

International Profiles of Health Care Systems

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



The Commonwealth Fund June 2010

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Abstract: This publication presents overviews of the health care systems of 13 countries—Australia, Canada, Denmark, England, France, Germany, Italy, the Netherlands, New Zealand, Norway, Sweden, Switzerland, and the United States. A summary table presents information on population, health care spending, number of physicians, hospital spending and utilization, use of health information technology, and number of potentially avoidable deaths. Each country summary provides information on insurance coverage and benefits, health system financing, delivery system organization, quality assurance mechanisms, efforts to improve efficiency and control costs, and recent innovations and reforms.

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Health Care System Overviews

The Commonwealth Fund David Squires

Australia: Australia achieves universal coverage through Medicare, a tax-funded public insurance program that covers most medical care, including physician and hospital services and prescription drugs. Most health services are financed and regulated by the federal government, although the states and territories have responsibility for public hospital care. Besides Medicare, roughly half of Australians receive additional coverage through private insurance, which the government subsidizes and which covers such services as dental care and private hospitals. Most doctors operate in private practice and are paid on a fee-for-service basis, and GPs act as gatekeepers to specialized care. Roughly two-thirds of hospital beds are in public hospitals and the rest in private, although private patients can be treated in public hospitals. Physicians in public hospitals either earn a salary and can receive additional fees for seeing private patients, or are in private practice and receive hourly compensation for treating public patients. Current policy goals include developing a new management structure for public hospitals around local area networks, increasing the federal government's contribution to public hospitals, introducing performance reporting, and strengthening primary care.

Canada: All citizens receive health coverage through Medicare, yet there is no single Canadian health system—rather, each province is responsible for delivering care within its borders according to a broad set of principles laid out in the Canada Health Act and in accordance with any intergovernmental funding agreements. Medically necessary hospital and physician services are fully covered across provinces, although there are variations in prescription drug coverage. Roughly two-thirds of Canadians have private insurance, but private coverage for services covered under Medicare is not allowed; instead, private insurance covers such services as dental care, prescription drugs, and home care. Medicare is financed through general taxation, much of which is distributed by the federal government to the provinces via transfer payments; responsibility for financing and delivering health care is therefore split between the two levels of government. Most doctors operate in private practices and are paid on a fee-for-service basis, although an increasing number of providers receive alternative forms of funding and are moving toward more integrated models of care. Ownership of hospitals varies across jurisdictions in Canada; in general, they are almost all not-for-profit and are owned by religious orders, universities, governments, municipalities, or municipal corporations. Hospital-based doctors are generally paid fee-for-service. Recent policy focuses on areas including improving waiting times, strengthening primary care, and broadening the adoption of health information technology.

Denmark: Denmark provides tax-financed health care to all residents. Hospital and primary care are free of charge and there is limited cost-sharing for dental care, outpatient prescription drugs, and optometry services. Roughly two in five residents have complementary private insurance to cover cost-sharing and services not fully covered by the state, such as physiotherapy, and one in five residents has supplementary insurance that covers access to private-care providers and facilities. Five regions have responsibility for most medical services, including hospitals and primary care, while long-term care is a collaborative effort between the regions and the 98 municipalities. Municipalities also play a significant role in planning public health services. Self-employed general practitioners act as gatekeepers to secondary care and are paid through a combination of capitation (30%) and fee-for-service. Nearly all hospitals are publicly owned, and hospital physicians are paid a salary. Non–hospital-based specialists are paid on a fee-for-service basis. Recent reforms have sought to bolster the performance of the hospital sector through centralizing administration and infrastructure investments. Other policies have focused on improving care pathways for life-threatening diseases and implementing wait-time guarantees.

