the AQUA Institute has been charged with developing quality assurance across ambulatory and inpatient care. Although there are several approaches and associations to ensure quality of care and patient safety, a national safety agency does not yet exist.

Structural quality is 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. All new diagnostic and therapeutic procedures applied in ambulatory care must be positively evaluated in terms of benefits and efficiency before they can be reimbursed by sickness funds. Hospital accreditation is voluntary. Volume thresholds have been introduced for a number of complex procedures (e.g., transplantations), requiring a minimum number of such procedures for hospitals to be reimbursed.

Process and (partly) outcome quality is addressed through the mandatory quality reporting system for about 2,000 acute-care hospitals. Under this system, more than 150 indicators are measured for 30 diagnoses and procedures covering about one-sixth of all inpatients. Since 2007, all hospitals have been required to publish results on 27 selected indicators defined by the Federal Office for Quality Assurance, enabling a comparison of hospitals.

Many institutions and health service providers include complaint management systems as part of their quality management programs, although they are not obligatory. At the state level, professional providers' organizations are urged to establish complaint systems and arbitration boards for the extrajudicial resolution of medical malpractice claims.

Since 1998, the Robert Koch Institute, an agency subordinate to the Federal Ministry of Health and responsible for the control of infectious diseases and 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. In August 2012, as part of the National Cancer Plan, the federal government introduced a draft bill that proposes the implementation of a nationwide standardized cancer registry in 2018 to improve the quality of cancer care; every hospital will be obliged to document the incidence, treatment, and course of the disease.

What is being done to improve care coordination?

Many efforts to improve care coordination are being implemented. Since the introduction of multispecialty clinics in ambulatory care in 2004, their number had grown from 70 clinics and 251 working physicians to 1,654 clinics and 8,610 working physicians (6.2% of ambulatory care physicians) by 2010. SHI funds also offer integrated-care contracts; GPs receive an average flat rate of approximately €100 (US\$128) per year for each patient enrolled in such a contract.

Legislation in 2002 introduced SHI Disease Management Programs (DMPs) for chronic illnesses to improve the provision of care for chronically ill patients and to improve care coordination between providers in the ambulatory sector. DMPs for diabetes types 1 and 2, breast cancer, coronary heart disease, asthma, and chronic obstructive pulmonary disease are modeled on evidence-based treatment recommendations, with mandatory documentation and quality assurance. Physicians receive an extra payment for their efforts in documentation. Nonbinding clinical guidelines are produced by the Physicians' Agency for Quality in Medicine and by professional societies. In January 2012, 10,618 registered regional DMPs had enrolled almost 6 million patients (about 8% of all SHI-insured). Participating in a DMP is voluntary for patients and can be done through GPs as well as specialists. Sickness funds are free to give patients incentives to enroll, such as exemptions from copayments for pharmaceuticals. Until 2009, participation in DMPs was a separate category in the risk adjustment scheme, giving sickness funds a strong incentive to implement them. Since the risk adjustment scheme was strengthened in 2009, sickness funds receive only a per-capita administration compensation of €168 (US\$215) per year for each insured enrolled in a DMP.

What is being done to reduce disparities?

Strategies to reduce health disparities are mainly delegated to public health services, and the levels at which they are carried out differ from state to state. Health disparities are implicitly mentioned in the national health targets. In 2001, the Federal Center for Health Education initiated a network to promote the health of the socially deprived, a

nationwide cooperation of 53 health-related institutions, e.g., sickness funds and their associations. The law § 20 SGB V makes primary prevention mandatory 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 content and methods. Sickness funds support 22,000 health-related programs according to law § 20 SGB V, e.g., in nurseries and schools.

What is the status of electronic health records?

About 90 percent of physicians in private practice use electronic health records (EHRs) to help with billing, documentation, tracking of laboratory data, and quality assurance. In some regions about 60 percent of physicians use online services to transmit billing information and documentation from DMPs. A unique patient identifier does not exist, as data safety concerns represent a significant obstacle. Nevertheless, many hospitals have implemented EHRs, to varying degrees. The greatest problem with implementing a systemwide EHR is the incompatibility of the different programs within and between hospitals, and between hospitals and ambulatory care.

A national strategy to create an electronic medical chip card was implemented in October 2011 and is expected to be completed by the end of 2012.

How are costs contained?

A central element of the 2007 health reform legislation aimed to enhance competition in health care services with the introduction of various elective insurance schemes (such as DMPs or family physician care models, sick pay for the self-employed, and optional deductible schemes). Enrolling in an elective insurance scheme is voluntarily and the contract lasts for at least three years. Sickness funds are obliged by law to report regularly on the results of these insurance schemes, especially regarding efficiency and savings.

All drugs, both patented and generic, have been subject to reference prices since 2004, unless they can demonstrate added medical benefit. Since 2011, drug companies have been required to produce a scientific dossier demonstrating a drug's added medical benefit, to be evaluated by the Federal Joint Committee and IQWiG within a three-month period. Since 2008, IQWiG has been legally charged with evaluating the cost-effectiveness of drugs with added therapeutic benefits, leading to either inclusion in the reference group in case of no added benefit, or price negotiations between the manufacturer and the Federal Association of Sickness Funds. In addition, rebates by sickness funds to pharmaceutical manufacturers have been negotiated as incentives to lower prices below the reference price.

Recently, reliance on overall budgets for ambulatory physicians and hospitals and collective regional prescription caps for physicians has been replaced by emphasis on quality and efficiency. Physicians are financially liable if they exceed regular volumes for their patient mix above the prescription cap, which complements reference prices for pharmaceuticals.

What major innovations and reforms have been introduced?

During what is known as the 2011 health reform, four acts were introduced in 2010–2012. In 2010, the SHI Financing Act was enacted into law; although conversion to a new model of financing for SHI has not yet happened, this act is a step toward per-capita flat-rate financing of SHI. It legislated 1) the setting of a uniform contribution rate by law, rather than by the federal government; 2) the income-independent supplementary contribution, which individual funds can impose if necessary, and which is no longer limited to 1 percent of the income of a member; and 3) the introduction of social adjustment, paid for out of taxes that are paid into the health care fund as a federal subsidy, to protect members with lower incomes from excessive financial burdens.

The 2011 health care reform also prescribed extensive measures for the pharmaceutical sector. The SHI Reform Act of 2010 and the Pharmaceuticals Market Reform Act of 2011 both provide structural changes and anticipated savings over a defined period of time. The SHI Reform Act has obliged pharmaceutical manufacturers to give a discount of 16 percent (previously 6%) on all drugs that are not subject to a reference price; prices have been frozen at the August 2009 level until the end of 2013.

The final major piece of legislation for health care reform was passed in December 2011: the SHI Care Structure Act consists of a number of measures with the common objective of improving provision of services nationwide. Structural changes particularly relate to ambulatory SHI care and are intended to counteract the problem of under- and oversupply.

The author would like to acknowledge Reinhard Busse and Stephanie Stock as contributing authors to earlier versions of this profile.

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The Icelandic Health Care System, 2012

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What is the role of government?

Icelandic health care is state-centralized and publicly financed. The Parliament, Althingi, provides policy guidance by passing legislation and determining the national budget. The government is accountable to Parliament. The Ministry of Welfare has the responsibility for administering and making policy for health, social security, and social affairs, which includes the promotion of employment and gender equality in Iceland. The Minister of Welfare is a cabinet member accountable to the government and Parliament. The Welfare Committee, a Parliamentary committee, deals with health, social care, and social security; its main roles are to assess legislation in preparation of their enactment, to oversee implementation of these pieces of legislation, and to monitor the work of the Minister of Welfare.

What are the key entities for health system governance?

Five government agencies constitute the key entities for health system governance; they all report to the Minister of Welfare. The Directorate of Health, headed by the Medical Director of Health, is responsible for the overall inspection and monitoring of all types of health care services, regulation and licensing of health professionals, setting standards of health care quality and clinical guidelines, organizing public health measures including immunization and vaccination programs, sponsoring health promotion initiatives, collecting and processing data on health and health care services, promoting research, and handling complaints from health care users. The Icelandic Health Insurance agency (IHI) administers public health insurance and occupational injury insurance. IHI has a commissioning role as it negotiates contracts in addition to purchasing and paying for health care services provided by public and independent service providers. The Icelandic Medicines Agency is responsible for ensuring consumer protection by assessing the quality and safety of medicinal products, confirming that regulatory requirements are fulfilled, and providing this information to health professionals and to the public. The Icelandic Radiation Safety Authority is responsible for the implementation of safety measures against radiation from radioactive substances and radiological equipment. The Icelandic Medicine Pricing and Reimbursement Committee (IMPRC) makes decisions about the reimbursements and the pricing of pharmaceuticals, wholesale pricing, and retail pharmacy mark-up levels. It is responsible for formulating the Icelandic drug price catalogue, which includes the maximum wholesale, wholesale discount, reference, and maximum retail prices.

Who is covered?

The Icelandic health care system is a publicly financed system with universal coverage based on residence in the country. The Health Insurance Act specifies who is insured and what is covered. This legislation ensures that people are covered by public health insurance and have equal access to health care regardless of age, gender, race, or ability to pay. Opting out of the statutory system is not possible. Everyone who has been legally residing in Iceland for six months becomes automatically covered from that time, regardless of nationality, unless intergovernmental treaties stipulate earlier coverage. An exemption from the six month no-coverage period can be issued by the Minister of Welfare and the IHI may pay for necessary care in cases of emergency. The accumulated time during which a person has been insured, employed, or held residence in other Nordic or other EEA member state(s) prior to acquiring legal residency in Iceland counts toward fulfillment of this requirement.

What is covered?

Services: The benefit package and scope of universal coverage provided by public health insurance is defined in the Icelandic Health Insurance Act. It has remained relatively stable since the enactment of its predecessor, the Social Security Act 1971. Almost all health care services including long-term care and mental health care, whether provided by public or private providers, are covered. Inpatient care in public hospitals and private treatment centers, including the use of medications, is covered in full for as long as necessary. On certain predefined and individually assessed conditions, medical treatment in hospitals abroad is also covered. Outpatient physician services (primary care and specialist), pharmaceuticals, and preventive services are covered on a cost-sharing basis.

Cost-sharing: Cost-sharing is found mostly in the form of user charges or out-of-pocket payments. User charges are set and regulated by the Ministry of Welfare. Insured individuals are categorized into four different patient groups, with different user charges applicable to each group: group A consists of insured individuals between the ages of 18 and 66; group B, those ages 67 to 69; group C, those age 70 or older, and recipients of disability pensions in the age group 60 to 69; and group D, all those under 18 years of age and individuals who have been unemployed for six months.

Cost-sharing schemes apply to primary care visits (copayments), hospital outpatient treatments, diagnostic, preventive and screening services, immunization and vaccination programs (a mix of copayments and coinsurance) and pharmaceuticals (a cost-sharing scheme based on reference pricing). Prescription drugs remain free of charge for patients diagnosed with schizophrenia or other psychotic disorders. User charges for physical, occupational, and speech therapy and outpatient psychiatric treatments take the form of coinsurance. A part of the costs of dental care is reimbursed for older persons, recipients of disability pensions, and children. Medical devices required for a patient's safety and ability to function in their environment are provided free of charge and acquisition of any aid apparatus and motor vehicle made necessary by physical impairment is subsidized.

Safety net: Exempt from cost-sharing are children under the age of 18. Home nursing care is provided free of charge as is maternity care which includes hospitalization and medications, home birth care and follow-up home visits by midwives to mothers discharged within 36 hours after birth, and primary care maternity services. General health care provided in schools, teenagers' visits to general practitioners (GPs), and preventive information services are also provided free of charge.

Insured individuals are also entitled to apply for a health care discount certificate if their out-of-pocket costs in one calendar year exceed certain levels, according to their defined patient group (A, B, C, or D) – this certificate will reduce their cost-sharing for the rest of the year.

How is the health system financed?

Publicly financed health care: The Icelandic health care system is a public system with two main sources of financing. The largest proportion of health funding comes from taxes levied by the central government. Further revenue comes from out-of-pocket payments. In 2010, total expenditure on health care was 9.3 percent of GDP, coming down from 9.7 percent in 2009. For 2011, estimated total health care expenditure is 8.8 percent of GDP. In 2010, public expenditure as a percentage of total health expenditure was 80.4 percent and the estimated figure for 2011 is 80 percent.

Privately financed health care: Out-of-pocket payments are a significant source of financing: in 2010, such payments made up 19.6 percent of total health expenditure while the estimated figure for 2011 is 20 percent. There is no private health insurance in Iceland, with exception to substitutive private insurance purchased during the six month period in which new residents are waiting to be eligible for the public scheme insurance.

How are health care services organized and financed?

Primary care: Primary care is mainly delivered by GPs and nurses in public primary care centers (PCCs, built in accordance with the 1973 Health Care Act) across the country. Only a few GPs work in solo private practices, where they are paid on a fee-for-service basis. One or more PCCs operate within each of seven health care regions (HCRs) in Iceland; in total, there are 39 PCCs (three private PCCs exist in the Capital Region, providing about 25 percent of total GP services there). There are on average eight GPs per public PCC. In 2010 there were 0.7 GPs per 1,000 population. GPs in public PCCs are salaried employees but those in private PCCs are reimbursed on a fee-for-service basis, as are all after-hours GP services provided through public PCCs. In 2010, on average, 24 percent of a GP's income came from fee-for-service payments.

As stated in the Health Care Act, PCCs should be patients' first point of contact with the health care system and patients are required to register with a GP of their own choice. However, GPs in the Icelandic health care system do not have a gatekeeping role.

Outpatient specialist care: Patients have direct access to medical specialists of their own choice. In 2010, there were 1.1 medical specialists per 1,000 people and most of them practiced in private clinics in the Capital Region. On average, there were 1.8 visits a year to medical specialists and 2.0 visits to GPs (2.2 and 1.8 visits, respectively, in the Capital Region). Private practice medical specialists are reimbursed on a fee-for-service basis.

After-hours care: After-hours care is provided in primary care clinics, two emergency departments located in urban areas, and emergency rooms in the HCRs. GPs or hospital doctors outside of the Capital Region are on call. Within the Capital Region, after-hours care is provided through PCCs, but after 7 p.m., after-hours care is mostly provided by one big private provider owned by GPs (it provides only after-hours GP services). After-hours GP services are reimbursed on a fee-for-service basis. Information on after-hours patient visits is sent routinely to the patient's registered GP.

Hospitals: In total, there are 18 public hospitals around the country which are financed through fixed global budgets. The main hospital, Landspítali University Hospital in Reykjavik, is the biggest employer in the country. One smaller university teaching hospital is in Akureyri in the north region of the country, one regional hospital is located in each of the HCRs, and a few smaller hospitals are located in the districts. Medical doctors in hospitals are reimbursed on a salaried basis via hospital budgets. Doctors who are employed in an 80 percent post or less in a hospital can see private patients in private clinics outside the hospitals (where they are reimbursed on a fee-for-service basis).

Mental health care: Mental health care is an integral part of mainstream services provided by public health insurance. Those with less-serious illnesses are usually seen by their GPs but those requiring more advanced care are treated by psychiatrists or psychologists in outpatient psychiatric clinics; these health professionals are reimbursed on a fee-for-service basis or by inpatient psychiatric hospitals departments that are financed through global budgets.

Long-term care: Long-term care is provided in the home or in institutions. Home help services are part of the social services provided by local governments and provide various personal assistance and domestic help – copayments are generally required. Home nursing care services are provided by nurses from PCCs free of charge, and are financed by central government budgets. Institutional care is divided up into residential and nursing home care. Eligibility screening for institutional care is administered by professional older-persons care assessment teams as part of a national older-persons care assessment program monitored by the Directorate of Health. There are public, private nonprofit, and private for-profit providers supplying various levels of 24-hour comprehensive institutional care to older persons. Since 2003, nursing home beds have been financed per diem via Residents Assessment Instrument (RAI; it consists of Directorate of Health-monitored quality indicators for nursing homes) adjusted standards. Since 2011, hospital nursing bed budgets

have been adjusted to the same standards. A copayment scheme is in place in which institutional care for older persons, whether nursing beds or residential beds, is means-tested. End-of life palliative care is provided by nursing homes, public hospitals, public hospital–related home care programs, and private nursing home care providers.

What is being done to reduce health disparities?

In the early 1970s, two major pieces of legislation, the 1971 Social Security Act and the 1973 Health Care Act passed in Parliament. Through the former, the entire population in Iceland became covered by one public health insurance scheme. The latter and its later revisions stipulated that all citizens of Iceland should have access to the best health care services available at any given time for the protection of their mental, physical, and social health. The 2008 National Health Insurance Act also restated the right of all residents to health care access irrespective of their ability to pay.

What is being done to ensure quality of care?

The Directorate of Health assesses quality and performance within the health system using quality indicators established by the Minister of Regulations; findings are published in publicly available health reports. The Directorate of Health is also responsible for organizing and maintaining national registries on health, diseases, accidents, prescriptions, births, health care utilization rates, the performance of health services, and admissions to health care facilities. In addition, the Directorate of Health oversees user contacts with health care centers and self-employed specialist physicians in order to gather information on health statuses and health services, monitor services and ensure their quality, and use the registries in planning for health services and scientific research quality. The Directorate of Health is also responsible for licensing health professionals and setting standards and clinical guidelines.

In 2011, it was reported that about 50 percent of patients seeking primary care in the Capital Region were able to schedule an appointment within two days. At university hospitals in Reykjavik, waiting time was 68 weeks for a prosthetic knee replacement and 30 weeks for cataract surgery. There is a “no waiting times” policy for breast cancer and digestive tract cancer treatment, with prompt specialist care and no delay between diagnosis and treatment. Myocardial infarction treatment quality has improved as a result of strong public, clinical, and government engagement in creating preventive measures, increasing public awareness, and reducing risk factors

When introducing new technology and new pharmaceutical drugs into Icelandic health care, the authorities base their decisions on combined health technology assessments from other Nordic countries (with special attention given to those from Denmark and Norway) and from the National Institute for Clinical Excellence (NICE) in the United Kingdom.

What is being done to improve care coordination?

The level of care coordination in the health system is low. However, all patient information can be shared among public PCCs within but not yet across the seven HCRs. Some lab and imaging results are accessible via secure internet access across HCRs and within specific geographic regions, but integration between systems is lacking because images are stored on different digital imaging databases. GPs are required to collect information regarding their patients’ specialist care usage, but in practice, a service gap exists between primary care and more specialized care in the system. Although PCCs are staffed with GPs and nurses, a two-tiered administrative system for doctors and nurses hampers service coordination.

What is the status of electronic health records?

In 2009, Parliament passed the Health Records Act No. 55/2009, which provided the first legal framework for access to and sharing of data among health care institutions. The law allows different health care organizations to securely share the same electronic health record (EHR) database via HealthNet, the law’s preferred database. Patient

rights and protection issues have been thoroughly addressed through the Personal Data Act and associated acts and rules monitored by the Data Protection Authority. Steps to increase interoperability of EHR systems between different HCRs are currently being planned by the government, and the Directorate of Health has launched a project where real-time health information on admissions, discharges, patient days and length of stay, diagnosis, and treatment is being collected via HealthNet using the Icelandic Hospital Minimum Data Set. It is expected that all hospitals in the country will be connected to this project by the end of 2012. Other projects include central access to patients' medication profiles for both health professionals and consumers of health services, and integration of adverse-event reporting into an EHR journal.

All public PCCs and a majority of private GPs in Iceland have computers, and all hospitals and PCCs currently utilize an appointment booking system integrated into the clinical information system. Some PCCs already have online booking systems for patient use, with more clinics to follow soon.

How are costs contained?

Financial resources for health care services are allocated by the Parliament in the national budget each year. The Ministry of Welfare has authority over the implementation of the budget allocation for health and is responsible for monitoring and controlling spending systemwide. It must also ensure that resources are being used in an efficient manner and that spending is in line with existing legislation and government policy. The directors of each agency are responsible for maintaining operations, allocating funds in accordance with an approved budget, and delivering an annual financial statement illustrating good accounting standards to the National Audit.