England: Health care in England is provided to all residents through the National Health Service (NHS), including hospital and physician services and prescription drugs. The NHS is financed primarily through general taxation and requires very little patient cost-sharing (mainly for outpatient prescription drugs, dental care, and optometry care). About one of 10 residents has supplementary private insurance covering choice of specialist and faster access to elective surgery. Eighty percent of the NHS budget is controlled by 152 primary care trusts (PCTs), which contract with physicians and hospitals to provide care to a geographically defined population. Hospitals are organized as trusts responsible to the Secretary of State for Health, with varying degrees of autonomy. Specialists are mainly salaried hospital employees, although many supplement their income treating private patients. Since 2003, the NHS has begun purchasing a small but increasing share of routine elective surgery and diagnostics from private providers. Primary care providers are mainly private, operate under an annual national contract, and are paid directly by PCTs through a combination of salary, capitation, and fee-for-service. The 2004 GP contract introduced a comprehensive pay-for-performance initiative, providing substantial financial incentives tied to achievement of clinical and other performance targets. Since 2003, a new payment framework has been introduced gradually, basing contracts with acute, mental health, ambulance, and community service providers on activity and, since 2009, a proportion of their income is conditional on quality and innovation.

France: France has a social insurance system financed by employer–employee payroll taxes and central taxes. Statutory insurance covers all residents for hospital and ambulatory care, prescription drugs, and, to a lesser extent, dental and optometry care. Cost-sharing requirements apply to all publicly covered services, although these are waived for patients with any of 30 chronic diseases. Additionally, roughly nine of 10 residents have complementary private insurance that covers most cost-sharing charges under the public system; they either obtain this insurance themselves (usually through employment) or, if they have low income, have it provided by the government. Roughly two-thirds of hospital beds are public or nonprofit, and physicians in these hospitals are salaried; the remaining third are for-profit, with physicians paid fee-for-service. Ambulatory care is provided mostly by self-employed physicians paid fee-for-service. Since 2004, registration with primary care physicians who act as gatekeepers has been encouraged through higher copayments for self-referrals, and roughly 90 percent of the population is now registered. A further primary care reform has been the 2009 introduction of pay-for-performance, with GPs able to earn up to €5,000 for achieving quality targets on prevention, chronic disease management, and drug prescriptions.

Germany: Most German residents receive statutory coverage through one of 180 competing nongovernmental social insurers (or "sickness funds"). The statutory system is financed through employer and employee contributions, which, since 2009, are pooled into a central fund and redistributed among the sickness funds according to a sophisticated risk-adjustment formula. Sickness funds offer a uniform benefit package covering most medical care, including physician and hospital services, prescription drugs, and dental care. The components of this benefit package are determined by the Federal Joint Committee along with representatives from payer and provider organizations. Self-employed, high-income, and civil-service residents may opt for private insurance as an alternative to the statutory insurance system, and roughly 10 percent of the population does so. Complementary private insurance is also purchased to cover amenities and cost-sharing charges under the statutory system, particularly for dental care. Ambulatory doctors mostly operate in solo practices and are paid fee-for-service with varying degrees of bundling. Gatekeeping is optional but is incentivized through cost-sharing arrangements, and often by sickness funds. Roughly half of hospitals are publicly owned and half privately owned. Hospital doctors are generally salaried and are not allowed to treat outpatients except in certain circumstances. For several chronic conditions, a set of disease management programs guided by national evidence-based recommendations has been introduced; these are implemented by sickness funds through contracts with providers.

Italy: Italy operates a universal, tax-funded health system modeled after the British NHS. While the central government determines the required minimum benefit package (which includes hospital and physician services and some prescription drugs) and mostly controls the distribution of tax revenue, responsibility for the organization and delivery of health services is left to the 20 regions. In this role, regions are allowed a large degree of autonomy; most choose to allocate capitated resources and varying degrees of responsibility to local health authorities. Most GPs operate in solo practices, although the central government and the regions have offered incentives to encourage group practice. GP payments flow through a combination of capitation and fee-for-service—sometimes related to performance—and are regulated under a national contract and regional agreements. Ambulatory specialists are generally paid fee-for-service, and hospital-based physicians are generally salaried employees. Depending on the region, public funds are allocated to semicompetitive public and accredited private hospitals. Interregional inequity has been a long-standing policy concern, with the less-affluent southern regions tending to trail the northern regions in the number of public beds and advanced medical equipment.