Adjusted for inflation, health expenditure has decreased 5 percent per year from 2008 to 2010 as a result of expenditure cuts following the financial crisis. Landspítali, the biggest hospital in the country, has reduced its costs by 16 percent over this period by, among other things, shifting patient volumes from inpatient to outpatient care, reducing the number of doctors and nurses on call and overtime hours paid, putting limits on diagnostic tests, saving on pharmaceutical costs, and outsourcing support functions. Over this same time period, the number of beds at Landspítali has gone down by 14 percent, average length of stay by 7 percent, and number of employees by 7 percent. The same trends apply to primary care expenditure in the Capital Region. National expenditure on pharmaceutical drugs has also realized savings because of implementation of a new system in which drug reimbursement selection is subject to monthly revision.

What major innovations and reforms have been introduced?

A reform, to be implemented starting in 2013, of the pharmaceutical cost-sharing system has been introduced, which aims to protect patients against high pharmaceutical costs by setting caps on maximum copayments. Furthermore, all consumers of pharmaceutical drugs will have electronic access to their health care data and doctors will have access to their patients' use of pharmaceutical drugs. Simplified procedures regarding prescribing drugs within hospitals will ensure that the same system is used regardless of whether the patient is staying in a hospital, at home, or in a nursing home.

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The Italian Health Care System, 2012

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What is the role of government?

The central government controls the distribution of tax revenue for publicly financed health care (*Servizio Sanitario Nazionale*, or SSN) and defines a national minimum statutory benefits package to be offered to all residents in every region, the “essential levels of care” (*livelli essenziali di assistenza*, or LEAs). The 19 regions and 2 autonomous provinces have responsibility for the organization and delivery of health services through local health units. Regions enjoy significant autonomy to determine the macro structure of their health systems. Local health units are managed by a CEO appointed by the governor of the region and deliver primary care, hospital care, public health, occupational health, and health care related to social care.

Who is covered?

The SSN covers all citizens and legal foreign residents. Coverage is automatic and universal. Since 1998, illegal immigrants have been granted access to basic services. Temporary visitors can receive health services by paying for the costs of treatment. Modeled after the British National Health Service, the SSN replaced a Bismarckian system of health insurance funds in 1978. Complementary and supplementary private health insurance are also available.

What is covered?

Services: Positive and negative lists are defined using criteria related to medical necessity, effectiveness, human dignity, appropriateness, and efficiency in delivery. Positive lists exist for pharmaceuticals, inpatient care, and preventive medicine. Negative lists include ineffective services; services that are covered only on a case-by-case basis, such as orthodontics and laser eye surgery; and inpatient services for which hospital admissions are likely to be inappropriate (e.g., cataract surgery). Payment rates for hospital and outpatient care are determined by each region, with national rates (determined by the Ministry of Health) as a reference, while the National Drugs Agency sets the reference price for drugs. Regions can choose to offer non-LEA services, but must finance them themselves.

LEAs do not include a specific list of mental health services. Rather, national legislation creates an organizational framework for mental health services, and local health authorities are obliged to define the diagnostic, curative, and rehabilitative services available at each level of care. Nor do LEAs explicitly define the preventive, public health, or long-term care services that are covered by SSN. Instead, they outline general community and individual levels of preventive services to be covered, including hygiene and public health, immunization, and early diagnosis tools. In addition, they broadly state that rehabilitative and long-term inpatient care is to be delivered as part of a standard, inpatient curative care program.

Prescription drugs are divided into three tiers according to clinical effectiveness and, in part, cost-effectiveness. The SSN covers the first tier in all cases, but covers the second tier only in hospitals, and does not cover the third. For some categories of drugs, therapeutic plans are mandated, and prescriptions must follow clinical guidelines. Dental care is generally not covered and is paid for out-of-pocket.

Cost-sharing: Primary and inpatient care are free at the point of use. Procedures and visits can be “prescribed” either by a GP or by a specialist. Since 1993, patients have paid for the total cost per visit up to a ceiling determined by law. The

ceiling currently stands at €36.15 (US\$46.10) per prescription. Therefore, a patient who receives two separate prescriptions (e.g., a magnetic resonance imaging scan and a laboratory test) after a visit has to pay the first €36.15 on each prescription. To address rising public debt, in July 2011, the government introduced, with other economic initiatives, an additional €10 (US\$12.75) copayment for each “prescription.” Copayments have also been applied to outpatient drugs at the regional level and, since 2007, a €25 (US\$31.88) copayment has been introduced for the “unwarranted” use of emergency services—that is, instances deemed to be noncritical and nonurgent (although some regions have not enforced this copayment). Public providers, and private providers under a contractual agreement with the SSN, are not allowed to charge above the scheduled fees.

Safety net: All individuals with out-of-pocket payments over €129 (US\$164.48) in a given year are eligible for a tax credit equal to roughly one-fifth of their spending, but there are no caps on out-of-pocket spending. Exemptions from cost-sharing are applied to people age 65 and over or age 6 and under who live in households with a gross income below a certain threshold (approximately €36,000 [US\$45,900]); people with severe disabilities, as well as prisoners, are totally exempt from any cost-sharing. People with chronic or rare diseases, people who are HIV-positive, and pregnant women are exempt from cost-sharing for treatment related to their condition. Most screening services are provided free of charge.

How is the health system financed?

Publicly financed health care: Public financing accounted for 80 percent of total health spending in 2010 (OECD 2012). The public system is financed primarily through a corporate tax pooled nationally and allocated back to the regions, typically the source region (there are large interregional gaps in the corporate tax base, leading to financing inequalities), and a fixed proportion of national value-added tax (VAT) revenue collected by the central government and redistributed to regions unable to raise sufficient resources to provide LEAs. Regions are allowed to generate their own additional revenue, leading to further interregional financing differences. Every year the Standing Conference on Relations between the State, the Regions and the Autonomous Provinces (set up in 1988 with the presidents of the regions and representatives from the central government as its members) sets the criteria used to define the level of funding for the delivery of LEAs (population size and age demographics). The 2008 financial law established that regions would be financed through standard rates (not yet operationally defined) for specific functions (e.g., hospital care, pharmaceuticals, primary care) set on the basis of actual costs in the regions considered to be the most efficient. Local health units are funded mainly through capitated budgets.

Privately funded health care: In 2010, 17.8 percent of total health spending was paid out-of-pocket, mainly for drugs not covered by the public system (over-the-counter drugs) and dental care (OECD 2012). Out-of-pocket payments can be used to access specialist care and, to a lesser extent, inpatient care delivered in private and public facilities to paying patients. Private health insurance plays a limited role in the health system, accounting for roughly 1 percent of total health spending in 2009. Approximately 15 percent of the population has some form of private health insurance, generally to cover services excluded under the SSN, to benefit from a higher standard of comfort and privacy in hospital facilities, and to have wider choice of public and private providers. Some private insurance policies cover copayments, but the main use of private health insurance is to cover private services, shorter waiting times, better amenities, and unrestricted choice of specialist, or to provide compensation while hospitalized, with patients receiving a fixed sum per day. In 1999, increased tax relief was established for contributions paid to the funds providing complementary insurance.

How are health services organized and financed?

Primary/ambulatory care: General practitioners (GPs) are paid via a combination of capitation and fee-for-service, sometimes related to performance, and are regulated under national and regional contracts. Capitation is adjusted for

age. The majority of GPs operate in solo practices, although the central government and regions have offered economic incentives to encourage group practice and greater integration between GPs and social care, home care, health education, and environmental health services (see below). In 2009, there were approximately 46,300 GPs (30.2%) and 107,000 hospital clinicians (69.8%). Patients are required to register with a gatekeeping GP, who has incentives to prescribe and refer only as appropriate. People may choose any physician whose list has not reached the maximum number of patients allowed (1,500 for GPs and 800 for pediatricians).

Outpatient specialist care: Outpatient specialist care is generally provided by local health units or by public and private accredited hospitals under contractual agreement with a local health unit. Once referred, patients are given free choice of any public or private accredited hospital. Ambulatory specialists are generally paid on a per-hour basis, while hospital-based physicians are salaried employees.

After-hours care: *Guardia medica* is a free telephone health service for emergency cases. It normally operates at night and on weekends, and the doctor on duty usually provides advice in addition to home visits if needed. Following examination and initial treatment, the doctor can prescribe medication, issue employee's medical certificates, and recommend hospital admission. To promote coordination among health care professionals and improve the accessibility of primary care, government and GP associations have agreed to implement a model where GPs, specialists, and nurses coordinate to ensure 24-hour access and avoid unnecessary use of hospital emergency departments. The general structure of the model has been outlined in the national contract with no additional payment attached; regions have been given the responsibility of developing the model. Implementation is uneven across regions.

Hospitals: Depending on the region, public funds are allocated by the local health unit to public and accredited private hospitals. Public hospitals either are managed directly by the local health units or operate as semi-independent public enterprises, similar to the British trust hospitals. A DRG-based prospective payment system operates across the country, although it is generally not applied for hospitals run directly by local health units. There are considerable interregional variables in the prospective payment system, such as how the fees are set, which services are excluded, and the tools employed to influence patterns of care. Regions even use different coding and classification systems. Moreover, in all regions, a portion of funding is administered outside the prospective payment system (e.g., funding of specific functions such as emergency departments and teaching programs). All regions have mechanisms for cutting tariffs once a spending threshold for the hospital sector is reached, to contain costs and offset incentives to increase admissions. Hospital-based physicians are salaried employees. Before 1999, all physicians could earn additional income by treating patients privately on a fee-for-service basis, but since then public-hospital physicians have been prohibited from treating patients in private hospitals; all public physicians who see private patients in public hospitals must now pay a proportion of their extra income to the hospital.

Mental health care: Mental health care is provided by SSN in a variety of community-based, publicly funded settings, including community mental health centers, community psychiatric diagnostic centers, general hospital inpatient wards, and residential facilities. At present, promotion and coordination of mental health prevention, care, and rehabilitation are the responsibility of specific mental health departments in local health units. These are based on a multidisciplinary team, including psychiatrists, psychologists, nurses, social workers, educators, occupational therapists, people with training in psychosocial rehabilitation, and secretarial staff. Flat copayments apply to diagnostic procedures, pharmaceuticals, and specialist visits. Physicians or specialists providing mental health services are reimbursed on a capitation basis.

Long-term care: Patients are generally treated in residential or semiresidential facilities, or in community home care. Residential and semiresidential services provide nurse, physician, and specialist care; rehabilitation services; and medical

therapies and devices. Patients must be referred in order to receive residential care. Cost-sharing for residential services varies widely according to region, but is generally determined by patient income. Community home care is funded publicly, whereas residential facilities are managed by a mixture of public and private, for-profit and nonprofit organizations. Unlike residential and semiresidential care, community home care is not designed to provide physical or mental care services but rather to enhance a patient's autonomy by providing additional assistance throughout a course of treatment or therapy. In spite of government provision of residential and home care services, long-term care in Italy has traditionally been characterized by a low degree of public financing and provision when compared with other European countries.

Until 1999, palliative care was very limited and was concentrated mainly in northern Italy. Much was left to the efforts of voluntary organizations, which still play a crucial role in the delivery of these services. Although much still needs to be done to ensure the diffusion of homogeneous palliative care services, a national policy on palliative care has been in place since the end of the 1990s and has contributed to an increase in palliative care services such as hospices, day-care centers, and palliative care units within hospitals.

What are the key entities for health system governance?

The Ministry of Health draws on the expertise of various institutions for technical support. Key nongovernmental entities include the National Health Council (which provides support for national health planning, hygiene and public health, pharmacology and pharmaco-epidemiology, continuing medical education for health care professionals, and information systems) and the National Institute of Health (which provides recommendations and control in the area of public health). The National Committee for Medical Devices (created in 2003) develops cost-benefit analyses and determines reference prices. The Agency for Regional Health Services, the main institution responsible for conducting comparative effectiveness analysis, is accountable to the regions and the Ministry of Labor. The National Drugs Agency (*Agenzia Italiana del Farmaco*), founded in 2003, is responsible for all matters related to the pharmaceutical industry, focusing on quality, production, distribution, scientific research, and prescription drug pricing and reimbursement policies. It is accountable to the Ministry of Health and the Ministry of Economy and Finance.

The national government defines the benefits package with the Standing Conference on Relations between the State, the Regions and the Autonomous Provinces. Decisions are based mainly on clinical effectiveness and appropriateness rather than cost-effectiveness. At the regional level, some governments have established agencies to evaluate and monitor local health care quality and provide technical comparative effectiveness assessments and scientific support to regional health departments (see below). Regional governments underwrite annual "Pacts for Health" that link additional resources to the achievement of health care planning and expenditure goals.

What is being done to ensure quality of care?

The national and regional ministries, which are responsible for upholding quality, ensure that LEA services are provided and waiting times are monitored. Several regions have introduced effective programs for prioritizing the delivery of care on the basis of clinical appropriateness of services prescribed and patient severity (France et al., 2005). All doctors under contract with the SSN must be certified, and all SSN staff participate in a compulsory continuing education program. Private hospitals must be accredited by the region in which they operate in order to contract with the SSN. The National Commission for Accreditation and Quality of Care is responsible for outlining the criteria used to select providers and for evaluating the accreditation models, which are regionally selected and vary considerably across the system.

A national program for producing clinical guidelines, called the National Plan for Clinical Guidelines, has been implemented in recent years. In addition, in 1995, national legislation stated that all public health care providers should issue

a “health service chart” that provides the public with information on service performance, highlighting quality indicators, waiting times, and a strategy for quality assurance, while also outlining the process by which patients can make complaints in the system. These charts have been adopted by the private sector for its accreditation process, and must be published annually, although dissemination methods are decided regionally. Most providers issue performance data through leaflets and the Internet, while nurses and other medical staff are offered financial incentives for performance (linked to manager evaluations but not to publicly reported data).

In 2003 the National Technical Committee on Clinical Risk was established, and a year later the Working Group for the Assessment of Methodological Approaches for the Evaluation of Clinical Risk was formed. In February 2006, the two groups merged into the Working Group on Patient Safety, and in 2007 the Ministry of Health initiated the National System for Patient Safety as a two-year pilot project, which also functions as the National Observatory for Patient Safety in collaboration with the Working Group on Patient Safety.

What is being done to improve care coordination?

In the past few years general practice has witnessed a transformation, with the solo practice model being progressively modified by new organizational forms (networks, groups, etc.), particularly in the northern part of the country. Specifically, recent legislation encourages multidisciplinary teams to work in three ways: base group practice, where GPs from different offices share clinical experiences, develop guidelines, and participate in workshops that assess performance; network group practice, which functions like base group practice but allows GPs to access the same patient electronic health record system; and advanced group practice, where GPs share the same office and patient health record system, and are able to provide care to patients beyond individual catchment areas.

Also in recent years, significant inroads have been made into better integration of health and social care services, with the vision of shifting long-term care from institutional services to community care with an emphasis on the home. The community home care scheme was founded as part of the National Health Plan for 1998–2000, and establishes a home care network that integrates the competencies of nurse, GP, and specialist physician with the needs and involvement of the family. GPs oversee the home care network, liaise with social workers and other sectors of care, and take responsibility for patient outcomes.

What is being done to reduce health disparities?

Interregional inequity is a long-standing concern. The less-affluent southern regions trail the northern regions in the number of beds and availability of advanced medical equipment, have more private facilities, and have less-developed community care services. Data show a rise in interregional mobility in the 1990s, particularly from southern to central and northern regions (France, 1997). Income-related disparities in self-reported health status are significant, though relatively low and similar to those observed in the Netherlands, Germany, and other European countries (Van Doorslaer and Koolman, 2004).

The National Health Plan for 2006–2008 cites overcoming large regional discrepancies in care quality as a key objective for future reform. The Ministry of Health and Ministry of Economics and Finance signed an agreement in April 2007 to direct EU resources toward health services in eight regions in the south as a first step in reducing this persistent variation. To avoid inequalities among regions and to provide equal access to LEAs, regions receive a quota from an equalization fund (the National Solidarity Fund), which aims to reduce inequalities between northern and southern regions. 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.

What is the status of electronic health records?

In 2001, the New Health Information System (NSIS) was developed to establish a universal system of electronic health records that connects every level of care and provides information on the services delivered, resources used, and associated costs. The NSIS has been implemented incrementally since 2002, but is not yet universal. A core part of NSIS is represented by a nationwide clinical coding program, the “bricks” program, aimed at defining a common language to classify and codify concepts in a uniform manner; to share methodologies for measuring quality, efficiency, and appropriateness of care; and to allow an efficient exchange of information between the national level and regional authorities. The bricks program has been the focus of considerable effort and is one of the most mature elements of Italy’s developing electronic health program. Some regions have developed computerized networks connecting physicians, pediatricians, hospitals, and territorial services to facilitate communication among health care professionals and to improve continuity of care. These networks allow automatic transfer of patient registers, services supplied to patients, prescriptions for specialist visits and diagnostics, and laboratory and radiology test outcomes.

How are costs contained?

Containing health costs is a core concern for the central government, as public debt in Italy is among the highest in industrialized nations. Fiscal capacity varies greatly across regions. Recently, the central government has imposed specific recovery plans on those regions that have generated financial deficits in health care expenditure. The plans identify tools and measures needed to achieve economic balance. Those generally include revising hospital and diagnostic tariffs, reducing the number of hospital beds, increasing copayments for pharmaceuticals, and reducing human resources through limits on staff turnover.

In 2007, the Agency for Regional Health Services, in collaboration with the Ministry of Health, was given authority to conduct Health Technology Assessments (HTAs) and disseminate the implementation of its findings at the regional level, but HTAs are not yet formalized or undertaken systematically. Very few regions currently have an HTA agency in place, but among those that do the primary function of the HTA is to evaluate individual technologies, and the assessments are not mandatory for new or referred procedures and devices. However, reference prices for medical devices and pharmaceutical prices are set according to cost-effectiveness studies carried out by the National Committee for Medical Devices and National Drugs Agency, respectively. Furthermore, the National Pharmaceutical Formulary bases coverage decisions in part on clinical effectiveness and cost-effectiveness. Prices for reimbursable drugs are set in negotiations between the government and the manufacturer according to the following criteria: cost-effectiveness for pharmaceuticals where no effective alternative therapies exist; comparison of the prices of alternative therapies for the same condition; costs per day compared with those of products of the same effectiveness; the financial impact on the health system; the estimated market share of the new drug; and average prices and consumption data from other European countries. Prices for nonreimbursable drugs are set by the market.

What major innovations and reforms have 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. Significant innovations can be found in:

- primary care: regions are developing and supporting group practices and collaboration between professionals, as well as attempting to establish medical homes;
- psychiatric care;
- home care, with several projects involving multiprofessional teams;
- pharmaceutical care: both the National Drugs Agency and the regions are particularly active in coordinating guidelines and rules to promote appropriate and cost-effective prescribing; and

- hospital care: various innovations have been introduced concerning the overall organization, management of operations (e.g., planning of surgical theaters and delivery of drugs), and health information technology (e.g., electronic medical records, automation of administrative and clinical activities).

Regarding the organization and delivery of care, the 1992 reform aimed toward a quasi-market for health care services, with local health units and regions able to contract with competing public and private accredited providers. This new model of competition has emerged to varying degrees across regions and has gradually changed. In some regions, the model has been fully implemented (e.g., Lombardia in the late 1990s), while in others the actual allocation of resources to hospitals has never followed competitive mechanisms (as in southern Italy). In addition, market mechanisms have increasingly evolved to balance financial incentives for quality and efficiency with clear safeguards for the financial viability of the system. Regions have used the accreditation system and introduced caps on spending to create barriers to entry and to maintain control over expenditure. With regard to cost containment, in August 2012 the national parliament passed a law aimed at curbing and rationalizing public expenditure (so called “spending review”). The law further promoted the prescription of generic drugs, cut the hospital beds standard from four per 1,000 people to 3.7, and reduced the public financing of the SSN by €900 million (US\$1.15 billion) in 2012, €1.8 billion (US\$2.3 billion) in 2013, €2 billion (US\$2.6 billion) in 2014, and €2.1 billion (US\$2.7 billion) in 2015.

The author would like to acknowledge Andrea Donatini, Sarah Jane Reed, and David Squires as contributing authors to earlier versions of this profile.

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The Japanese Health Care System, 2012

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What is the role of government?

The government regulates almost all aspects of the universal public health insurance system. The national government sets the fee schedule by developing consensus among stakeholders; gives subsidies to local governments, insurers, and providers to implement its policies; and establishes and enforces detailed regulations for insurers and providers. Japan's 47 prefectures (regions) and 1,742 municipalities are also involved, as local governments, in operating the health system.

Who is covered?

About 3,500 insurers participate in the universal public health insurance system. Employees and their dependents under age 75 are required to enroll in the coverage offered either by their employers (if employed by large companies) or the Japan Health Insurance Association (if employed by small- or medium-sized companies). The remaining population under age 75 (unemployed, self-employed, retired, and others) is covered by municipal-run "Citizens Health Insurance" plans. Those age 75 and over are covered by health insurance plans operated by insurers established in each prefecture ("Health Insurance for the Old-Old"). Individuals cannot choose their plan. Those who neglect to enroll must pay back up to two years of premiums when they reenter the system (although public assistance will cover them if they are unable to pay this fee). Resident noncitizens and long-term visitors also are required to obtain coverage; undocumented immigrants are not covered. Supplementary private health insurance is held by the majority of the adult population, with benefits provided mainly in the form of lump-sum payments, such as daily amounts for hospitalization.

What is covered?

Services: All plans provide the same national benefits package, which covers hospital care, ambulatory care, mental health care, approved prescription drugs, and most dental care; it does not cover eyeglasses. Since 2000, long-term care has been covered under its own insurance system, administered by municipalities. A number of preventive measures are publicly provided to those age 40 and older, including screening, health education, and counseling.

Cost-sharing: All enrollees have to pay coinsurance of 30 percent for services and goods covered, except for children (20%) and people age 70 and over with low incomes (10%). In 2009, out-of-pocket payments for cost-sharing accounted for 16.0 percent of total health expenditures. Some employer-based health insurance funds offer reduced cost-sharing. Providers are prohibited from charging extra fees except for some services specified by the Ministry of Health, Labour and Welfare, including amenity beds, "experimental treatments," the outpatient services of large multi-specialty hospitals, after-hours services, and hospitalizations of 180 days or more.

Safety net: Catastrophic coverage stipulates a monthly out-of-pocket threshold above which a coinsurance rate of only 1 percent copayment is applied. The threshold varies according to enrollee age and income (for example, 80,100 yen [US\$999] for people under age 75 with an average income). The threshold works as a ceiling for low-income people, who do not pay more than 35,400 yen (US\$441) a month. Subsidies (mostly restricted to low-income households) reduce the burden of cost-sharing for people with disabilities, mental illness, and specified chronic conditions. Annual expenditure on health services and goods, including over-the-counter drugs, of between 100,000 yen and 2 million yen (US\$1,247 and \$24,931) can be deducted from taxable income. There is an annual ceiling of 670,000 yen (US\$8,352)

for households that use both health and long-term care. Enrollees with employer-based insurance who are on parental leave are exempt from payment of premiums. Citizens Health Insurance enrollees with already low income and those with moderate income who face sharp, unexpected income reductions are eligible for reduced premium payments.

How is the health system financed?

Publicly financed health care: In 2009, 80.5 percent of total health expenditure was financed through the public health insurance system (OECD 2012). Premiums accounted for approximately half of total health expenditure. Citizens Health Insurance insurers levy premiums on a per-capita, per-household, income-related, and asset-related basis, and employer-based insurers levies premiums on wages. Employers pay half of these premiums for their employees. Premium rates of employer-based plans offered by statutory insurance societies, which are established by large employers, vary between 3 percent and 10 percent of their income. On the other hand, rates for employees of small and medium-sized employers, insured by the Japan Health Insurance Association, are around 10 percent. Rates also vary between prefectures, albeit on a smaller scale. Government employees are covered by their own system of insurers (known as Mutual Aid Societies), as are some groups of professionals (e.g., doctors in private practice). Government subsidies are provided mainly to Citizens Health Insurance insurers, Health Insurance for the Old-Old insurers, and, to a lesser extent, small-business employer-based insurers. There are cross-subsidies from Citizens Health Insurance and employer-based insurance to Health Insurance for the Old-Old, and between Citizens Health Insurance and employer-based insurance, calculated by factoring in the number of enrollees ages 65 to 74.

Privately funded health care: Almost all health care is provided in the public health insurance system, and therefore provision of privately funded health care has been limited to such dental services as orthodontics and expensive artificial teeth, and treatments of traffic accident injuries. The treatments, however, are usually paid by compulsory and/or voluntary automobile insurance.

Private health insurance developed, historically, as a supplement to life insurance. It usually pays a lump sum when insured persons are hospitalized over a defined period and/or diagnosed with cancer or any of a number of other specified chronic diseases. More than 70 percent of adults hold this kind of insurance. In the past decade, however, complementary private health insurance policies sold separately from life insurance have been on the rise. More than 23 million policies were valid in 2010 (Life Insurance Association of Japan 2012). Part of an individual's life insurance premium (up to 40,000 yen [US\$499]) can be deducted from taxable income.

How are health services organized and financed?

Primary care: Primary care and specialist care are not regarded as distinct disciplines, although it has been argued that they should be. Traditionally, physicians are trained as specialists, then choose their work sites in clinics and hospitals. Clinics are owned mainly by physicians or by medical corporations, which are usually controlled by physicians, but some clinics are owned by the national government, local governments, or public agencies. Clinics provide primary care as well as specialist care, although specialist care requiring hospitalization and the use of expensive medical devices is usually provided by hospital outpatient departments. Registration is not required, but the government asks patients to choose their family physician. Patients can choose and drop in at any clinic. There is no gatekeeping, but financial incentives exist, such as extra-billing—charging a higher price than insurance will reimburse—at some hospitals when patients visit clinics prior to going to those hospitals' outpatient departments. Virtually all clinics dispense medication (which doctors can provide directly to patients). The use of pharmacists is growing, however; in 2008, about two-thirds of prescriptions were filled at pharmacies.

Clinic-based physicians are salaried or self-employed. Clinics receive fees from insurers and corresponding copayments from patients. Fees are calculated using a complex schedule. It is a sum of basic fees for services provided, top-ups for

uncompensated care, monthly payments for chronic disease management, and certain other payments. The relative proportions of these payments are not clear, but most are paid on a fee-for-service basis.

After-hours care is provided by hospital outpatient departments, where on-call physicians are available, and by regular clinics and after-hours care clinics. Hospitals and clinics are paid extra fees for after-hours care, including telephone consultations. Usually, after-hours care clinics are staffed by physicians and nurses and owned by local governments, to which local medical societies provide human resources. The national government grants subsidies to local governments for these clinics. Information on the patient is provided with referral if necessary. There is a national pediatric medical advice telephone line called Telephone Advice on Children's Medical Emergencies for after-hours care.

Hospitals: Approximately 55 percent of hospital beds are in private nonprofit hospitals; the rest are in public hospitals, which tend to be larger than private. Private for-profit companies are virtually prohibited from owning and managing hospitals. Payments to hospitals from the public health insurance system include physicians' costs, who are usually employed by the hospital on a salary basis. Public-hospital physicians can practice privately with approval from their hospitals, but in such cases they usually provide services covered by the public system.

While patients in general are free to self-refer, some large hospitals and academic medical centers charge extra fees to patients not referred by a physician. Roughly half of all acute-care hospital beds are funded solely on a fee-for-service basis, and the other half are partially funded by per-diem payments with Diagnosis Procedure Combination (DPC) modification. Hospitals voluntarily elect to receive DPC payments or remain under fee-for-service; DPC rates are multiplied by a hospital-specific coefficient, so as to keep them relatively in line with fee-for-service payments.

Mental health: Japan has the largest number of psychiatric beds per capita in the world, but has been taking some steps in the past decade to move mental health care into the community. Approximately 80 percent of psychiatric beds are private and nonprofit, and providers are generally paid on a fee-for-service basis. Mental health care is covered under the public health insurance system, along with the standard 30 percent copayment, although financial protections exist that include reduced cost-sharing for patients recently discharged from psychiatric institutions. Outpatient and home mental health services, including psychological therapies, are also covered.

Long-term care: Long-term care has traditionally been provided by hospitals far more routinely in Japan than in other countries, although directing more patients to nursing home equivalents is a policy focus. Since 2000, the national Long-Term Care Insurance scheme, administered by the municipalities, covers those age 65 and older and some disabled people ages 40 to 64. It covers home help, home nursing, respite care, and domiciliary care, but not medical services. Palliative care in hospitals is covered by public health insurance. Medical services of home palliative care are covered by public health insurance, while nursing services are covered by long-term care insurance. Roughly half of the financing comes through taxation and half through premiums. Premiums vary by municipality and are linked to income (set at six different premium levels for people age 65 and older, and 1 percent of income, up to a ceiling, for those ages 40 to 64). A 10 percent copayment applies to all covered services, up to an income-related ceiling. There is additional copayment for bed and board in institutional care, but it is waived or reduced for those with low income. Providers are both for-profit and nonprofit, but for-profits are not allowed in institutional care.

What are the key entities for health system governance?

The Social Security Council, a statutory body within the Ministry of Health, Labour and Welfare, is in charge of national strategies on quality and safety, cost control, and setting provider fees in health care. The national government and prefectures make cost-control plans. The Japan Council for Quality Health Care, a nonprofit organization, works to improve quality throughout the health system and to develop clinical guidelines, although it does not have

any regulatory power to punish poorly performing providers. Specialist societies also produce clinical guidelines by themselves. Technology assessment of pharmaceuticals and medical devices is conducted by the Pharmaceutical and Medical Devices Agency, a regulatory agency of the government. Assessments are conducted only in medical, social, and ethical terms, not in economic terms. The Central Social Insurance Medical Council decides coverage of pharmaceuticals and medical devices in the public health insurance system. Nonprofit organizations work for 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 have members representing patients. The Japan Fair Trade Commission is tasked with promoting fair competition among providers and medical device companies.

What is being done to ensure quality of care?

Under law, prefectures are responsible for making health care delivery plans, which include detailed planning on cancer, stroke, acute myocardial infarction, diabetes mellitus, psychiatric disease, emergency medicine, pediatrics, prenatal medicine, rural medicine, disaster medicine, and home care. These plans include structural, process, and outcome indicators, as well as strategies for effective and high-quality delivery. Waiting times, in general, are not monitored by the government, but in some clinical areas, such as palliative care, there is cause for concern. There are structural regulations of health care delivery, including those concerning workforce, infrastructure, and medical devices, but relatively few that apply to process and outcomes. Hospitals can be sanctioned through reduced reimbursement rates if staffing per bed falls below a certain ratio. Prefectures are in charge of annual inspection of hospitals. Hospital accreditation, on the other hand, is voluntary and undertaken largely as an improvement exercise; roughly one-third of hospitals are accredited by the Japan Council for Quality Health Care. It does not, however, disclose names of hospitals that have failed the accreditation process. About 300 hospitals voluntarily participate in benchmarking projects and publicly report on quality indicators. The government has developed cancer registries in cooperation with local governments and has recently supported medical societies in developing them. Medical device registries are relatively undeveloped, although the Pharmaceutical and Medical Devices Agency has started a registry for Mechanically Assisted Circulatory Support.

The government conducts national patient surveys every three years. Clinical audits are voluntary. After initial physician certification through the national examination, no revalidation is required. However, specialist societies have introduced revalidation for qualified specialists. Public reporting on performance is being discussed, but is not yet available.

Every prefecture has a medical safety support center for handling complaints and promoting safety. Since 2004, advanced academic and public hospitals are required to report adverse events to the Japan Council for Quality Health Care.

What is being done to improve care coordination?

Provider payment in Japan has traditionally been dominated by fee-for-service, which is still near-universal in outpatient care. Clinics are mostly physician-led, with nurses playing less of a role in caring for patients. Multispecialty groups or clinics are not common. Rather, physicians refer patients to each other if necessary. However, patients sometimes need to see many physicians before meeting appropriate specialists for their health needs. Care coordination has developed differently in different areas. Since 2008, financial incentives have been introduced in order to try to improve care coordination. Hospitals admitting stroke victims or patients with hip fractures can get an extra fee if they use post-discharge protocols and make contracts with clinic physicians to provide follow-up care after discharge. Clinic physicians also receive an extra fee for seeing these referred patients. The effect of these incentives has yet to be evaluated.

What is being done to reduce health disparities?

In 2012 the government revised its health promotion objectives, known as Health Japan 21, which made reducing health disparities a general goal. The objectives include a target for reducing disparities in healthy life expectancies

between prefectures. The government also aims to reduce disparity in cancer treatment delivery; it gives subsidies to prefectures to develop cancer care centers.

What is the status of electronic health records?

The New Strategy in Information and Communications Technology (IT), released in 2010, outlines the following four goals regarding the health sector: 1) to develop patient electronic medical records that can be accessed by all providers; 2) to develop health information technology and telehealth platforms that help link patients with doctors and nurses in underserved areas; 3) to create a platform that can monitor pharmaceutical prescriptions and adverse events in real time, in order to improve patient safety and monitoring; and 4) to create a claims database of all conditions and interventions to facilitate assessment of community needs and development of interventions. In spite of a number of initiatives over the past decade, electronic health records have not widely been used. Electronic health record networks have developed only as experiments in selected areas. Unique patient identifiers and standards for information exchange have been discussed, but are yet to be established. Interoperability between providers has been established in the selected areas mentioned above but not in general. Consequently, a patient can make appointments online in some clinics and hospitals but not in others. Currently, experiments are being carried out to make personal health information available to patients and providers via cloud computing. The government has made electronic billing obligatory in the public health insurance system for all providers except those without the necessary staffing and instruments. In 2011, almost all hospitals used electronic billing, compared with 80 percent of medical clinics and more than 30 percent of dental clinics.

How are costs contained?

A critical cost-containment mechanism is the regulation of prices paid for all health care services included in the national benefits package. All health insurers in the public health insurance system pay providers according to a national fee schedule. Providers are banned from charging above mandated fees except for amenity beds and other specified services, as previously described. Every two years, the fee schedule is revised. After informal stakeholder negotiations, the national government first determines the overall rate of estimated change in public health care expenditures, and then the rates of changes in expenditures for medical services, drugs and devices, dental services, and pharmacy services. The fee revisions for drugs and devices are then determined based on a market survey of their actual current prices (which are often less than the listed prices on the fee schedule); fees are revised to 2 percent above the average prices weighted by volumes of sales. Furthermore, drug fees can be revised downward for new drugs selling in greater volume than expected and for brand-name drugs when generic equivalents hit the market. For medical, dental, and pharmacy services, the Central Social Insurance Medical Council revises fees on an item-by-item basis in order to keep them on the projected track to meet overall spending targets set by the cabinet. Highly profitable categories see larger reductions in the fee schedule.

Another cost-containment strategy is to limit services, such as MRIs or certain expensive drugs, deemed to be inflating costs. Peer review committees in each prefecture also monitor claims and may deny payment for services deemed inappropriate. There have also been constraints on the number of hospital beds and physicians; the number of hospital beds is regulated by prefectures in accordance with national guidelines. Hospital mergers and acquisitions have been facilitated by the government. Admission capacities of medical schools, which are also regulated by the government, were cut back in the 1980s and had been unchanged until 2007. The national capacity increased from 7,625 in 2007 to 8,923 in 2011 (Ministry of Education, Culture, Sports, Science and Technology and Ministry of Health, Labour and Welfare 2012).

The government's Cost-Containment Plan for Health Care focuses on health behavior change and on shortening hospital stays through care coordination and home care development. Each prefecture is required to make its cost-control

plan for appropriate health care. Substitution of generics has been promoted by the government with financial incentives in the fee schedule and with measures to improve the reliability of generic drugs.

What major innovations and reforms have been introduced?

An emerging trend has been to promote evidence-based policymaking. For example, the current process through which the Central Social Insurance Medical Council revises the national fee schedule has been criticized for a lack of transparency and for vulnerability to potential abuses and conflicts of interest. The DPC hospital payment system may offer one opportunity to create a more robust and transparent policymaking infrastructure: introduction of economic evaluation into health technology assessment is increasingly discussed, although it is highly controversial. Policymakers have also stressed the importance of prevention and wellness in reducing health care costs. Current priorities include reducing smoking and reducing the incidence of cardiovascular diseases, diabetes mellitus, and hyperlipidemia. Since 2008, statutory health insurers have been responsible for delivering annual checkups to beneficiaries between the ages of 40 and 74. Policy tools for improving quality and efficiency, such as comparable quality indicators, are being developed.

The devastating earthquake, tsunami, and nuclear emergency that occurred in March 2011 created a health crisis while also destroying a significant part of the health care infrastructure, particularly in the Tohoku region. Restoring needed health services to the affected areas has been a national priority, and rebuilding is a primary focus of the current government.

The author would like to acknowledge David Squires as a contributing author to earlier versions of this profile.

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The Dutch Health Care System, 2012

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What is the role of government?

The national government monitors access, quality, and costs, and provides most preventive care. The 2006 reforms introduced a prominent role for health insurers. Under the Health Insurance Act (*Zorgverzekeringswet*, or ZVW), statutory coverage is provided by private insurers and regulated under law. Health insurers are given the task of increasing the efficiency of health care through prudent purchasing of health services on behalf of their enrollees.

Who is covered?

Since 2006, all residents (and nonresidents who pay Dutch income tax) are mandated to purchase health insurance coverage. Insurers are required to accept all applicants, and enrollees have the right to change insurer each year. Those with conscientious objections to insurance and active members of the armed forces are exempt from the mandate. In 2010, roughly 135,000 persons (1% of the Dutch population) were uninsured and 283,000 (2% of the population) defaulted or failed to pay their premium for at least six months and were subsequently uninsured. The number of defaulters has increased slightly over the years; in 2009, additional policy measures were taken to enforce insurance premium payment. Asylum seekers are covered by the government, and several mechanisms, including a government fund implemented in 2008, are in place to reimburse the health care costs of illegal immigrants unable to pay for care; annual expenditures were €14.4 million (US\$18.4 million) in 2010. Most people also purchase complementary private health insurance (PHI) for services not covered by the statutory benefits package, such as adult dental care; PHI providers are allowed to screen their applicants based on risk factors.

What is covered?

Services: Health insurers are legally required to provide a standard benefits package covering the following: medical care including care provided by general practitioners (GPs), hospitals, specialists, and midwives; dental care through age 18 (coverage after age 18 is confined to specialist dental care and dentures); medical aids and devices; prescription drugs; maternity care; ambulance and patient transport services; paramedical care (limited physical/remedial therapy, speech therapy, occupational therapy, and dietary advice); ambulatory mental health care (five sessions with a primary care psychologist); and outpatient and inpatient mental care up to a year. Insurers may decide how and by whom this care is delivered, giving the insured a choice of policies based on quality and costs. A limited number of effective health improvement programs (e.g., smoking cessation) are also covered.

The government defines the statutory benefits package based on the advice of the Health Care Insurance Board (CVZ). Some treatments are only partially covered or are excluded (e.g.):

- Ambulatory counseling by a psychologist is limited to five sessions in a year.
- For physiotherapy, since January 2012, the first 20 sessions in a year are no longer covered, except for people with specific chronic conditions.
- Some elective procedures are excluded, e.g., cosmetic plastic surgery without a medical indication.
- For in vitro fertilization, only the first three attempts are included.
- Sleep medication and antacids were excluded in 2011 and 2012, respectively.