Netherlands: Health care in the Netherlands is regulated publicly and delivered privately, in a system of "managed competition." All residents are required to purchase a standard health insurance package from a private insurer, covering physician and hospital care and pharmaceuticals. Wage-related contributions are pooled in a central fund and redistributed to the insurers according to a sophisticated risk-adjustment formula. Insurers also charge their own community-rated premiums. Limited cost-sharing applies to secondary care. Most people purchase complementary private insurance for services not covered by the standard benefit package, such as adult dental care and physiotherapy. Longterm care is covered through a separate statutory insurance program. GPs operate mostly in small practices with gate-keeping responsibilities for a registered panel of patients. They are generally self-employed and paid through both fixed capitation rates and fee-for-service. Most specialists are hospital-based, self-employed, and paid on a capped fee-for-service basis that integrates the specialist honorarium costs and the hospital treatment costs. Hospitals are mostly private and nonprofit. One major current initiative is the introduction of bundled payments for the care of chronic conditions in order to promote disease management and integrated care.

New Zealand: New Zealand operates a tax-funded health system that covers hospital and physician care, prescription drugs, and other health services. About one-third of New Zealanders also have some form of private insurance, generally to cover cost-sharing requirements, elective surgery in private hospitals, and specialist outpatient consultations. Most health services are planned, purchased, and provided by District Health Boards—partly elected and partly appointed boards overseeing a geographic area. Hospital care is delivered mostly through public hospitals owned by the District Health Boards. As part of a system reform to strengthen primary care, 95 percent of New Zealanders are enrolled with Primary Health Organizations, which provide low-cost access to networks of self-employed providers funded by capitation and fee-for-service. Most specialists hold joint appointments, working for salaries in public hospitals while maintaining their own private clinics or treating patients in private hospitals. In the last two decades, New Zealand has been particularly successful at restraining prescription drug cost growth through a combination of approaches: comparative- and cost-effectiveness criteria for inclusion in the national benefit package; unified price negotiation through a central purchaser; and public drug subsidies staked to the lowest-priced generic in its therapeutic category.

Norway: Health care spending per capita in Norway is the second-highest in the world, after the U.S., although the country spends less as a percentage of GDP than the OECD median. The government covers hospital care, physician care, and prescription drugs, and partly covers dental care, funding these primarily through general tax revenue. Private insurance plays only a slight role in Norway, and is usually purchased to shorten waiting times. Responsibility for funding and delivering primary care rests with the 430 municipalities (some parts are funded as reimbursement from the national insurance program), while responsibility for hospital and specialist care rests with four regional health authorities. Virtually all residents are registered with a regular GP, who is typically self-employed and paid through a combination of capitation, fee-for-service, and out-of-pocket payments. Hospitals are state-owned, and hospital-based specialists are on salary. Ambulatory specialists are generally self-employed and paid through a combination of annual subsidies and fee-for-service. Current reform efforts focus on improving prevention, integrating care, and strengthening health care in the municipalities.

Sweden: Health care in Sweden is mainly publicly funded and delivered, including hospital and physician services, prescription drugs, and some dental care. Cost-sharing requirements apply to doctor and hospital visits and outpatient prescription drugs. Roughly 5 percent of residents also have access to supplementary private insurance (usually through employment), generally for faster access to care and care in the private sector. County councils have responsibility for both primary and hospital care, with some significant variation between counties in how care is organized. Traditionally, primary care has been delivered by salaried doctors in county-owned health centers, although recent years have seen the growth of private primary care doctors under public contract paid through a combination of capitation and fee-for-service (roughly 25% of GPs). Gatekeeping is voluntary, but patients are encouraged through higher copayments to obtain referrals for specialist visits. Recent reforms have strengthened patient choice of primary care provider and furthered the privatization of primary care providers who compete with public providers, facing the same reimbursement conditions and responsibilities. Almost all hospitals are owned and operated by the county councils, and hospital-based doctors are mostly salaried. Private hospitals specialize mainly in elective surgery.

Switzerland: Switzerland operates a regulated private insurance market, with individuals mandated to purchase a minimum insurance package from among competing nonprofit insurers. Premiums are collected by insurers and then redistributed based upon a risk-adjustment formula. The basic benefit package includes hospital and physician care and prescription drugs. The 26 cantons (similar to U.S. states) have responsibility for planning the health services within their borders and subsidizing hospitals, nursing homes, and home care organizations. Residents generally have free choice of a GP and access without a referral to specialists (unless enrolled with a gatekeeping managed care plan). Some managed care plans operate capitation models, where physicians or physician groups are paid on a capitation basis; otherwise, ambulatory physicians are paid on a fee-for-service schedule negotiated between insurers and providers or their organizations at the canton level. Hospital-based physicians are paid a mix of salary (by mandatory insurance policies) and fee-for-service (by supplemental insurance policies). Hospitals are for the most part publicly owned or publicly subsidized. Recent reforms have established a single set of regulations for both public and private hospitals.