Long-term disability protection is organized separately from health care insurance. Everyone who is residing legally in the Netherlands, as well as nonresidents who are liable for Dutch payroll tax, is compulsorily insured for long-term care under the Exceptional Medical Expenses Act (AWBZ), a statutory health insurance scheme for those whose chronic conditions require continuous care and have considerable financial consequences (Schäfer et al., 2010). Patients can choose to receive a personal care budget and purchase care themselves. Between 1998 and July 2009, the number of personal budget recipients for AWBZ care rose from 10,000 to almost 160,000.

Cost-sharing: In addition to income-based contributions and community-rated premiums (see below), every insured person over age 18 must pay a deductible of €220 (US\$282) (as of 2012) for any health care costs in a given year (with some services, such as GP visits, excluded from this general rule). In 2013, the deductible will be increased to €350 (US\$448).

Safety net: GP care and children's health care are exempt from cost-sharing. The government also pays for children up to the age of 18 to be covered and provides subsidies for community-rated premiums (the subsidies are known as "health care allowances") for low-income families if the average community-rated premium exceeds 5 percent of their household income—approximately 5 million people.

How is the health system financed?

Publicly funded health care: The statutory health insurance system under the ZVW is financed through a nationally defined, income-related contribution and through community-rated premiums set by each insurer (everyone with the same insurer pays the same premium, regardless of age or health status). The income-related contribution is set at 6.9 percent of up to €32,369 (US\$41,423) of annual taxable income (as of 2010). Employers must reimburse their employees for this contribution, and employees must pay tax on this reimbursement. For those who do not have an employer and do not receive unemployment benefits, the income-related contribution is 4.8 percent. The contributions of self-employed people are individually assessed by the Tax Department. Contributions are collected centrally and distributed among insurers based on a sophisticated risk-adjusted capitation formula that considers age, gender, labor force status, region, and health risk (based on past drug and hospital utilization). In 2011, the average annual community-rated premium for adults was €1,256 (US\$1,607). In 2011, total spending on health care and social care was €90 billion (US\$115 billion), a 4 percent increase over 2010. The insurance market is dominated by the five largest insurer conglomerates, which account for more than 80 percent of all enrollees.

Privately funded health care: In addition to purchasing statutory health insurance, most of the population purchases a mixture of complementary and supplementary PHI from the same health insurers who provide statutory coverage. The premiums and products of these types of PHI coverage are not regulated. Complementary and supplementary PHI accounts for roughly 3 percent to 5 percent of total annual health spending. People with these types of PHI do not receive faster access to any type of care, nor do they have increased choice of specialist or hospital.

How are health care services organized and financed?

Primary care: The GP is the central figure in primary care; other primary care providers include dentists and midwives. The gatekeeping principle, one of the main features of the Dutch system, stipulates that hospital care and specialist care (except emergency care) are accessible only upon referral from a GP; only 4 percent of appointments with a GP result in a referral to secondary care. All citizens are registered with a GP of their choice, usually in their own neighborhood. On average, patients contact their GP five times per year; a full-time working GP has a practice list of approximately 2,300 patients.

Patients can switch GPs without formal restriction. In 2011, there were 8,884 practicing GPs: 51 percent worked in group practices of three to seven, 29 percent worked in two-person practices, and 20 percent worked solo. Most GPs are independent entrepreneurs or work in a partnership; only a small number are employed in a practice that is owned by another GP.

Since the 2006 reform, GP remuneration combines elements of the old payment systems for SHI (capitation fee per registered patient) and PHI (fee-for-service). As a result, the system consists of several components:

- Capitation fee per registered patient;
- Consultation fee for GPs, including phone consultation;
- Consultation fee for practice nurses (if practice includes any), including phone consultation;
- Contribution (fee-for-service) for activities that either increase efficiency (e.g., task delegation) or substitute GP care for secondary care; and
- Compensation (mostly hourly rates) for providing after-hours care.

In addition, there are bundled payments for a few chronic diseases (diabetes and chronic obstructive pulmonary disease), and efforts are under way to implement them for heart failure and depression (described below). Many GPs employ nurses on salary and the reimbursement for the nurse is received by the GP, so any productivity gains that result from substituting a nurse for a GP's work accrue to the GP. Additional budgets can be negotiated with the insurer for extra services, practice nurses, additional staff, complex location, etc. There are ongoing experiments with pay-per-performance to improve quality in primary and hospital care. The Dutch Health Care Authority (NZa) determines provider fees.

Outpatient specialist care: Almost all specialists are hospital-based and either in group practice (65%–70%) or on salary (most but not all in university clinics). There is a nascent trend for specialists to work outside hospitals—for example, in the growing numbers of ambulatory surgery centers—but this shift is rather marginal, and most ambulatory surgery centers are tied to hospitals. These specialists are paid fee-for-service.

After-hours care: After-hours primary care is organized at the municipal level in GP posts—centralized services typically run by a nearby hospital that provide GP care between 5:00 p.m. and 8:00 a.m. GPs decide whether or not patients need to be referred to the hospital. The GP post sends the information regarding a patient's visit to his or her GP. Emergency care is provided by GPs, emergency departments, and trauma centers. Depending on the urgency of the situation, patients or their representatives can contact their GP or a GP post (for after-hours care), call an ambulance, or go directly to the emergency department at the nearest hospital (Schäfer et al., 2010). All hospitals have an emergency department, and also a GP post.

Hospitals: In 2010, the Netherlands had 141 hospital sites and 52 outpatient specialty clinics divided among 93 organizations, which included eight university hospitals. Practically all are private, nonprofit organizations. There were also more than 150 independent private and nonprofit treatment centers whose services were limited to same-day admissions for nonacute, elective care (e.g., eye clinics, orthopedic surgery centers).

Hospital budgets were previously developed using a formula that paid a fixed amount per bed, patient volume, number of licensed specialists, and other factors; additional funds were provided for capital investment. Since 2006, budgets have been determined through negotiations over price and volume between insurers and hospitals; capital has been

funded through a prospective payment mechanism. Currently, payment of approximately 70 percent of hospital care is freely negotiable and takes place through the case-based Diagnosis Treatment Combinations (DTC) system: each hospital negotiates with each insurer for a DTC rate. These DTCs cover both outpatient and inpatient hospital costs as well as specialist costs, thereby strengthening the integration of specialist care in the hospital organization. Hospital specialists practice directly or indirectly under contracts negotiated with private health insurers. Two-thirds of hospital-based specialists are self-employed or work in partnership with other physicians; the remaining third are salaried. In 2012, the number of DTCs was reduced from 30,000 to 3,600.

Mental health care: Mental health care is provided in both primary and secondary care. Primary health care professionals in mental health care include GPs, psychologists, and psychotherapists. When more specialized care is required, the GP refers the patient to a psychologist, an independent psychotherapist, or a specialized mental health care institution. In 2006, around 772,000 people were treated in specialized mental health care organizations. Around 75 percent of them received ambulatory treatment; 4 percent received part-time inpatient care (i.e., one or more daily periods of care per week in an institution); 14 percent were hospitalized in a closed institution; and approximately 6 percent lived in a sheltered housing facility. Prior to 2008, the majority of mental health care was financed under the AWBZ; in 2008 the financing structure was fundamentally reformed. The first 365 days of mental health treatment and up to five primary care psychologist sessions became coverable under basic health insurance, financed under the ZVW.

Long-term care: Long-term care, financed by the AWBZ, makes up 38 percent of the total health care budget and is provided both in institutions (residential care) and in communities (home care). Health insurers are formally responsible for implementing the AWBZ, but this task is delegated to regional care offices (Zorgkantoren). The Center for Needs Assessment (CIZ) has been commissioned by the government to carry out assessment for eligibility under the AWBZ. Patients, their relatives, or their health care providers can file a request with the CIZ. The CIZ then sends its decision to a care office (Zorgkantoor).

Home care is provided by home care organizations, residential homes, and nursing homes. In 2010, there were 500 of these providers. Currently, the Netherlands has 324 nursing homes, 960 residential homes, and 210 combined institutions.

Most palliative care is integrated into the regular health system and is delivered by GPs, home care providers, nursing homes, specialists, and voluntary workers. Health care providers, palliative units, and hospices currently participate in regional networks in order to promote integration and coordination of care. The number of hospices and palliative units is growing throughout the country, but under 5 percent of the population currently dies in a hospice.

What are the key entities for health system governance?

A number of arm's-length agencies are responsible for setting operational priorities. At the national level, the Health Council advises the government on evidence-based medicine, health care, public health, and environmental protection; the Health Care Insurance Board (CVZ) advises the government on the components of the basic health insurance package; and the Medicines Evaluation Board (CBG) oversees the efficacy, safety, and quality of medicinal products. Health technology assessments (HTAs) are carried out by the Health Council and the CVZ. The Dutch Health Care Authority (NZa) has primary responsibility for ensuring that the health insurance market, the health care purchasing market, and the health care delivery markets function appropriately, while the Dutch Competition Authority (NMa) enforces fair competition among both insurers and providers, subject to the Dutch Competition Act.

What is being done to ensure quality of care?

The Dutch Health Care Performance Report 2010 provided indisputable evidence that the quality and price of Dutch health services vary substantially among providers, and that more needs to be done to address the variation in quality (Westert et al., 2010).

At the health system level, quality of care is ensured through legislation governing professional performance, quality in health care institutions, patient rights, and health technologies. The Dutch Health Care Inspectorate (IGZ) is responsible for monitoring quality and safety. Most quality assurance is carried out by health care providers, sometimes in close cooperation with patient and consumer organizations and insurers. Mechanisms to ensure quality of care provided by individual professionals include reregistration/revalidation of specialists based on compulsory continuous medical education; regular on-site peer assessments organized by professional bodies; and profession-owned clinical guidelines, indicators, and peer review. The main methods used to ensure quality in institutions include accreditation and certification; compulsory and voluntary performance assessment based on indicators; and national quality improvement programs based on the breakthrough method *sneller beter* (“faster, better”). Patient experiences are also systematically assessed and, since 2007, a national center has been working with validated measurement instruments comparable to the approach of the Consumer Assessment of Healthcare Providers and Systems (CAHPS) in the United States. The center also generates publicly available information for consumer choice on such topics as waiting lists, patient satisfaction, and a few quality indicators.

The Ministry of Health recently issued a directive to the Dutch parliament stating that, from 2013, a central body (the National Institute for Health Care Quality) needs to be established to further accelerate the process of quality improvement and to encourage evidence-based practice.

What is being done to improve care coordination?

As mentioned above, bundled payments for patients with select chronic conditions (e.g., diabetes) are being offered. In 2007, the Dutch minister of health approved the introduction of a bundled-payment approach for integrated chronic care, initially on an experimental basis with a focus on diabetes. In 2010, the bundled-payment concept was approved for nationwide implementation for diabetes, chronic obstructive pulmonary disease (COPD), and vascular risk management. Under this system, insurers pay a single fee to a principal contracting entity—the “care group”—to cover a full range of chronic disease (diabetes, COPD, or vascular disease) care services for a fixed period. A care group is a newly created actor in the health care system, consisting of a legal entity formed by multiple health care providers, who are often exclusively general practitioners (GPs). The care group assumes both clinical and financial responsibility for all assigned patients in the diabetes care program. For the various components of diabetes care, the care group either delivers services itself or subcontracts with other care providers. The bundled-payment approach supersedes traditional health care purchasing for the condition and divides the market into two segments—one in which health insurance companies contract care from care groups and one in which care groups contract services from individual providers, be they GPs, specialists, dietitians, or laboratories. The price for the bundle of services is freely negotiated by insurers and care groups, and the fees for the subcontracted care providers are similarly freely negotiated by the care group and providers (Struijs, 2011).

What is being done to reduce disparities?

Smoking is still a leading cause of death, followed by obesity. For many determinants, lower socioeconomic groups do worse on all fronts. However, the current government does not have a specific policy to overcome health disparities, as the cornerstone of present policy is an emphasis on people’s personal responsibility for healthy lifestyles.

What is the status of electronic health records?

Dutch authorities are working to establish a central health information technology network to enable information exchange across sites of care. All Dutch patients have a unique identification number (BSN). Virtually all GPs have a degree of electronic information capacity—for example, they use an electronic health record (EHR), and can order prescriptions and receive lab results electronically. Hospitals do not show the same degree of uptake, with only 10 percent to 20 percent of hospital specialists using EHRs.

EHRs for the most part are not nationally standardized or interoperable between domains of care, reflecting their historic development as regional initiatives. The National IT Institute for Healthcare, operating under the Ministry of Health, is tasked with bringing together all initiatives to coordinate their efforts and promote the development and adoption of national standards.

How are costs controlled?

One of the most significant themes in the public debate surrounding the most recent elections (September 2012) was on how to bend the cost curve. Recent figures from Statistics Netherlands indicate that health expenditures have risen substantially—the most recent annual expenditure growth was approximately 3.6 percent—not least as a result of increases in doctors' incomes and volume of services delivered.

When the 2006 reforms were first introduced, the government aimed to take a back seat and allow market forces to operate. The main approach to controlling costs in the Dutch health system rests on regulating competition between insurers and improving efficiency of care with the use of performance indicators. In addition, provider payment reforms, including a general shift from a budget-oriented reimbursement system to a performance- and outcome-driven approach, have been implemented; costs are increasingly expected to be controlled by the new DTC system, in which hospitals must compete for the prices of specific services; and various local and national programs aim to improve health care logistics.

The government has recently set a ceiling for the annual growth of hospital care volume at 2.5 percent. These and costs rising elsewhere in the system (AWBZ), combined with the economic crisis, may force the government to intervene further.

What major innovations and reforms have been introduced?

The biggest reform of the past decade involved the 2006 introduction of a universal compulsory insurance scheme executed by private insurers. Previously, people with earnings above approximately €30,000 (US\$38,392) per year and their dependents (around 35% of the population) had been excluded from statutory coverage provided by public sickness funds and could purchase coverage from private health insurers; the government had regulated this form of substitutive private health insurance to ensure that older persons and people in poor health had adequate access to health care and that the publicly financed health insurance scheme was properly compensated for covering a disproportionate number of high-risk individuals. However, growing dissatisfaction with the dual system of public and private coverage eventually led to the 2006 reform (substitutive private health insurance was also abolished in 2006), creating a level playing field. The underlying logic is that consumers who have the right to exercise choice induce competition among insurers, and insurers will therefore push health care providers to increase the quality and efficiency of their services. However, further research will be required to determine whether this policy has led to optimal performance for all actors involved.

Additionally, there is an ongoing review of the coverage of both the statutory health insurance scheme and the AWBZ scheme for long-term care. Progress has been made on producing indicator information, although there is a continuing focus on improving transparency.

The author would like to acknowledge Niek Klazinga as a contributing author to earlier versions of this profile.

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The New Zealand Health Care System, 2012

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What is the role of government?

The government plays a central role in setting the health policy agenda and service requirements for the health system, and in setting the annual publicly funded health budget. Responsibility for planning, purchasing, and providing health and disability support services lies with 20 geographically defined District Health Boards (DHBs). DHBs comprise seven members elected by the people in their area and up to four members appointed by the minister of health. They pursue government objectives, targets, and service requirements, operating government-owned hospitals, health centers, and community services as well as purchasing services from nongovernment and private providers.

Who is covered?

All permanent residents have access to a broad range of health and disability services that are largely publicly financed through general taxes. As of November 2012, 4.45 million New Zealand residents were eligible for publicly funded health services. Nonresidents, such as tourists and illegal immigrants, are charged the full cost for services provided by public hospitals or primary medical care providers, unless their health needs are the result of an accident, in which case they are covered by New Zealand's no-fault accident compensation scheme.

Complementary and supplementary private voluntary health insurance is mostly used to cover cost-sharing requirements, elective surgery in private hospitals, and private outpatient specialist consultations. Private payment secures faster access to treatment for nonurgent care. In December 2011, 1.358 million New Zealanders had some private health insurance (approximately 31% of the New Zealand population).

What is covered?

Services: The publicly funded system covers preventive care, inpatient and outpatient hospital care, primary care services (excluding some service types such as optometry, adult dental services, and orthodontics), inpatient and outpatient prescription drugs, mental health care, dental care for schoolchildren, long-term care, and disability support services. The government sets an annual global budget for most publicly funded health services and sets national service requirements to be implemented by 20 DHBs. Rationing and prioritization occur largely at the margins and vary by DHB.

Cost-sharing: Public hospital services are predominantly free (there are some user charges e.g., aids and appliances), but people are charged copayments for GP services and many nursing services provided in general practice settings. The median fee for a GP consultation for an adult is NZ\$30–\$35 (US\$24–\$28), but fees vary significantly. More than 90 percent of children under 6 years of age can access free primary care services at any time, and one-third of New Zealanders access services where the maximum adult fee is NZ\$17 (US\$13). Copayments for after-hours consultations are generally higher.

Copayments are also required for community-prescribed drugs (NZ\$3.00 [US\$2.50] per item, set to rise to NZ\$5.00 [US\$4.06] per script on January 1, 2013), though again there are no charges for children under 6 years of age. Most New Zealanders now pay \$3 per prescription item up to a maximum of 20 items per family per year, after which items are free.

GP copayments fell during a period of significant increases in government funding for primary care in 2002–2008, but have been increasing since then. Subsidies for long-term care for older people are means-tested, with eligibility only for those with limited financial means or assets. Residents with assets over a threshold pay the cost of their care up to a maximum contribution. Residents with assets under the allowable threshold contribute all their income. Household management, which accounts for one-third of home support funding, is means-tested.

Safety net: Primary care is mostly free for children age 6 and under, and is subsidized for the 98 percent of the population enrolled in networks of self-employed providers (mainly GPs) known as Primary Health Organizations (PHOs). PHOs include GPs, practice nurses, and allied practitioners. Additional PHO funding and services are available for people with chronic conditions, and to improve access for population groups with high health needs. In addition, 30 percent of all primary care practices operate in a “very low cost access” environment where a capitation premium is paid and in return patient fees are capped. These practices are usually found in poorer communities with high health needs. A “high use health card” is available on application to patients who have had more than 12 GP visits in a year. Subsequent capitation payments to the GP are then set at a higher level to reflect this high utilization pattern; though patients continue to pay their usual GP copayments. Public hospitals, including emergency departments, are free, and may sometimes be used by patients who should have been treated in primary care settings.

How is the health system financed?

Publicly financed health care: Public health spending accounted for 83.2 percent of total health spending in 2010 (OECD 2012). Public health spending in 2010 was distributed in the following way:

- 87.1% to the Ministry of Health, which distributed it to DHBs using a weighted, population-based funding formula. The Ministry directly funded about 20 percent of public services in 2010.
- 10.1% to the Accident Compensation Corporation who provide funding for accident and injury care. The ACC is funded from levies on people’s earnings, businesses’ payrolls, petrol and fees from vehicle licensing, as well as government funding.
- 2.8% to other central government, regional, and local government.

Privately financed health care: Out-of-pocket payments, including both cost-sharing and costs paid directly by private households, accounted for approximately 10.5 percent of total health expenditure in 2010 (OECD 2012). Private health insurance accounts for about 5 percent of total health expenditure. It is mostly used to cover cost-sharing requirements, elective surgery in private hospitals, and private outpatient specialist consultations, and usually offers faster access to nonurgent treatment. About one-third of the population has some form of private health insurance. Private health insurance is offered by a variety of organizational types, from nonprofits and “Friendly Societies” to companies listed on the stock market. Insurers reimburse providers up to company-specific maximums.

How are health services organized and financed?

Primary care: GPs act as gatekeepers to specialist care and are usually independent, self-employed providers, predominantly paid through a capitated government subsidy paid through PHOs and patient copayments. PHOs also receive additional per-capita funding for health promotion, for coordinating care and providing additional services for people with chronic conditions, and for reducing barriers to care for patients who experience access difficulties.