United States: The U.S. does not have a "health system," but rather a variety of private and public institutions and programs that regulate, finance, and deliver care. Employers provide insurance to slightly more than half the population; roughly a quarter of the population is covered through public programs; 5 percent pay for insurance themselves; and 15 percent of the population have no insurance. Benefit packages vary widely in regard to what is covered and the level of cost-sharing. The majority of physicians are in private practice, with payment method varying according to payer. The majority of hospitals are private and nonprofit, although both public and private for-profit hospitals are common. Current reform efforts focus on covering the uninsured, strengthening primary care through the "medical home" model, encouraging integration across providers, and stimulating growth in the "meaningful use" of information technology.

Multinational Comparisons of Health Systems Data Selected Indicators for Thirteen Countries

		Australia	Canada	Denmark	
Population, 2007	Total Population (1,000,000s of People)	21.0	33.0	5.5	
	Percentage of Population Over Age 65	13.1%	13.4%	15.5%	
Spending, 2007	Percentage of GDP Spent on Health Care	8.7% ^a	10.1%	9.8%	
	Health Care Spending per Capita ^d	\$3,137 ^a	\$3,895	\$3,512	
	Average Annual Growth Rate of Real Health Care Spending per Capita, 1997-2007	3.8% ^C	3.8%	3.5%	
	Out-of-Pocket Health Care Spending per Capita ^C	\$571 ^a	\$580	\$485	
	Hospital Spending per Capita ^d	\$1,184 ^a	\$1,070	\$1,554	
	Spending on Pharmaceuticals per Capita ^d	\$431 ^a	\$691	\$301	
	Spending on Services of Nursing and Residential Care Facili- ties per Capita ^d	n/a	\$399	\$417	
Physicians, 2007	Number of Practicing Physicians per 1,000 Population	2.8 ^a	2.2	3.2 ^a	
	Average Annual Number of Physician Visits per Capita	6.3	5.8 ^a	n/a	
Hospital Spending, Utilization, and Capacity, 2007	Number of Acute Care Hospital Beds per 1,000 Population	3.5 ^a	2.7 ^a	2.9	
	Hospital Spending per Discharge ^d	\$7,295 ^a	\$12,163 ^a	\$9,157	
	Hospital Discharge per 1,000 Population	162 ^a	84 ^a	170	
	Average Length of Stay for Acute Care	5.9 ^a	7.3 ^a	3.5 ^b	
Prevention, 2007	Percentage of Children with Measles Immunization	94.0	n/a	89.0	
	Percentage of Population over Age 65 with Influenza Im- munization	77.5% ^a	64.3%	53.7% ^a	
Medical Technology, 2007	Magnetic Resonance Imaging (MRI) Machines per Million Population, 2007	5.1	6.7	n/a	
IT, 2009	Physicians' Use of EMRs(% of Primary Care Physicians) ^e	95%	37%	n/a	
Avoidable Deaths, 2002-03	Mortality Amenable to Health Care ^f (Deaths per 100,000 Population)	71	77	77 105	
	Percentage of Adults Who Report Being Daily Smokers	16.6%	18.4%	25.0% ^b	
Health Risk Factors, 2007	Obesity (BMI>30) Prevalence	21.0%9	15.4%	11.4% ^b	

Source: OECD Health Data 2009 (June 09) unless otherwise noted.

a 2006 b 2005

c_1996-2006

^dAdjusted for differences in the cost of living ^e Source: 2009 Commonwealth Fund International Health Policy Survey of Primary Care Physicians

^f Source: E. Nolte and C. M. McKee, Measuring the Health of Nations: Updating an Earlier Analysis, Health Affairs, January/February 2008, 27(1):58–71 ^g Provided by Ministry of Health