Over recent years, there has been substantial additional funding to subsidize primary care and improve access to care. GPs work together with practice nurses in general practice teams—these nurses have a significant role in the management of long-term conditions (e.g., diabetes). Patient registration is not mandatory, but GPs and PHOs 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.

Outpatient specialist care: Most specialists are employed by DHBs, but they are able to work privately as well in their own private clinics or treating patients in private hospitals, where income is on a fee-for-service basis. In public hospitals, patients generally have limited choice of specialist. Private specialists are mostly concentrated in larger urban centers.

After-hours care: GPs are expected to provide or arrange for the provision of after-hours care, and they receive government subsidies for doing so. In cities, GPs tend to provide after-hours service on a roster at purpose-built, privately owned clinics in which they are shareholders. Patient charges at these clinics are higher than for services during the day, though over 90 percent of children under 6 years can access free GP services even after hours. Consequently, some patients will visit the hospital emergency department instead or avoid after-hours service altogether. A patient's usual GP routinely receives information on after-hours encounters. In rural areas and small towns, GPs work on call. The public also has access to the 24-hour, seven-day-a-week Healthline, staffed by nurses who provide phone-based advice for general health questions. Plunketline provides a similar service for child and parenting problems.

Hospitals: New Zealand has a mix of public and private hospitals, but public hospitals make up the majority, providing all emergency and intensive care. Public hospitals receive a budget from their owners, DHBs, based on historic utilization patterns, population needs projections, and government goals in areas such as elective surgery. A case-mix funding system is in operation for inpatient services delivered by the DHB provider arm. A proportion of DHBs' electives funding is held by the ministry and paid on delivery of surgery. Certain areas of funding, such as mental health, are ring-fenced, meaning the DHB must spend the money on a specified range of inputs.

Private hospital patients with complications are often admitted to public hospitals, in which case the costs are absorbed by the public sector. Specialists receive salaries in public hospitals while maintaining their own private clinics, or treat patients in private hospitals where income is on a fee-for-service basis. Public hospital medical treatment is largely provided by consultant specialists, specialist registrars, and house surgeons. Health Workforce New Zealand (HWNZ) is currently conducting physician assistant demonstration pilots in five sites. If the demonstration proves successful, HWNZ will explore options to regulate the profession and train New Zealand physician assistants.

Mental health care: DHBs fund mental health care provided in the community and in institutional settings for those with the most severe mental health needs. Patients with mild to moderate mental health needs are treated in primary care. Those with more intensive requirements may see a hospital-based specialist, usually in the public sector. DHBs own and run a range of mental health facilities, from acute inpatient to outpatient community services. Those with long-term care needs are cared for in community settings, usually by nongovernmental agencies that provide various support services on contract to DHBs. New Zealand has only one private psychiatric hospital, and it does not receive government funding.

Long-term care: DHBs fund long-term care for patients based on needs assessments, age requirements, and a means test. DHBs fund these services both for those over age 65 and for those "close in age and interest" (e.g., people with early onset dementia or a severe physical disability requiring long-term care). Those eligible receive comprehensive, fully funded services, including medical care. Residential facilities provide some long-term care and these are mostly private. Many older or disabled people receive in-home care. DHBs also provide hospital- and community-based palliative care. A network of hospices provides end-of-life care. Approximately 70 percent of hospice funding is through DHBs, with the remainder coming through fundraising.

What are the key entities for health system governance?

As the health system is primarily controlled and financed through the public sector, government-funded and -appointed entities dominate governance structures. Some, like the Health and Disability Commissioner (whose function is to champion consumers' rights in the health sector), sit at arm's length from central government. Others are "Crown Entities" with their own boards that are required to meet Government expectations, which are reviewed annually.

- *National Health Board* (NHB): Established by the Government in November 2009, NHB's role is to improve the quality, safety, and sustainability of health care for New Zealanders by actively engaging with clinicians and the wider health sector. NHB also provides advice to the Minister and the Director-General of Health on these matters.

Health Workforce New Zealand was created in 2009 as a subcommittee of the NHB to plan for future health workforce needs.

- *Health IT Board* was established as a subcommittee of the NHB and is charged with ensuring that health sector policy is supported by appropriate health information and IT solutions across the health and disability sector.
- *Health Benefits Limited* (HBL) supports DHBs to deliver shared services. Established in July 2010, HBL works to reduce costs by identifying savings in administrative, support, and procurement services for the health sector, and by facilitating and leading initiatives that reduce duplication and result in savings and efficiencies for DHBs on nonclinical initiatives and back office functions.
- *Pharmaceutical Management Agency of New Zealand* (PHARMAC) assesses the effectiveness of drugs and distributes prescribing guidelines. It also determines the inclusion of drugs on the national formulary. Relative cost-effectiveness is one of nine criteria used in funding decisions. Since 2010, PHARMAC has also focused on the assessment of medical devices in what may be an increasing role in broader comparative-effectiveness research.
- *Health Quality & Safety Commission* was established in 2010 to ensure all New Zealanders receive the best health and disability care within available resources. The Commission is also working toward the New Zealand Triple Aim of improved quality, safety, and experience of care; improved health and equity for all populations; and better value for public health system resources.
- *National Health Committee* advises government on the priorities for new and existing health technologies. All new diagnostic and treatment (nonpharmaceutical) services, and significant expansions of existing services are referred to the NHC for evaluation and advice. The Committee also provides advice on what technologies are obsolete or no longer providing value for money for New Zealanders.

What is being done to ensure quality of care?

The publicly funded but independent Health and Disability Commissioner investigates and reports on patient complaints. The Commissioner reports directly to Parliament and has been important in promoting quality and patient-safety improvements.

DHBs are held formally accountable to the government for delivering efficient, high-quality care in hospitals, as measured by achievement of targets across a range of indicators. DHB performance in terms of waiting times, access to primary care, and mental health outcomes is publicly disclosed. PHOs receive performance payments if GPs collectively reach quality and service delivery targets for vaccinations and cancer, diabetes, and cardiovascular disease screening and follow-up. Data comparing performance of PHOs are also publicly reported. Data on individual doctors' performance are not routinely available.

Certification by the ministry of health is mandatory for hospitals, nursing homes, and assisted-living facilities, which must meet published and defined health and disability standards. Certification audits are often performed in conjunction with accreditation by third parties.

The Health Quality and Safety Commission replaced the government's Quality Improvement Committee in 2010. The new organization is intended to increase the focus on quality while better coordinating the varied approaches to quality improvement across DHBs. It will continue to oversee existing public hospital programs, which are focused on such issues as optimizing the patient journey, ensuring safer medication management, reducing rates of health care–acquired infection, and standardizing national incident reporting. Recent initiatives include the launch of initial components of the Atlas of Healthcare Variation, commissioning the development of a series of standard quality and safety indicators for DHBs based on routinely collected data, development of a program for consumer involvement in service design, and advice for DHBs on how to prepare annual Quality Accounts, which will be required of DHBs in 2012–2013. Much like a “financial account,” the Quality Accounts are intended to provide an account of how the DHB has approached quality improvement and should include key initiatives and their impact.

The National Health Board is also working on quality improvement in DHBs, with a particular focus on management systems, clinical services, and patient pathways. “Clinical governance” has been implemented in most DHBs, meaning that management and health professionals are assuming joint accountability for quality, patient safety, and financial performance.

How is care coordinated?

Since 2008, some PHOs have decided to merge to improve their performance and reduce administrative duplication. The government has also started to develop larger Integrated Family Health Centers (IFHC), in line with its “Better, Sooner, More Convenient” policy, which aims to improve access to integrated care provided by DHBs and PHOs by establishing more convenient locations for patients (outside of hospital settings) and also focuses on chronic disease management. These IFHCs will provide comprehensive primary care and care coordination, after-hours services, and some minor elective procedures for an enrolled population. The new facilities will see services and providers co-located, or coordination of services improved, with funding from both primary care budgets and DHBs.

Patients enrolled in PHOs have a medical home. However, PHOs vary widely in their size, performance, and activities. The best of them provide a model that, if nationally emulated, would result in all enrollees having a fully functional, multidisciplinary medical home, although institutional barriers to integrating primary and hospital care remain.

Government is accelerating the drive for clinical integration to create a more patient-centered health system. It is delivering change in four priority areas of: urgent and unplanned care, long-term conditions, wraparound services for older people, and maternity and child services; and ensuring that all DHBs' Annual Plans include integration proposals to drive change at a local level.

What is being done to reduce health disparities?

Disparities in health are a central concern in New Zealand, as Māori and people of Pacific Island origin have lower life expectancies than for the total population of New Zealanders (Māori, seven years shorter life expectancy in 2005–07; Pacific, four years shorter life expectancy).¹ Māori and Pacific people are also known to experience greater difficulty in accessing health services. Since the late 1990s, governments have made reducing disparities a policy priority. The

¹ Based on the most recently available census information from 2006. The 2011 census was cancelled following the February 2011 earthquake in Christchurch and the next census—from which life expectancy data are finalized—is due in March 2013.

formula by which DHBs are funded contains specific categories and weights to recognize the additional resources required to provide services for Māori and other underserved populations.

Through much of the 2000s, a multisector policy approach saw investments in housing and education as well as health, where DHBs and PHOs were required to develop strategies for reducing disparities. Many PHOs were created especially to serve Māori or Pacific populations.

The post-2008 government has been more focused on specific initiatives such as Whanau Ora, a policy designed to integrate the various providers of social services, including health, to improve those services for disadvantaged Māori, who often fall between the boundaries of different agencies. The aim here has been to develop multiagency approaches to service provision and joint responsibility for outcomes.

What is the status of electronic health records?

New Zealand has one of the world's highest rates of information technology (IT) use among primary care physicians. The government has the goal of all New Zealanders having electronic access to a core set of personal health information by 2014. Since the National Health IT Plan was launched in September 2010 there has been good progress toward this goal. Clinicians and vendors are working together on a number of projects, there is a larger focus on supporting and enabling integrated care, and a shift towards regional investment decisions and the development of regional solutions.

Increasingly, primary care IT systems provide services such as the ability for the structured electronic transfer of patient health records, electronic referrals, decision support tools with patient safety features, and patient access to health information in a secure environment.

More generally, for the future the focus is on facilitating secure viewing of patient health information between community, hospital and specialist settings, including common clinical information; giving all consumers an online view of their information; and supporting the development of shared care plans (where a number of health professionals are involved in a person's care)

The National Health IT Board works with a number of sector groups and receives advice from others, including clinicians, consumers and vendors. The Health Information Standards Organisation (HISO) supports and promotes the development and use of health information standards to ensure interoperability between systems. Every person who uses health and disability support services in New Zealand has a national health index number as a unique identifier.

How are costs controlled?

The financial sustainability of the publicly funded health service is a top governmental priority. To support this goal the government has implemented a range of measures to manage key pressures. These include four-year planning to align expenditure with priorities over a longer period, and improving regional collaboration to drive efficiencies. All new proposals need to be included in a Four-Year Plan and their fit with the strategic direction of the health sector over the next four years needs to be demonstrated.

Cost control in DHBs has been closely monitored by the Ministry of Health, with a significant reduction in deficits over the last four years, from NZ\$104.8 million (US\$85 million) in 2008–09 to \$22.1 million (US\$18.0 million) in 2011–12.

In its shared services role, Health Benefits Limited has been charged with finding cost-savings for DHBs, with a target of NZ\$700 million (US\$570 million) over five years across procurement, financial management and information systems.

The National Health Committee has been established to prioritize health technologies and provide advice on what technologies or no longer value for money. The National Health Committee will increasingly use comparative-effectiveness research methods to evaluate existing and new interventions and technologies.

PHARMAC uses a range of tactics, like reference pricing and competitive tendering, to set prices for publicly subsidized drugs dispensed through community pharmacies and hospitals. Such strategies have helped drive down pharmaceutical costs and, as a result, New Zealand's drug expenditure per capita was the third lowest in the OECD in 2010 (OECD 2012). If patients prefer unsubsidized medicines (and there are no clinical indications these would be more effective), they pay the full cost.

What major innovations and reforms have been introduced?

Following the advice of the 2009 Ministerial Review Group report, the government has announced a series of initiatives, most of which have been outlined above. Those initiatives are designed to improve service efficiency, access, and quality while shifting expenditure away from administration and toward patient services. The National Health Board aims to enhance administrative and clinical service efficiency, coordination, and national procurement; the Health Quality and Safety Commission targets improved quality of care; and all policy activities are emphasizing the notion of comparative effectiveness. The quarterly publication of DHB performance against six government targets has inspired much of the increased focus on such innovations. Projects to reduce emergency department waiting times have demonstrated the value of “lean” methods designed to improve patient flow, which demand hospital and systemwide application. PHOs have been involved in many provider-driven primary care delivery programs focused on population health and service integration. In disability support care, there have been promising experiments with personal budgets, allowing recipients to purchase home help.

To retain New Zealand-trained health professionals and direct them to hard-to-staff communities and specialties, a voluntary bonding scheme was introduced in February 2009 for medical, midwifery, and nursing graduates. The government has also increased the number of places available in medical and nursing school, with more doctors and nurses expected to join the workforce in coming years. DHBs are increasingly working collaboratively to ensure the sustainability of and access to specialist services in smaller towns and regions.

The author would like to acknowledge the New Zealand Ministry of Health for their comments and providing updated information for the profile.

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The Norwegian Health Care System, 2012

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What is the role of government?

Much of the health system is government-controlled. Norway's 429 municipalities, with additional funding from the Norwegian Health Economics Administration, are responsible for funding and delivering primary care services, including health promotion, preventive medicine, rehabilitative services, emergency care, and long-term nursing care. Since the 2002 Norwegian Hospital Reform, four regional health authorities (RHAs), which are corporations fully owned by the state, have been responsible for supervising inpatient and specialist somatic and psychiatric care. The Ministry of Health issues a yearly document instructing the RHAs as to what to prioritize, achieve, and report to the Ministry regarding specialized health care, and also regulates the RHAs' budgets. The municipalities' obligations for primary care are mainly laid out through legislation, but also through some earmarked funding and a yearly issued document by the Directorate for Health concerning prioritization and quality.

Who is covered?

Coverage is universal. The nationally managed and financed health system is built on the principle that all legal residents have equal access regardless of socioeconomic status, country of origin, and area of residence. European Union residents have, through common agreements within the EU, the same access to health services as legal residents. For undocumented immigrants, the access is limited to emergency acute care. Private health insurance is growing, but covers only about 5 percent of health care services—mainly elective services.

What is covered?

Services: Parliament determines what is covered and establishes the criteria for cost-sharing and safety nets. There is no defined benefits package. In practice, statutory national health insurance covers primary health care, hospital care, ambulatory care, and prescription drugs on the formulary (the “blue list”). It also partly covers dental care for children and some other groups, but does not cover nonmedical eye care. All patients with chronic diseases, including patients with mental health diagnoses, have a right to an individual plan for their care and treatment. A physician must consider certain treatments, such as plastic surgery, to be medically essential to qualify for public coverage. All inpatient care in a public hospital, including use of pharmaceuticals, is free of charge for the patients. Complementary medicine is not covered.

Primary care (services by general practitioners, physiotherapists, and chiropractors), preventive care (checkups, screening, and immunization of infants and schoolchildren), and nursing care are organized at the local level by the municipalities. The municipality decides on public health initiatives or campaigns to promote a healthy lifestyle and reduce social health disparities. Preventive services for mental health are directed mostly toward children and older youth through the school system. Long-term care is also provided for those who need it, either in their own homes or in institutions or nursing homes; cost-sharing is means-tested. The health budget for these services is decided locally, with a number of services being mandatory for the municipalities, particularly those related to pediatric care.

Cost-sharing: GP and specialist visits, including outpatient hospital care and same-day surgery, require copayments (NOK136 and NOK307 [US\$19 and \$307] per visit in 2012, respectively), as do physiotherapy visits (in varying amounts), covered prescription drugs (up to NOK520 [US\$71] per prescription), and radiology and laboratory tests

(NOK218 and NOK47 [US\$30 and \$6]). Providers are not allowed to extra-bill—that is, charge a higher price than the national insurance will pay, with the patient responsible for the difference—as long as they are in the national system. Prescription drug copayments are linked to group reference prices set at the average of the three lowest market prices for the drug in a group comparison of prices in Scandinavian and Western European countries. The drug pricing scheme also attempts to encourage the use of generic drugs by setting the generic price as a gradually decreasing percentage of the branded price. Home-based and long-term institutional care for older or disabled people requires high cost-sharing, but copayment levels are income-tested.

Safety net: There is an annual maximum limit for many cost-sharing requirements, above which out-of-pocket costs are waived; for 2012, the limit is set at NOK1,980 (US\$270) (with a second limit set at NOK 2,560 [US\$349] for some services, e.g., physiotherapy and some dental services). However, long-term care and prescription drugs not on the blue list do not qualify toward this ceiling (i.e., there are no limits to those out-of-pocket costs). Certain groups are exempt from cost-sharing: e.g., children under the age of 16 receive free physician treatment and access to essential drugs on the blue list, children under the age of 18 receive free psychological and dental care, pregnant women receive free medical examinations during and after pregnancy, and residents eligible for minimum retirement pension or disability pensions receive free essential drugs and nursing care. Individuals suffering from specified communicable diseases, including HIV/AIDS, and patients with work-related injuries receive free medical treatment and medication.

How is the health system financed?

In 2010, Norway had the second-highest per-capita spending on health care among OECD countries, yet as a percentage of GDP spent close to the OECD median (9.4%).

Publicly financed health care: Public spending on health is financed through general taxation, and accounted for 85.5 percent of total health expenditure in 2010. Taxes are collected by the central government, counties, and municipalities. Taxpayers with high expenses as a result of permanent illness receive a tax deduction. The government sets an annual health budget in December, but parliament has, on some occasions, voted for additional funds later in the year, particularly for hospitals. After the budget is passed, the General Purpose Grant Scheme redistributes funds among municipalities according to population size, characteristics, and density. Funds for hospital care are allocated to the RHAs through a combination of block grants and activity-based funding (60% and 40% in 2012, respectively).

Privately funded health care: In 2009, out-of-pocket payments accounted for 15 percent of total health care expenditure, mainly reflecting cost-sharing requirements and mainly spent on medicines and GP services (37 percent of the total costs of GP services), but also on outpatient specialist services and transportation. Voluntary health insurance, operated by for-profit companies, does not play a significant role, covering only about 5 percent of residents and mainly elective services. Of these, 88 percent receive coverage through their employer (employees are taxed for these benefits). Voluntary insurance typically plays a supplementary role, offering shorter waiting times for publicly covered elective services such as elective operations and specialist consultations. Those who have voluntary insurance often use it in tandem with publicly covered services, since acute specialized care is almost always publicly delivered.

How are health services organized and financed?

Primary care: Although the number of physicians has increased both in the GP and hospital sector, the proportion of physicians working as GPs has fallen dramatically in the past 10 years, indicating unbalanced growth in specialist services and secondary care. There is now a financial incentive to be a certified GP, and to see more patients per day.

Since 2001, patients have been encouraged to register with a GP, who refers them to other providers when needed. Virtually all residents are now registered with a regular GP, and those not registered pay higher user charges (an

additional NOK110 [US\$19]) for GP consultations. Patients have a legal right to seek a second medical opinion and may change their GP twice a year. However, in most places there are too few GPs with availability on their patient list, so many patients do not actually have a choice of provider. The 2001 reform also established the current model in which municipalities contract with private GPs, who receive a combination of capitation from the municipalities, fee-for-service through the Norwegian Health Economics Administration, and out-of-pocket payments from patients.

The model for GP financing is set nationally, with little variation between municipalities. Most GPs are self-employed and a few are salaried municipal employees. Depending on the size and interest of the practice, GP practices typically comprise two to six physicians, in addition to nurses, lab technicians, and secretaries. Physicians and ambulance services are the main referrers of patients to emergency hospital consultation or admittance to hospitals for specialty care. According to the health personnel registry, there are 2.09 specialists in hospitals or ambulatory care for every practicing primary care physician (with or without specialty in primary care medicine).

Outpatient specialist care: Hospital-based specialists are salaried. Ambulatory specialists are generally self-employed and are paid a combination of annual lump sums based on the type of practice and number of patients on the list, in addition to fee-for-service payments. Some services, such as secondary prevention for cardiovascular diseases and smoking cessation initiatives, are billed at a comparatively larger fee as an incentive for providing such services. In principle, patients have a choice of specialist, although in practice specialist availability varies by geographic location.

After-hours care: After-hours emergency services are the responsibility of the municipalities. For GPs' contract-bound, after-hours emergency services, the municipalities provide offices, equipment, and assistance, and pay the GPs a small fee. In many places, after-hours emergency services are available close to or at a hospital, providing easy access to X-rays and laboratory services and convenient referral to hospital care. Patient cost-sharing and provider fees are slightly higher for after-hours emergency services.

Hospitals: All hospitals are state-owned, but are formally registered as legal entities with an executive board (approved by the ministry of health) and governed as publicly owned corporations. Hospital payment reform in 1997 aimed to create activity-based payment based on the DRG system, and was followed by reforms in 2002 that centralized responsibility, previously held by the 19 counties, for inpatient and specialist care through the establishment of the four RHAs. All hospitals offer ambulatory services, and virtually all ambulatory care consultations take place in hospitals or through private specialists with contractual agreements with the RHAs. Patients are free to choose the hospital they want to go to for elective services, but not for emergency care. RHAs are organized as corporations fully owned by the state and are funded through capitation, activity-based payment (40% through DRGs for somatic services), and out-of-pocket payments (for outpatient and day care). Hospitals are financed in much the same way, and the activity-based part of the budget is set annually; 60 percent is provided as a fixed sum based on how many patients the hospital is expected to see and 40 percent is dependent on the actual volume of patients treated. If a hospital treats more patients than allocated for in the budget, it receives only 40 percent of the DRG. The Coordination Reform, which took effect in 2012, introduced a requirement for municipalities to pay 20 percent of the cost of a hospital stay for their residents.

Mental health: Mental health care is provided by GPs and by other care service providers in the municipalities. For specialized care, GPs refer patients to a private practitioner, psychologist, or psychiatrist, or to a low-threshold outpatient hospital (district psychiatric center), some of which also have inpatient wards. These hospitals are designed to be close to patients' homes so as to facilitate further treatment and follow-up by community health and social care workers. They often have psychiatric outreach teams, which try to treat patients in their homes as often as possible. More advanced specialized services are organized in the inpatient psychiatric wards of mental health and general hospitals. Hospital treatment is provided free of charge, and outpatient services are subject to cost-sharing, with the same annual

limits that are in place for all other cost-sharing. The role of private mental hospital care is very small, and includes services for eating disorders, nursing homes for older psychiatric patients, and some psychiatrist and psychologist outpatient practices, mostly contracted by RHAs. The DRG system does not apply to psychiatric care.

Long-term care: The municipalities are responsible for providing long-term care. Cost-sharing for institutionalized care is income-based, and can constitute up to 85 percent of patients' income. Institutions include nursing homes, long-term psychiatric homes, and homes for severely disabled children and youth. Home nursing is also provided, if needed. A few nursing homes are privately run, but services are provided mainly through contracts with the municipalities; very few patients pay individually for full-time nursing home care. Municipalities may also provide for end-of-life care for terminal patients, within nursing homes, but many nursing homes do not offer this option.

What are the key entities for health system governance?

The Norwegian Knowledge Centre for Health Services, financed by the government, focuses on comparative effectiveness, patient safety, and producing quality indicators and national patient experience surveys. It often includes economic analyses in its systematic reviews and health technology assessments, which are actively used by the Norwegian Council for Quality Improvement and Priority-Setting in Health Care. The Centre also includes the National Unit for Patient Safety, which oversees the Secretariat for the Patient Safety Campaign, initiated in 2011. Since July 2012 it has run the national Reporting and Learning System for adverse events. The Norwegian Medicines Agency determines which medications to reimburse. For new drugs, the agency determines whether a prescription drug should be covered (on the blue list) by evaluating its cost-effectiveness in comparison with existing treatments; a "green" scheme encourages providers to prescribe lifestyle and nutrition programs as a first alternative to more expensive preventive medicine. New drugs expected to have a significant impact on the public budget must receive ministerial and parliamentary approval before being covered.

What is being done to ensure quality of care?

The RHAs, hospitals, and all municipal health long-term care services are responsible for ensuring the quality of their own services. The Norwegian Directorate for Health has provided a national strategy for quality improvement in health and long-term care services. It focuses on safety and efficiency, patient-centered care, coordination, and continuity. Eliminating socioeconomic inequalities in health promotion and disease prevention is also a priority focus areas for the Directorate. In support of those efforts, the Knowledge Centre gathers and disseminates information on the effectiveness and quality of health services, as described earlier. The Norwegian Registration Authority for Health Personnel licenses and authorizes all health care professionals and can grant full and permanent approval to those meeting educational and professional criteria. Audits of all levels of the health system, including the health care workforce, are carried out by the Norwegian Board of Health.

National performance measurements and quality indicators are being developed. They are issued by the Directorate for Health and are publicly available through a new national Web site (www.helsenorge.no). Previously, only process indicators, such as waiting times for services and number of performed procedures, were available from the hospital sector. Since 2010, 30-day survival rates after admission for heart attack, stroke, and hip fracture, as well as overall 30-day survival rates, have been published by the Knowledge Centre, with all data available online. The Knowledge Centre also conducts national patient experience surveys (available at www.sykehusvalg.no).

There are more than 15 national quality registries, and more are being developed through national funding with technical support from the National Centre for Clinical Documentation and Evaluation (SKDE), established in 2008. Most registries are based on data submitted by hospitals with patient consent, and each hospital is given feedback on its per-

formance in relation to average hospital performance across the country. Most of these registries are separate from electronic medical records, but efforts are currently under way toward more automatization and integration by the SKDE.

The Norwegian Institute of Public Health uses the Norwegian Prescription Database to produce annual reports on prescribing trends, giving national health authorities a statistical base for planning and monitoring the prescribing and use of prescription drugs. Personal information held by the registry is anonymized.

What is being done to improve care coordination?

The number of multispecialty practices is growing somewhat, with GPs combining practices with physiotherapy and with outpatient specialized care such as orthopedics, ophthalmology, dentistry, and pediatrics. Most GPs have lab technicians and nurses in their practices; some have specialized nurses for diabetes, lung diseases, etc. Some practices are organized with shared resources, particularly nurses, secretaries, and lab personnel. For hospitals, incentives for care coordination are provided by mandatory agreements between hospitals and the municipalities and through the recently introduced requirement for municipalities to finance 20 percent of DRG costs in hospitals. After both planned and emergency hospitalizations, a discharge letter is sent to the patient's GP. If patients need home-based nursing care after discharge, there are structured routines for alerting the municipality, and in most instances the municipality performs an evaluation before the patient leaves the hospital. New models for integrated care are currently being tested, with joint wards (financed jointly by hospitals and municipalities) for patients with intermediate needs for institutionalized care. In some instances these include wards for palliative end-of-life care (mostly cancer patients); in other areas hospice-type wards are run by nursing homes with nurses and doctors who are more highly qualified than those on the average nursing home ward.

What is being done to address health disparities?

There is ongoing awareness of health disparities with regard to socioeconomic status and also regarding immigrants' health. Studies show that some immigrant groups on average have poorer health, while others have better health than the average native Norwegian. Research regarding pregnancy outcomes has been especially informative, as there are significantly more complications for both newborns and mothers among immigrant women than among native Norwegians. Geography also plays a significant role in differences in health outcomes. Recruitment of health personnel, notably doctors and specialized nurses, is difficult in rural areas, particularly in the north. A national strategy for addressing inequalities in health and health care has recently been issued. The law regarding specialized health care sets out that access to and quality of health care should be equal and not related to age, gender, geography, or social or racial status. The need for adequate information in immigrants' native languages has been emphasized. However, there have been no accurate measures to determine whether access goals have been achieved.

What is the status of electronic health records?

The National Health Network, a centralized company owned by the state, seeks to establish a single information exchange platform, providing a single point of communication for GPs, hospitals, nursing homes, pharmacists, and others. A national strategy for health information technology (HIT) is the responsibility of the Directorate for Health, and implementation is promoted through a departmental steering committee. Every patient is allotted a unique personal identifier.

HIT in primary care is fragmented, and some areas of service lack the resources and equipment for its implementation. Currently, virtually all GPs use electronic patient records, and most receive discharge letters electronically from hospitals, but uptake by municipality home care and nursing homes has been slower owing to more complex and integrated information system requirements. GPs often communicate electronically with laboratories outside their unit, and many

can send prescriptions electronically to the pharmacy. Many GPs can also order X-rays and outpatient specialist services directly through the electronic network.

All hospitals use electronic health records. The lack of structured patient records in both primary and secondary care precludes automatic data extraction; hence there is insufficient data for quality improvement or national activity registration at both the local and national levels. After-hours emergency care is often (but not everywhere) organized within the same patient record network, so that patient histories remain available after hours, and primary care providers are able to access information regarding emergency visits.

How are costs contained?

A balanced national budget gives Norway flexibility in addressing rising health costs. However, more focus is being given to primary care interventions and on prevention. The central government sets an overall health budget in December every year, although parliament typically approves additional funds throughout the year. The municipalities and RHAs are then given the responsibility for maintaining their budgets. The Norwegian Medicines Agency, as described earlier, uses cost-effectiveness evaluations to determine which drugs will be reimbursed, and there are incentives for the use of generics. Further efforts at cost containment are described in the following section.

What major innovations and reforms have been introduced?

There has been a series of major changes in Norwegian health care, with relatively recent reforms in primary care (regular GP reform, 2001), in hospital care (2002), and at the national authority level (2002). The minister of health proposed the Coordination Reform in 2009, focused on prevention, care integration, and the strengthening of health care in the municipalities. There has been rapid growth in health expenditure in the past 10 years, most of it experienced by hospitals, so the Coordination Reform also aims to curb that growth and direct more investment to primary care. The reform took effect in January 2012 with many of the original proposals intact. It has introduced an economic incentive for municipalities to work toward less hospitalization of their patients. The municipalities now must—after a transfer of funding from the hospital sector—pay 20 percent of the costs of hospitalization of their citizens (with some exceptions). In addition, from 2012 to 2015, the municipalities are gradually obliged to establish primary emergency 24-hour care for patients who do not need specialized hospitalization, but nevertheless need some kind of health care attention not possible to provide in the home. It will also strengthen information systems: the Norwegian Health Network will develop further and operate information technology infrastructure for the health care sector.

In recent years there has been greater focus on quality and priority-setting. As described earlier, the current government has also established the Norwegian Council for Quality Improvement and Priority-Setting in Health Care, and a set of priority-setting guidelines has been created to guide referrals to secondary care. There is also work under way to establish a system for regulating the introduction of new and costly treatments.

Recently (July 1, 2012), the national reporting system for adverse events in hospitals was replaced by the nonpunitive, electronic Reporting and Learning System. Whereas the previous reporting system could be the basis for punitive actions regarding health personnel's authorization to practice or as a basis for litigation, the new system is only geared towards preventing future patient harms, and thus focuses only on learning from the incidents.

The author would like to acknowledge David Squires as a contributing author to earlier versions of this profile.

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The Swedish Health Care System, 2012

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What is the role of government?

The three independent levels of government are all involved in the health system. The state, through the Ministry of Health and Social Affairs, is responsible for overall health and health care policy. In addition, there are eight national government agencies directly involved in the areas of health, health care, and public health. Local self-government has a long tradition. At the regional level, 17 county councils and four regional bodies (regions) are responsible for financing and delivering health services to their citizens and for operating regional transportation and cultural activities. At the local level, 290 municipalities are responsible for matters relating to the immediate environment of their citizens, including care of older people and disabled people. The regional and local authorities are represented by the Swedish Association of Local Authorities and Regions (SALAR).

Who is covered?

Coverage is universal. The 1982 Health and Medical Services Act states that the health system must cover all legal residents. Emergency coverage is provided to all patients from EU/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 permanently resident children, and adult asylum seekers have the right to receive care that cannot be deferred (e.g., maternity care). Undocumented adults have the right to receive nonsubsidized immediate care. About 4 percent of the population has supplementary private voluntary health insurance.

What is covered?

Services: There is no defined benefits package. The publicly financed health system covers public health and preventive services; primary care; inpatient and outpatient specialized care; emergency care; inpatient and outpatient prescription drugs; mental health care; rehabilitation services; disability support services; patient transport support services; home care and long-term care, including nursing home care; dental care for children and young people; and, with limited subsidies, adult dental care. Responsibility for the organization and financing of health care is decentralized and rests with the 21 county councils, and responsibility for the care of older people and the disabled rests with the 290 municipalities. Services may therefore vary throughout the country. 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 health care), and cost-effectiveness (when a choice has to be made, there should be a reasonable relationship between health care costs and benefits measured in terms of improved health and quality of life).

Cost-sharing: Cost-sharing per health care visit and per bed-day is determined by individual county councils and municipalities. In 2011, consultation with a physician in primary care cost between SEK100 and SEK200 (US\$15 and \$30). The fee for consulting a specialist at a hospital was SEK230–SEK320 (US\$34–\$48), and patients were charged about SEK80 (US\$12) per day for hospitalization. In almost all county councils, people under 20 years of age are exempt from user charges for health care visits. Services for older or disabled people incur a separate maximum copayment for services provided in the municipal sector (SEK1,712 [US\$256] per month in 2011). Dental and pharmaceutical benefits are determined at the national level. People under 20 have free access to dental care. People 20 or older receive a fixed annual subsidy of between SEK150 and SEK300 (US\$22 and \$45), depending on age, for preventive

dental care. For other dental services, in a 12-month period, patients pay the full cost of services up to SEK3,000 (US\$448), 50 percent for services between SEK3,000 and SEK15,000 (US\$448 and \$2,241), and 85 percent for services above SEK15,000 (US\$2,241). Individuals pay the full cost of prescribed drugs up to SEK1,100 (US\$164), after which the subsidy gradually increases to 100 percent.

Safety net: There is a national ceiling for out-of-pocket payments that ensures that an individual will never pay more than SEK1,100 (US\$164) for health care visits in a 12-month period. The ceiling for prescribed drugs is SEK2,200 (US\$329) for adults. A separate annual maximum of SEK2,200 (US\$329) for pharmaceuticals also applies to children belonging to the same family. Some over-the-counter drugs and prescription drugs are not subject to reimbursement, and patients pay the full price. There is no cap on user charges for dental care.

How is the health system financed?

Publicly financed health care: In 2010, about 81 percent of all expenditures on health were publicly financed in Sweden, with county councils' expenditures amounting to about 70 percent, municipalities' to about 8 percent and the central government's to about 2 percent (OECD 2012; Statistics Sweden 2012). The county councils and the municipalities levy proportional income taxes on the population to cover their services. In 2009, 71 percent of county council revenues were derived from local taxes and 20 percent from subsidies and state grants financed by national income taxes and indirect taxes. General state grants are based on a capitation formula that partly reallocates resources among municipalities and county councils. Targeted state grants must be used to finance specific initiatives, e.g., reducing waiting times, sometimes over a specific period. In 2009, about 91 percent of county councils' total spending was on health care.

Privately financed health care: In 2010, out-of-pocket spending accounted for about 17 percent of total health expenditure. Private voluntary health insurance accounts for about 2 percent of total health spending (OECD 2012). It mainly provides faster access to ambulatory specialists and to elective treatment in hospital. In 2010, 82 percent of all voluntary health insurance was paid for by employers (Swedish Insurance Federation 2011).

How are health services organized and financed?

The health system is highly integrated. An important goal driving structural changes since the 1990s has been to shift from inpatient care toward outpatient or community-based care. Patient choice of provider has been gradually rolled out since the 1990s, and now applies to both primary care and specialist services. Provider payment varies by county council.

Primary care: Primary care has no formal gatekeeping function. GPs, nurses, midwives, physiotherapists, psychologists, and gynecologists provide treatment, advice, and prevention at this level of care. The GP is often the point of first contact for adults, including older people, and for children, although this function is shared with outpatient pediatricians and district nurses. District nurses employed by municipalities participate in home care and regularly make home visits, especially to older people. They have limited prescribing rights.

Since 2010, choice of primary care provider for the population and freedom of establishment for providers accredited by the local county councils is mandatory. There are more than 1,100 primary care practices throughout the country, with about one-third being privately owned. The same requirements for accreditation and payment apply to both public and private providers. Practices are paid a combination of fixed payment (capitation, about 80% of total payment), fee-for-service, and performance-related pay for achieving targets (e.g., patient satisfaction, registration in national registers, and compliance with recommendations from county council drug formulary committees).

Public and private physicians, nurses, and other categories of staff are predominantly salaried employees.

Outpatient and inpatient specialist care: Structural changes in specialized care during the past two decades have focused on a shift away from hospital inpatient care toward hospital outpatient care and day care, and on concentrating highly specialized care. Counties are grouped into six health care regions to facilitate cooperation and to maintain a high level of advanced medical care. There are seven university hospitals and about 70 hospitals at the county council level. Most hospitals are public, but county councils also contract with private hospitals. Global budgets or a mix of global budgets, DRGs, and performance-based methods are commonly used to pay hospitals.

After-hours care: Acute care hospitals (seven university hospitals and two-thirds of county council hospitals) provide full emergency services. All county councils and regions provide information about how and where to seek care through their Web sites and a national phone line, 1177, which is open 24 hours every day, with medical staff available to give advice about treatment. A project known as 1177.se is a collaborative effort between all county councils and regions to provide information about pharmaceuticals, medical conditions, and pathways for seeking care.

Mental health care: People with minor mental health problems are usually attended to in primary care, either by a GP or by a psychologist or therapist, and patients with severe mental health problems are referred to specialized psychiatric care in hospitals.

Long-term care: Responsibility for the financing and organization of long-term care for older people and support for people with disabilities lies with the municipalities, but routine health care for these patients is the responsibility of the county councils. The Social Services Act of 1980, revised in 2001, specifies that older people have the right to receive public services and help at all stages of life. There are both public and private nursing homes and home care providers. The number of private nursing homes has increased gradually, but varies significantly among municipalities. Payment to private providers is usually contract-based, following a public tendering process. Eligibility for both public and private nursing home care is based on need and determined by the municipality. Since the 1980s, there has been an established national policy to promote home assistance and home care over institutionalized care. It is also national policy that older people are entitled to live in their homes for as long as possible.

What are the key entities for health system governance?

The National Board of Health and Welfare, a large government agency, supervises all health care personnel, develops norms and standards for medical care, provides support, disseminates information, and, through data collection and analysis, ensures that these norms and standards are met. It also maintains health data registers and official statistics. The Medical Responsibility Board (HSAN) decides on disciplinary measures in the event of complaints or possible malpractice. The Swedish Agency for Health and Care Services Analysis, established in 2011, analyzes and evaluates policy and the availability of information from the perspective of citizens and patients.

The National Institute for Public Health provides the national government, government agencies, municipalities, and county councils with knowledge based on scientific evidence, including health technology assessment (HTA). The main HTA body for pharmaceuticals is the Dental and Pharmaceutical Benefits Agency (TLV), which assesses the cost-effectiveness of prescription drugs. Since 2002, TLV has been mandated to decide whether a drug should be included in the National Drug Benefit Scheme. In 2008, its mandate was extended to include dental care. Prescription drugs are priced in part based upon their value.

County councils regulate the establishment of new private practices through requirements for accreditation. Private providers must have agreements with the county council in order to be publicly reimbursed.

What is being done to ensure quality of care?

Concern for patient safety has increased during the past decade, and patient safety indicators are an important part of regional comparisons (see below). Eight priority target areas for preventing adverse events have been specified: 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; and drug-related problems (SALAR 2011).