France	Germany	Italy	Netherlands	New Zealand	Norway	Sweden	Switzerland	U.K.	U.S.
61.7	82.3	58.9	16.4	4.2	4.7	9.1	7.6	61.0	301.6
16.4%	20.2%	19.7%	14.6%	12.5%	14.6%	17.4%	16.3%	16.0%	12.6%
11.0%	10.4%	8.7%	9.8%	9.2%	8.9%	9.1%	10.8%	8.4%	16.0%
\$3,601	\$3,588	\$2,686	\$3,837	\$2,510	\$4,763	\$3,323	\$4,417	\$2,992	\$7,290
2.5%	1.7%	2.4%	4.2%	4.5%	2.4%	4.1%	2.3%	4.9%	3.7%
\$246	\$470	\$542	\$213	\$351	\$720	\$528	\$1,350	\$343	\$890
\$1,240	\$1,027	n/a	\$1,310	\$985	\$1,615 ^a	\$1,488	\$1,564	n/a	\$2,309
\$588	\$542	\$518	\$422	\$241	\$381	\$446	\$454	n/a	\$878
\$236	\$275	n/a	\$430	\$225	\$735 ^a	n/a	\$760	n/a	\$435
3.4	3.5	3.7	3.9	2.3	3.9	3.6 ^a	3.9	2.5	2.4
6.3	7.5	7.0 ^b	5.7	4.7	n/a	2.8 ^a	4.0	5.0	3.8 ^a
3.6	5.7	3.1	3.0	n/a	2.9	2.1	3.5	2.6	2.7 ^a
\$4,667	\$4,527	n/a	\$11,988	\$7,312	\$9,131 ^a	\$9,026	\$9,398	n/a	\$17,206 ^a
274	227	139 ^a	109	135	172	165	166	126	126 ^a
5.3	7.8	6.7 ^a	6.6 ^a	4.19	5.0	4.5	7.8	7.2	5.5
87.0	95.4	89.6	95.9	82.0	92.0	96.0	87.0	86.2	92.3
69.0%	56.0%	64.9%	77.0%	63.7%	n/a	n/a	56.0%	73.5%	66.7%
5.7	8.2	18.6	6.6 ^b	8.8	n/a	n/a	14.4	8.2	25.9
68%	72%	94%	99%	97%	97%	94%	n/a	96%	46%
65	90	74	82	96	80	82	n/a	103	110
25.0% ^a	23.2% ^b	22.4%	29.0%	18.1%	22.0%	14.5% ^a	20.4%	21.0%	15.4%
10.5% ^a	13.6% ^b	9.9%	11.2%	26.5%	9%b	10.2%	8.1%	24.0%	34.3% ^a

The Australian Health Care System, 2009

The Commonwealth Fund Edited by Jane Hall, University of Technology, Sydney, and David Squires, The Commonwealth Fund

Who is covered?

Australia's national public health insurance scheme, Medicare, provides universal health coverage for citizens, permanent residents, and visitors from countries that have reciprocal arrangements with Australia.

What is covered?

Services: Medicare provides free or subsidized access to most medical and some optometry services and prescription pharmaceuticals. It also provides free public hospital care, but patients may choose private care in public or private hospitals. Some allied health services are covered if referred by a medical practitioner. The Australian government, together with state governments in most cases, also funds a wide range of other health services, including population health, mental health, limited dental health, rural and indigenous health programs, and health services for war veterans. Private insurance is optional (but encouraged with taxes and subsidies). Private treatment complements the public system and offers choice of doctors for hospital admissions, choice of hospitals (including private hospitals), and timing of procedures; services such as physiotherapy, dental, optometry, and podiatry; and complementary medicine services.

Cost-sharing: Medicare usually reimburses 85 percent to 100 percent of the schedule fee for ambulatory services and 75 percent of the schedule fee for in-hospital services. Doctors' fees are not regulated. Doctors are free to charge above the schedule fee, or they can treat patients for the cost of the subsidy and bill the federal government directly with no patient charge (referred to as bulk billing). Due to falling rates of bulk billing for general practice, an incentive scheme was introduced in 2004, offering additional payment for bulk billing concession card holders (low-income, elderly), children under 16 years of age, and residents of rural and remote areas, and in 2005 the Medicare payment was increased to 100 percent of the schedule fee. In mid-2009, 74 percent of all medical services and 80 percent of general practitioner visits were bulk-billed. Prescription pharmaceuticals covered by the Pharmaceutical Benefits Scheme (PBS) have a standard copayment: AUS\$32.90 (US\$30.26) in general with a reduced rate of AUS\$5.30 (US\$4.88) per item dispensed for individuals with concession cards.