The National Board of Health and Social Welfare together with National Institute for Public Health and TLV prepare systematic reviews of evidence and guidance for priority-setting, respectively. The knowledge they acquire supports disease management programs developed at the county council level. International guidelines and specialists are also central to the development of these local programs. There is a tendency to develop regional rather than local guidelines to inform priority-setting in order to avoid unnecessary variation in clinical practice. For example, a national cancer plan has been established, and work has begun on the creation of six regional cancer centers (RCCs) intended to cover the whole population.

The 90 or so national quality registers are increasingly important for monitoring and evaluating quality across providers and for assessing treatment options and clinical practice. Registries contain individualized data on diagnosis, treatment, and treatment outcomes. They are monitored annually by an executive committee, funded by the state and county councils, and managed by specialist organizations.

Since 2006, annual performance comparisons of the county councils have been made available to the public through a collaborative project between the National Board of Health and Welfare and SALAR. Information for these comparisons comes from the national quality registers, the National Health Care Barometer Survey, and National Patient Surveys. The 2011 version included 173 indicators, organized into various categories, e.g., prevention, patient satisfaction and trust, access, surgical treatment, and drug treatment. Emphasis is placed on comparisons and ranking across county councils for each indicator. Some 50 indicators are shown also for hospitals, but without rankings. Other projects aim to collect information about availability and waiting times for some patient groups, e.g., cancer patients. Since 2009, statistics on patient experiences have been collected separately through a standardized biannual national patient survey and made available through the Internet to guide people in their choice of provider.

What is being done to improve care coordination?

The division of responsibilities between county councils (for medical treatment) and the municipalities (for nursing and rehabilitation) requires coordination. Efforts to improve collaboration and develop more integrated services include the development of national action plans supported by targeted state grants. Since 2005, there has been a new care guarantee to improve access to care and ensure the equality of that access across the country. The guarantee is based on the 0–7–90–90 rule: instant contact (zero delay) with the health system for advice; seeing a GP within seven days; seeing a specialist within 90 days; and waiting no more than 90 days to receive treatment after being diagnosed.

What is being done to reduce health disparities?

International comparisons indicate that health disparities are relatively low in Sweden. Approaches to reducing disparities include preventive programs to support behavior changes and outpatient services to reach deprived groups and prevent diseases at an early stage.

What is the status of electronic health records?

Every hospital selects and procures its own preferred IT system. There are several ongoing efforts, at the county council level and at the national level, aimed at integrating the various systems used and making them compatible in order to increase their security and effectiveness as a whole. Generally, both the quality of IT systems and the level of use are

high in hospitals and in primary care. More than 90 percent of primary care providers use electronic patient records for diagnostic data and, in 2009, more than half of all Swedish prescriptions were e-prescriptions (Health Consumer Powerhouse 2009).

How are costs controlled?

County councils and municipalities are required by law to set and balance annual budgets for their activities. For prescription drugs, the county councils and the central government form agreements on subsidies to the county councils for a period of years. TLV also engages in value-based pricing of prescription drugs, determining reimbursement based on an assessment of health needs and cost-effectiveness.

At the local level, there is de facto cost control because most health care providers are owned and/or financed by the county councils and municipalities. Most private providers work under contract with county councils. The financing of health services through global budgets, capitation formulas, and contracts, as well as salary-based pay for staff, also contributes to cost control. Although several hospitals are paid on a DRG basis, payments usually fall once a specified volume of activity has been reached, limiting hospitals' incentives to increase activity beyond a certain level. Primary care services are paid for mainly via capitation, with minimal reliance on fee-for-service arrangements. In several county councils, primary care providers are financially responsible for prescription costs, so there are incentives to control pharmaceutical expenditure.

What major innovations and reforms have been introduced?

Recent reforms initiated by individual county councils have focused on developing primary care and coordinated care for older people. Choice of primary care provider combined with freedom of establishment for accredited private providers has been gradually introduced throughout the country during 2007–2010 and has been regulated by law since 2010.

Recent reforms initiated at the national level have focused on responsibility for county councils and municipalities, providing more direct benefits for patient groups and assuring regional equality of services:

- The role of TLV was expanded in 2009 to include decisions regarding subsidies for dental services based on cost-effectiveness and needs assessment, similar to criteria used for drug reimbursement decisions.
- A new waiting time guarantee—the 0–7–90–90 rule—was introduced in 2005 and has been regulated by law since 2010.
- A new patient safety act came into force in 2011, clarifying the responsibilities of health care providers in this area.
- Regional cancer centers (RCCs) were formed in 2011 following a national decision to develop cancer prevention plans as well as treatment and care plans for all stages of the disease.

The author would like to acknowledge Anders Anell as a contributing author to earlier versions of this profile.

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The Swiss Health Care System, 2012

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What is the role of government?

Duties and responsibilities in the health system are divided between three governmental levels: federal, cantonal, and communal. The system can be considered highly decentralized, as the cantons are given a critical role. The 26 cantons are responsible for licensing providers, hospital planning, and subsidizing a number of institutions and organizations. Cantons are like states, in that they are sovereign in all matters that are not specifically designated as the responsibility of the Swiss Confederation by the federal constitution. Each canton and demicanton has its own constitution articulating a comprehensive body of legislation.

Who is covered?

Coverage is universal, with residents mandated under the 1996 Federal Health Insurance Law to purchase statutory health insurance (SHI) from competing insurers. There are virtually no uninsured residents. Every individual intending to reside in Switzerland is required, within three months of arrival, to take out an insurance policy, which is then applied retroactively to the arrival date. Since only those with valid residence of more than three months can take out SHI policies, the problem of undocumented immigrants remains unresolved. SHI typically applies to the individual. It is not sponsored by employers, and dependents must purchase separate policies. Many residents also purchase complementary and supplementary voluntary health insurance (VHI) for coverage of services not covered under the basic package, for free choice of hospital doctor, or for improved accommodation (e.g., an individual or twin room instead of a shared room) when hospitalized.

What is covered?

Services: The Federal Department of Home Affairs decides whether or not to include a service in the SHI benefits package by evaluating whether the service is effective, appropriate, and cost-effective. It is supported in this task by the Federal Office of Public Health and by Swissmedic, the Swiss agency for the authorization and supervision of therapeutic products, among other authorities.

SHI covers most general practitioner (GP) and specialist services, as well as an extensive list of pharmaceuticals, medical devices, physiotherapy (if prescribed by a physician), and some preventive measures, including the costs of selected vaccinations, selected general health examinations, and early detection of disease among certain risk groups and for certain diseases (e.g., one mammogram a year if a woman has a family history of breast cancer). Hospital services are covered by SHI, but highly subsidized by the cantons. Care for mental illnesses is covered if provided by certified physicians. The services of nonmedical professionals (e.g., psychotherapy by psychologists) are covered only if prescribed by a qualified specialist and provided to patients in the specialists' practices. Otherwise, those services must be covered by VHI or paid for out-of-pocket by patients. SHI covers only "medically necessary" services in long-term care (see below). Dental care is largely excluded from the SHI benefits package, as is optometry for adults (unless necessitated by a primary disease). From mid-2012, however, optometry for children has been covered, along with some complementary medicine.

Cost-sharing: Insurers are required to offer a minimum annual deductible of CHF300 (US\$248) for adults in SHI, though enrollees may opt for a higher deductible and a lower premium. Enrollees pay 10 percent coinsurance above deductibles for all services (except for a 20% charge for brand-name drugs with a generic alternative unless specifically

prescribed) and a CHF15 (US\$12) copayment per inpatient day. Providers are not allowed to charge higher prices than SHI will reimburse.

Safety net: Out-of-pocket spending on covered services (i.e., 10 percent coinsurance) is capped at CHF700 (US\$580) for adults, and at CHF350 (US\$290) for minors under 19 years of age, in a given year. Adults must make an out-of-pocket copayment of CHF15 (US\$13) per hospital day. Maternity care and a few preventive services are exempt from deductibles, coinsurance, and copayments. Minors are exempt from deductibles and from copayments for inpatient care. The Confederation, or federal government, and the cantons provide income-based subsidies to individuals or households to help cover SHI premiums; in addition to variation based on income thresholds, the process varies by canton. Overall, around 30 percent of residents benefit from individual premium subsidies. Municipalities or cantons cover the health insurance expenses of social-assistance beneficiaries and recipients of supplementary old age and disability benefits.

How is the health system financed?

Publicly financed health care: There are three streams of funding for publicly financed health care: mandatory SHI (see below); direct financing by government for health care providers (tax-financed budgets spent by the Confederation, cantons, and municipalities; the largest portion of this spending is given as cantonal subsidies to hospitals providing inpatient care); and social insurance contributions from health-related coverage of accident insurance, old-age insurance, disability insurance, and military insurance.

Mandatory SHI, regulated by law and supervised by the Federal Office of Public Health, is purchased on an individual basis from a number of competing nonprofit insurers. Cantonal average annual premiums in 2012 for adults (for ages 26 and above, with a deductible of CHF300 [US\$248]) range from CHF3,510 (US\$2,907) (Appenzell Innerhoden) to CHF6,005 (US\$4,973) (Basel-Stadt). Costs are redistributed among insurers by a central fund operated by the Common Institution under the Federal Health Insurance Law, in accordance with a risk equalization scheme adjusted for canton, age, and gender. From 2012, risk equalization also takes into account hospital or nursing home stays of more than three days in the previous year (see below).

Insurers offer premiums for defined regions, and the basis for variation in those premiums is limited to age category (children up to age 18, young adults ages 19 to 25, and adults over 25), level of deductible, and alternative insurance plan (so-called managed care plans). In 2010, 46.9 percent of residents opted for basic coverage with a managed care insurer: either a health maintenance organization, an independent practice association, or a fee-for-service plan with gatekeeping provisions. Within a given region, the premium variation between insurers can be significant—as much as 70 percent in the city of Zurich, for example. This variation may be in large part because of risk selection, rather than efficiency differences. All premiums for the subsequent year are controlled and authorized by the Federal Office of Public Health, which rejects only those premiums that do not cover past, current, and estimated future costs for the insured persons in a given premium region. In such cases the insurer has to propose a new premium that satisfies the Federal Office of Public Health's criteria.

Cantons partially finance public acute care hospitals, with the remainder financed by contributions from insurers. Private hospitals also receive public subsidies if the cantonal governments have need of their services to guarantee a sufficient supply of acute care services within that canton. The other part of the cantonal governments' direct subsidization goes to outpatient care, to medical homes, and to public health programs.

All expenditures by government are financed by general taxation. In 2009, direct spending by government accounted for 19.4 percent of the total health expenditure (CHF61 billion [US\$51 billion]), and income-based SHI subsidies for

5.8 percent. Including SHI premiums (29.3% of total health expenditure) and those of other social insurance schemes (5.8%), publicly financed health care accounted for 60.2 percent of all health care spending.

Privately financed health care: Private expenditure accounted for 39.8 percent of total health expenditure in 2009. VHI is regulated by the Swiss Financial Market Supervisory Authority; health insurers offering voluntary coverage can vary benefit packages and premiums and refuse enrollment to applicants based on medical history. Service tariffs are usually negotiated directly between insurers and service providers. Unlike statutory health insurers, voluntary insurers are normally for-profit; often an insurer will have a nonprofit branch offering SHI and a for-profit branch offering VHI. It is illegal for voluntary insurers to base voluntary insurance enrollment decisions on health information obtained via basic health coverage, but this rule is not easily enforced. VHI accounted for 8.8 percent of total health expenditure in 2009. There is no available information on the number of persons covered.

In 2009, out-of-pocket payments accounted for three-quarters of all private expenditure on health (30% of total health expenditure). Cost-sharing in SHI and VHI accounted for 5.6 percent of total health expenditure. Most out-of-pocket payments were spent on dentistry and long-term care. More than 90 percent of all expenditure on dental treatment is accounted for by households.

How is the delivery system organized and financed?

Physicians: Residents are not required to register with a GP, and generally have free choice among self-employed GPs, unless enrolled in certain managed care plans. In 2011, 22 percent of doctors in the outpatient sector were classified as GPs. Outpatient care tends to be physician-centered, with nurses playing a relatively small role. Solo practice is the norm.

Residents have free access (without referral) to self-employed specialists unless enrolled in a gatekeeping managed care plan. Specialist practices tend to be concentrated in urban areas and in the proximity of acute-care hospitals. Specialists can hold joint appointments in public hospitals and private practice. Apart from some managed care plans, in which physician groups are paid on a capitation basis, ambulatory physicians (including GPs) are paid according to a national fee-for-service scale based on points (TARMED). TARMED offers incentives for less resource-intensive forms of care. The point values can vary among cantons and service groups (physicians, hospitals) and are negotiated annually between the health insurers' association, *santésuisse*, and the cantonal medical associations or hospitals, or decided by the cantonal government if the other parties cannot agree.

After-hours care: The cantons guarantee the reliability of care provision and are responsible for after-hours care. They delegate those services to the cantonal doctors' associations, which organize and run appropriate care networks in collaboration with their affiliated doctors' facilities. The networks can also include public and private ambulance and rescue services, hospital emergency services, and, increasingly common in recent years, walk-in clinics. There is no regular exchange of information between these services and GPs' offices (as people are also not required to register with a GP). TARMED includes an additional payment to physicians for after-hours care, but the payment is heavily criticized by physicians as insufficient to render such services attractive.

Hospitals: About 70 percent of acute inpatient care is provided by public or publicly subsidized private hospitals. Hospitals receive around half of their funding from insurers. The corresponding base rates (i.e., the amount that is paid in the DRG system for a hospital case with cost-weight 1.0) are negotiated between hospitals and health insurers and must be approved by the cantonal government. The remaining costs of public and subsidized hospitals are covered by the cantons, which provided 44.5 percent of inpatient funding in 2009.

Cantons are also responsible for hospital planning. The policy of planning and funding hospitals at the cantonal rather than the central level is one of the main reasons why the Swiss system is fragmented along cantonal lines. However, since 2009, cantons have been legally bound to coordinate their planning with other cantons. The introduction of a national diagnosis-related group (DRG) inpatient payment system in 2012 (to replace per-diem payment) will also redress cantonal fragmentation. The precise remuneration scheme depends on the insurance contracts; as a consequence, fee-for-service remuneration is still possible for patients with VHI for inpatient services not covered under SHI. Hospital-based physicians are normally paid a salary, and public-hospital physicians can receive extra payments for seeing privately insured patients.

Mental health care: Psychiatric practices are generally private, and psychiatric clinics and hospital departments are a mix of public, private with state subsidies, and fully private. There is also a wide range of sociopsychiatric services and day-care institutions that are mainly state-run and -funded. The provision of psychiatric health care is not systematically integrated into primary care in Switzerland as in other countries. Outpatient psychiatric prices are calculated using the TARMED tariff system, while inpatient care prices are usually calculated as a daily rate.

Long-term care: Since 2011, SHI has paid a fixed contribution to cover direct care-related (i.e., medically necessary) long-term care costs; the patient pays at most 20 percent of noncovered care-related costs, and the remaining care-related costs are financed by the canton or municipality. Long-term inpatient care (in nursing homes and institutions for disabled and chronically ill persons) cost a total of CHF10.5 billion (US\$8.7 billion) in 2009, representing 17.2 percent of total health expenditure. Two-thirds of these costs (64.3%) are paid for by private households (out-of-pocket and cost-sharing), 15.3 percent by SHI (nursing care), and the rest by government subsidies (19.8%) and disability insurance. A third of the 1,500 long-term care institutions in Switzerland are state-funded, a third privately funded but with public subsidies, and a third funded exclusively by private means. For long-term outpatient care (called Spitex), SHI also covers the cost of home nursing care, which made up roughly a third of Spitex's total expenditure of CHF1.3 billion (US\$1.1 billion) in 2009. The other two-thirds, devoted mainly to support and household services, is paid for by customers and via state subsidies.

What are the key entities for health system governance?

Mandatory statutory health insurance (SHI) is regulated by law and supervised by the Federal Office of Public Health. The Federal Department of Home Affairs defines the SHI benefits package; it is supported in this task by the Federal Office of Public Health and various expert authorities, in particular by Swissmedic. The Swiss Health Observatory (Obsan) was created 10 years ago to improve the transfer of health information to political authorities, and different strategies have been developed to do so. Since Swiss health care is largely decentralized, the key entities for health system governance exist mainly at the cantonal level.

What is being done to ensure quality of care?

Professional self-regulation has been the traditional approach to quality improvement. Providers must be licensed in order to practice medicine, and are required to meet educational and regulatory standards. However, only the Swiss Medical Association requires regular further education of its member physicians in order for them to maintain medical specialist titles; revalidation by state authorities (i.e., cantons) is not currently required. An analysis of the degree to which evidence-based medicine is taught in postgraduate training in different clinical fields in Switzerland shows that it is not yet an important part of the medical curriculum. Many local quality initiatives have been undertaken, often at the provider level, including the development of clinical pathways and consensus guidelines, although these are not standardized or used systematically nationwide. However, providers have very little financial incentive to improve the quality of outpatient care. In recent years, the government has been considering the implementation of a framework for systematic quality measurement, public reporting, and minimum national standards. At the end of 2009, the Swiss

Federal Council, the supreme governing and executive authority of the country, approved the Quality Strategy of the Swiss Health System. The report establishes in detail different areas of quality control in which the Confederation will play an active role in the future. The main focus is the implementation of a bill for quality management in the education of medical personnel to promote public health literacy. One of the first measures has been the publication of medical quality indicators for Swiss hospitals, on a voluntary basis.

What is being done to improve care coordination?

Care coordination is seen as underdeveloped, particularly in light of a projected lack of providers in the future and the need to improve efficiency to increase capacity. A task force led by the cantons and the Confederation has recently proposed new approaches to care. Some focus on fully integrated care for all patient groups, while others focus on specific patient populations (i.e., chronic patients) or propose specific interventions (i.e., disease prevention). However, only one element of these new approaches encourages collaboration between different types of health professional. As a result, the skills of nonmedical health professionals (pharmacists, physiotherapists, psychologists, etc.) are not fully applied in the treatment of people with chronic conditions.

What is being done to reduce health disparities?

There are several reasons why health disparities have not received much political and professional interest at the national level. First, health inequalities are not considered to be significant in comparison to other Organization for Economic Cooperation and Development (OECD) countries; second, it is still difficult to obtain detailed statistical information about the epidemiological situation and health outcomes of the Swiss population as a whole, and for its different regional and socioeconomic subgroups in particular; and third, health inequalities are seen more as the responsibility of regional authorities (cantons or communes, the lowest level of the state structure) than of the federal government, making them much less visible at the national level.

What is the status of electronic health records?

A national e-health service called eHealth Suisse (an administrative unit of the Federal Office of Public Health) was established in 2007. EHealth Suisse is coordinated and funded by the federal and cantonal governments and is divided into three fields of action. First, starting in 2015, everyone in Switzerland should be able to give providers electronic access to information relevant to their treatment. Second, health-related Web sites and online services will be required to undergo quality certification and a national health Web site will be constructed. Third, the necessary legal changes will be made to realize these measures. A formal statement of the Executive Federal Council is expected in November 2012.

A key element of eHealth Suisse is the SHI enrollee card, introduced in 2010, which encodes a personal identification number and allows all insured persons to record information about allergies, illnesses, and medication. GP eHealth is still at an early stage, and there are ongoing discussions about forthcoming incentives to be provided to physicians for adopting new technologies. Financial incentives and binding technical standards are seen to hold the most promise.

Hospitals are more advanced: some have merged their internal clinic systems in recent years and hold interdisciplinary patient files. However, the extent of this development varies greatly among hospitals and across cantons, in spite of efforts by eHealth Suisse to convince providers of the benefits of EHRs for medical practice. An interoperable national patient record is not a priority for eHealth Suisse, since the principles of decentralization, privacy, and data protection are regarded as very important in Swiss health care.

How are costs controlled?

Switzerland's health costs are among the highest in the world (only the U.S. and Norway spent more). The introduction of regulated competition among nonprofit health insurers and among service providers in 1996 aimed to contain costs

as well as to guarantee high-quality, comprehensive health care, and to establish greater solidarity among the insured. While scientific analyses and public perception have been particularly critical of competition's ability to cut or control health care costs, the other objectives are generally regarded as having been successfully achieved.

The failure of regulated competition to contain costs is largely ascribed to inadequate risk equalization, the dual funding of hospitals by cantons and insurers, and pressure on insurers to contract with all certified providers. In 2012, the risk equalization formula has been improved, and should now bolster insurers' incentives to improve efficiency. In the future it may be changed from a retrospective to a fully prospective system, further strengthening those incentives. Greater use of managed care plans employing gatekeeping and capitation-based physician payment may also help to reduce expenditure in the future.

All new pharmaceuticals are evaluated before a coverage decision is made, pending which both effectiveness (by Swissmedic) and cost (by the Federal Office of Public Health) are considered. Efforts are also being made to reassess more frequently the price of older drugs. Generic drugs must be sold for at least 50 percent less than the original brand; however, they made up only 9.8 percent of all drugs sold in the Swiss market in 2011. Patients pay a higher rate of coinsurance for brand-name drugs that have a generic equivalent (20% instead of 10%). Pharmacists are paid a flat amount for filling prescriptions, so have no financial incentive to dispense the more expensive drugs.

What major innovations and reforms have been introduced?

Since 2000, two reform packages have been debated in parliament. The first was mainly concerned with reform of risk equalization, health care prices, monitoring of insurers, SHI enrollee cards, selective contracting, premium reduction, and cost-sharing. The second involved reform of hospital funding and managed care. A "necessity clause" introduced in 2002 and regulating the establishment of new outpatient service providers was in place for GPs through 2009 and for specialist physicians and pharmacists until 2011. Discussions about reintroducing the necessity clause for specialists have not ceased since then.

In June 2008, the federal parliament reformed long-term care financing. Instead of covering the costs of basic care (i.e., activities of daily living) and nursing care for patients in nursing homes and those needing home care, SHI pays a flat contribution fixed by the Federal Council. The patient contributes up to 20 percent of the highest amount paid by SHI, and the cantons and communes regulate the financing of the remaining costs. The changes were implemented in 2011.

In addition to converting hospital payment to the DRG system in 2012, the federal parliament plans to refine the risk equalization formula. However, the parliament's proposal that was part of the proposed law to promote managed care was rejected in a June 2012 referendum. In addition to legal changes, the Federal Council has also decided to increase the degree to which the insured can opt for a higher deduction in order to reduce their premium. The hope is that more people will choose higher deductibles, and that this will more strongly disincentivize unnecessary care.

In the primary care sector, the Federal Council launched an initiative, the *Masterplan Hausarztmedizin und medizinische Grundversorgung*, which focuses on finding reasonable and quick solutions for the most urgent problems in primary care through concrete measures in the areas of training, further education, research, new care models, after-hours care, and tariffs. Along with the *Masterplan*, the Federal Council would also like to encourage the withdrawal of a popular initiative ("*Ja zur Hausarztmedizin*," or "Yes to general practice"), which began in June 2012 and will end in spring 2013. For the Federal Council, the initiative is too focused on promoting only primary care physicians as the center of care, rather than promoting other primary health care specialties as well, like professional home care.

The author would like to acknowledge David Squires as a contributing author to earlier versions of this profile.

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The United States Health Care System, 2012

THE COMMONWEALTH FUND

What is the role of government?

The role of government is complex and continues to evolve. Health insurance coverage is fragmented, with numerous private and public sources as well as wide gaps in coverage rates across the U.S. population. The Centers for Medicare and Medicaid Services (CMS) administers the Medicare program (a federal program for those age 65 and older, some of the disabled, and those with end-stage renal disease) and works in partnership with state governments to administer Medicaid and the State Children's Health Insurance Program (federal–state programs for certain low-income populations). Private insurance is regulated at the state level, but generally is allowed wide discretion in designing benefit packages.

Who is covered?

In 2010, 56 percent of U.S. residents received primary care coverage from private voluntary health insurance (VHI), with 51 percent receiving it through their employers and 5 percent acquiring coverage directly. Public programs covered 27 percent of residents: 14 percent under Medicare, 12 percent under Medicaid, and 1 percent under military health care programs. Almost 50 million residents (16% of the population) were uninsured. Among those who are insured, 29 million are “underinsured,” vulnerable to high out-of-pocket expenses in relation to their income. In 2009, about 9.4 million Americans were enrolled in both Medicare and Medicaid (the “dual eligibles”). The federal–state Children's Health Insurance Program (CHIP), which offers coverage to children in low-income families—in some states as an extension of Medicaid and in others as a separate program—covers 8.0 million children. Undocumented immigrants are generally ineligible for public coverage, and an estimated 57 percent were uninsured in 2007. Hospitals that accept Medicare funds (which are the vast majority) must provide care to stabilize patients with an emergency medical condition, and several states allow undocumented immigrants to qualify for emergency Medicaid coverage beyond “stabilization” care. Some state and local governments provide additional coverage, such as for undocumented children or pregnant women.

It is projected that the implementation of the Patient Protection and Affordable Care Act will reduce the number of uninsured by 30 million by 2022.

What is covered?

Services: Benefit packages vary according to type of insurance, but typically include inpatient and outpatient hospital care and physician services. Many also include preventive services, mental health care, physiotherapy, and prescription drug coverage. Private insurance plans often have restricted networks of providers, with limited or no coverage if patients receive care out-of-network. As of September 2010, private health insurance is required to cover certain preventive services (with no cost-sharing if services are provided in-network), and in 2011 Medicare eliminated cost-sharing for a number of preventive services. Private coverage for dental care and optometry is also available—sometimes through separate policies—as is long-term care insurance. In January 2006, Medicare was expanded to offer outpatient prescription drug coverage through a supplementary program. Medicaid also offers more extensive coverage of nursing home and home health care than other sources of insurance, although it varies from state to state within federal eligibility and coverage requirements.

Cost-sharing: Cost-sharing provisions in private health insurance plans vary widely. High-deductible health plans can be paired with tax-advantaged “health savings accounts”; these plans can allow maximum annual out-of-pocket costs up to \$6,050 for an individual or \$12,100 for a family for care received in-network. Medicare requires deductibles for hospital stays and ambulatory care and copayments for physician visits and other services, while Medicaid requires minimal cost-sharing. Providers are typically not allowed to balance-bill patients.

Safety net: A variable and patchwork mix of organizations and programs deliver care for uninsured, low-income, and vulnerable patients in the U.S., including public hospitals, community health centers, local health departments, and free clinics. Hospitals that provide care to a high percentage of low-income and uninsured patients receive federal Disproportionate Share Hospital payments to partially offset their uncompensated care, although those payments are scheduled to be reduced after the insurance expansion provisions of the Affordable Care Act are implemented. The federal government also funds community health centers, which provide a major source of primary care for underserved and uninsured populations. Private providers are a significant source of charity and uncompensated care.

How is the health system financed?

Publicly financed health care: In 2010, public spending accounted for 49.1 percent of total health care spending. Medicare is financed through a combination of payroll taxes, premiums, and federal general revenues. Medicaid is a tax-funded, joint federal–state health insurance program, administered by the states, that operate within broad federal guidelines. States receive matching funds from the federal government at rates that vary based on their per-capita income—in 2012, federal matching ranged from 50.0 percent to 74.2 percent of states’ Medicaid expenditures.

Privately funded health care: In 2010, private health insurance accounted for 34.7 percent of total health care spending. Close to 500 not-for-profit and for-profit health insurance companies provide private health insurance. They are regulated by state insurance commissioners and are subject to varying state (and federal) regulations. Private health insurance can be purchased by individuals, but is usually funded by voluntary tax-free premium contributions shared by employers and employees on an employer-specific basis, sometimes varying by type of employee. The tax exemption for employer-based health insurance amounts to about US\$250 billion annually. Some individuals are covered by both public and private health insurance—for example, many Medicare beneficiaries purchase private complementary “Medi-gap” policies to cover additional services and cost-sharing. Private insurers, in general, pay rates to providers that are higher than the rates paid under public programs, particularly Medicaid, leading to wide variations in payment rates among payment sources and in revenues among providers, depending on their payer mix and market power.

Out-of-pocket payments, through cost-sharing insurance arrangements and as expenditure paid directly by private households, accounted for 12.3 percent of total national health expenditures in 2010, which amounted to US\$970 per capita.

How are health care services organized and financed?

Payment rates under the Medicare program are typically determined according to a fee schedule, with various regional adjustments. Rates under the Medicaid program vary by state in how they are determined. Private health insurers typically negotiate payment rates with providers.

Physicians: The majority of ambulatory-care physicians are in private practices, many of which they own themselves or in groups. Primary care doctors account for roughly one-third of all U.S. doctors. The majority of primary care doctors operate in small practices with fewer than five full-time–equivalent physicians. Patients generally have free choice of doctor, at least among in-network providers, and are usually not required to register with a primary care practice, depending on their insurance plan. Primary care doctors have no formal gatekeeper function, except within some

managed care plans. Specialist doctors can work in both private practice and hospitals. Physicians are paid through a combination of methods: negotiated fees paid by most private insurers, capitation rate contracts with some private insurers, and administratively set fees paid by the major public programs. Insured patients are generally directly responsible for some portion of physician payment, and uninsured patients are nominally responsible for all or part of physicians' charges, although those charges frequently are reduced or waived (with the extent of charity care varying substantially among providers).

After-hours care: Provisions for after-hours care vary widely, with much of it provided by emergency rooms. Compared with other industrialized countries, after-hours care arrangements are minimal—only 29 percent of U.S. primary care doctors in 2009 reported having arrangements for their patients to see a doctor or nurse after hours without going to the emergency room. Some insurance companies make after-hour telephone advice lines available.

Hospitals: Hospitals can be nonprofit (~70% of beds), for-profit (~15% of beds), or public (~15% of beds). Public hospitals can serve private patients. Hospitals are paid through a combination of methods: per-service or per-diem charges, per-admission or prospective payments, and capitation. Some hospital-based physicians are salaried hospital employees, but most are paid on some form of fee-for-service basis—physician payment is not included in Medicare's prospective diagnosis-related group (DRG) payments. Hospitalists are growing increasingly common, present in 89 percent of hospitals with more than 200 beds in 2009.

Mental health care: Mental health care is provided by a mix of for-profit and nonprofit providers, and paid for through a variety of methods that vary by provider type and payer. As of 2010, most employer-based insurance has to provide the same degree of coverage for mental health care as for medical care. Integration of mental health and primary care is a goal of many researchers and policymakers, but is not currently widespread.

Long-term care: Long-term care is provided by a mix of for-profit and nonprofit providers, and paid for through a variety of methods that vary by provider type and payer. Medicaid, but not Medicare, covers long-term care—because Medicaid is a means-tested program, patients often must “spend down” their assets to qualify for long-term care assistance. Hospice is included as a Medicare benefit, as are home health care and care provided by skilled nursing facilities in certain circumstances.

What are the key entities for system governance?

The Department of Health and Human Services (HHS) is the federal government's principal agency involved with health care services. The Centers for Medicare and Medicaid Services falls within HHS, as does the Centers for Disease Control and Prevention, which conducts research and programs to protect public health and safety; the National Institutes of Health, which is responsible for biomedical and health-related research; the Health Resources and Services Administration, which supports efforts to improve health care access for people who are uninsured, isolated, or medically vulnerable; and the Agency for Healthcare Research and Quality (AHRQ), which sponsors, conducts, and disseminates research to improve health care quality and safety.

The Institute of Medicine, an independent, nonprofit organization that works outside of government, acts as an adviser to policymakers and the private sector on improving the nation's health. Many studies are undertaken in response to specific mandates from Congress and requests from federal agencies or independent organizations. Stakeholder associations (e.g., the American Medical Association) comment on and lobby for policies affecting the health system.

What is being done to ensure quality of care?

The Joint Commission—an independent, nonprofit organization—accredits more than 15,000 health care organizations across the country, primarily hospitals, long-term care facilities, and laboratories, using criteria that include patient treatment, governance, culture, performance, and quality improvement. The National Committee for Quality Assurance is the primary accreditor of private health plans. Accredited organizations must report annually on more than 30 performance measures and must meet standards in nearly 60 areas. The American Board of Medical Specialties and the American Board of Internal Medicine provide certification to physicians who meet various standards of quality. The National Quality Forum—a nonprofit organization—builds consensus on national performance priorities and on standards for performance measurement and public reporting. AHRQ, funded by the federal government, conducts evidence-based research on practices, outcomes, effectiveness, clinical guidelines, safety, patient experience, health information technology (HIT), and disparities.

CMS has moved toward increased public reporting with Hospital Compare, a service that reports on process of care, outcome of care, and patient experience measures, and Nursing Home Compare, which reports on a number of quality indicators measured through inspections and a review of records. In addition, states including California, Pennsylvania, and Wisconsin have developed their own public reporting systems for ambulatory care, intended to increase quality improvement and provide benchmark data.

Medicare has developed a variety of pay-for-performance programs. In 2008, Medicare stopped paying hospitals for the added costs of eight preventable events, such as operations to retrieve sponges or tools left inside a patient after surgery. Beginning in October 2012, Medicare has begun tying hospital reimbursement rates to performance indicators that include both process and patient experience measures. These and other evolving forms of performance-based payment are informed by the quality measurement standards defined by the National Quality Forum. The majority of private insurance providers also have pay-for-performance programs.

The 2009 American Recovery and Reinvestment Act provided US\$1.1 billion for comparative-effectiveness research. The 2010 Patient Protection and Affordable Care Act continued this investment through the creation of the Patient-Centered Outcomes Research Institute (PCORI), tasked with setting national clinical comparative-effectiveness research priorities and managing the funding and conducting of research. The scope of the research funded through PCORI is broad, including protocols for treatment, care management, and delivery; procedures; diagnostic tools; medical devices; therapeutics; and any other components of the treatment, diagnosis, or prevention of illness or injury. The Institute is not permitted to present comparative-research findings as practice guidelines, coverage recommendations, or payment or policy recommendations, and federal insurance programs are not allowed to use PCORI findings as the sole basis for denying coverage. PCORI is overseen by a board of governors that includes the heads of the National Institutes of Health and AHRQ, as well as 19 members from throughout the health care sector who are appointed by the U.S. Government Accountability Office. PCORI's research is funded through a tax on private insurance companies.

What is being done to improve care coordination?

Physician practices are mostly small (with less than five physicians) and single specialty, though multispecialty practices are not uncommon. Nurses and other nonphysician staff often provide and help manage patients' care, though their scope of practice varies by state. The government and private insurance companies are funding many initiatives aimed at shifting from a specialist-focused health system to one that is primary care-focused. The "patient-centered medical home" model—in which a patient can receive targeted, accessible, continuous, coordinated, and family-centered care by a personal physician—has gained particular interest among U.S. experts and policymakers as a means to strengthen primary care. For example, under one current program, the Multi-payer Advanced Primary Care Initiative, CMS participates in multipayer reform initiatives currently being conducted by states to make advanced primary care practices more

broadly available. It is hoped that patient-centered medical homes will reduce unjustified utilization and expenditures; improve the safety, effectiveness, timeliness, and efficiency of health care; enable more decision-making by patients; and increase the availability and improve delivery of care in underserved areas.

Another movement gathering considerable momentum in the U.S. among both public and private payers is the creation of “accountable care organizations” (ACOs). ACOs are networks of providers, including hospitals and physicians, that agree to take responsibility for providing a defined population with care that meets quality targets; in exchange, they can share in the savings that constitute the difference between forecasted and actual health care spending for their population. Two Medicare-driven ACO programs are in the process of being rolled out—the Medicare Shared-Savings Program and the Pioneer ACO Program. Other ACO-like models already exist among private insurers; for example, Blue Cross Blue Shield’s “alternative quality contract,” a variant of the ACO concept, has been in place in Massachusetts since 2009.

Medicare, Medicaid, and various private purchasers, including employer groups, are also experimenting with new payment incentives that reward higher-quality and more efficient care. In addition to pay-for-performance, strategies being implemented include “bundled” payments, under which a single payment is made for services received by one patient from a number of providers.

What is being done to reduce disparities?

Wide disparities exist in the United States in the accessibility and quality of health care. Since 2003, AHRQ releases an annual report—the National Healthcare Disparities Report—that documents disparities among racial, ethnic, income, and other demographic groups, and highlights priority areas for action. Federally Qualified Health Centers (FQHCs), which are eligible for certain types of public reimbursement, provide comprehensive primary and preventive care regardless of their patients’ ability to pay. Initially created to provide health care to underserved and vulnerable populations, FQHCs largely provide safety-net services to the uninsured. Medicaid and CHIP provide public health insurance coverage for certain low-income populations. A multitude of public initiatives and policies at the local, state, and federal levels target disparities, as do a wide range of private initiatives.

What is the status of electronic health records?

In 2012, 69 percent of primary care physicians used some form of electronic medical record system, as did 27 percent of hospitals in 2011. There is no unique patient identifier in the U.S. To stimulate the uptake of HIT, the 2009 American Recovery and Reinvestment Act made a significant investment through Medicare and the Office of the National Coordinator for Health Information Technology. Financial incentives for physicians and hospitals, totaling up to US\$27 billion over six years, were tied to the attainment of benchmarks for the “meaningful use” of HIT. Regional HIT extension centers were also created to provide technical assistance, guidance, and information on best practices to support providers’ use of HIT. “Beacon communities” with already high rates of HIT adoption were given additional funding to demonstrate how HIT can be leveraged to improve quality, cost-efficiency, and population health. Finally, support is being provided for the development and use of clinical registries and associated health outcomes research networks.

How are costs controlled?

Annual per-capita health expenditure in the U.S. is the highest in the world—US\$8,233 in 2010. Total national health expenditures have been increasing at rates well above increases in national income, with total expenditures reaching 17.6 percent of GDP in 2010 and expected to reach 19.6 percent by 2021 if current trends continue. Payers have attempted to control cost growth through a combination of selective provider contracting, discount price negotiations, utilization control practices, risk-sharing payment methods, and managed care. The 2003 Medicare Modernization Act

included new provisions granting tax credits for Health Savings Accounts—tax-free accounts for out-of-pocket health expenses—if coupled with high-deductible (US\$1,000+) health insurance plans. Tax incentives plus double-digit increases in premiums have led to a shift in benefit design toward higher patient payments.

What major innovations and reforms have been introduced?

In March 2010, President Obama signed into law the Patient Protection and Affordable Care Act, enacting a sweeping series of insurance and health system reforms. Major provisions of the legislation include expanding Medicaid to include everyone with incomes below 133 percent of the federal poverty level; establishing state-based or, potentially, regional insurance exchanges for individuals and small businesses; providing insurance subsidies for low- and middle-income individuals and tax credits for small businesses; instituting a series of insurance regulations including guaranteed issue and community rating; eliminating copayments for recommended preventive services and immunizations; instituting a mandate for individuals to have, and businesses to offer, health insurance; establishing the PCORI to conduct comparative-effectiveness research; establishing the Center for Medicare and Medicaid Innovation to develop and test payment models for improving quality and lowering costs; establishing the Independent Payment Advisory Board, with a mandate to reduce the growth of Medicare expenditures through payment reforms; creating a shared savings program in Medicare for ACOs that take responsibility for efficiently providing care to a defined population and meeting quality targets; increasing Medicare and Medicaid payments for primary care; and expanding federal funding for community health centers that provide care for low-income and uninsured individuals.

The 2009 American Recovery and Reinvestment Act also made a number of significant investments in the health system, including a short-term boost in federal Medicaid funding and subsidies for the recently unemployed to remain insured. Investments were also made in stimulating the use of HIT and in comparative-effectiveness research.

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