Safety nets: Under the Original Medicare Safety Net, once an annual threshold in gap expenses for out-of-hospital Medicare services has been reached, the Medicare payment is increased to 100 percent (up from 85%) of the Medicare schedule fee for out-of-hospital services for the remainder of the calendar year. (Gap expenses represent the difference between the Medicare benefit and the schedule fee.) In 2009, the threshold was AUS\$383.90 (US\$356.00).

The Extended Medicare Safety Net, introduced in 2004, provides an additional payment for out-of-hospital Medicare services once an annual threshold in out-of-pocket costs is reached. Out-of-pocket costs represent the difference between the Medicare payment and the fee charged by the practitioner. (Out-of-pocket costs are higher than gap expenses if the provider charges above the schedule fee.) Once the out-of-pocket threshold is reached, the patient will receive 80 percent of out-of-pocket costs in addition to the standard Medicare payment for the remainder of the calendar year. (In 2009, the thresholds were AUS\$555.70 [US\$511.00] for individuals with concession cards and low-income families, and AUS\$1,111.60 [US\$1,022.00] for general patients).

Families are able to register together for the Medicare Safety Nets to have their gap expenses and out-of-pocket costs combined to reach the applicable threshold amount sooner.

How is the health system financed?

Australia has a mixed public and private health care system. The core feature is public, taxation-funded health insurance under Medicare, which provides universal access to subsidized medical services and pharmaceuticals, and free hospital treatment as a public patient. Medicare is complemented by a private health system in which private health insurance assists with access to hospital treatment as a private patient and with access to dental services and allied health services. There is a strong reliance on out-of-pocket payments.

National health insurance: Compulsory national health insurance (Medicare) is administered by the Australian government. Medicare is funded mostly from general revenue and in part by a 1.5 percent levy on taxable income, though some low-income individuals are exempt or pay a reduced levy. Individuals and families with higher incomes (AUS\$73,000 [US\$67,151] and AUS\$146,000 [US\$134,299] per annum, respectively) who do not have an appropriate level of private hospital insurance coverage have to pay a Medicare levy surcharge, which is an additional 1 percent of taxable income. In 2007–08, the revenue raised from the Medicare levy (including the surcharge) funded 18 percent of total federal government health expenditure. Other federal, state, and territory government health expenditure is funded from general tax revenue, including the goods and services tax (GST), with some revenue raised from patient fees and other nongovernment sources. In 2007–2008, governments funded 69 percent of total health expenditures, with 43 percent funded by the Australian government and 26 percent funded by state and territory governments. The Department of Veterans' Affairs covers eligible veterans and their dependants by directly purchasing public and private health care services.

Private insurance: Private insurance contributes 7.6 percent of total health expenditure. Since 1999, 30 percent of private health insurance premiums are paid by the Australian government through a rebate. The rebate increases to 35 percent for people aged 65 to 69 years, and to 40 percent for those aged 70 and older. In mid-2009, 44.6 percent of the population had private hospital insurance, and 51.3 percent had General Treatment coverage (which includes ancillary services). Lifetime Health coverage encourages people to take out private hospital coverage early in life, and to maintain their coverage, by offering people who join a health fund before age 31 a relatively lower premium throughout their lives, regardless of their health status. People over the age of 30 face a 2 percent increase in premiums over the base rate for every year they delay joining, although fund members who have retained their private health insurance for more than 10 years are no longer subject to this penalty. Private health insurance is community-rated, and provided by both for-profit and nonprofit insurers.

Out-of-pocket expenditure: Out-of-pocket spending accounted for 16.8 percent of total health expenditure in 2007–08. Most of this expenditure is for medications not covered by the PBS, dental services, aids and appliances, and copayments on medical fees.

How is the delivery system organized?

Physicians: Most medical and allied health practitioners are in private practice and charge a fee for service. GPs play a gatekeeping role, as Medicare will reimburse specialists only the schedule fee payment for referred consultations. Physicians in public hospitals are either salaried (though allowed to have separate private practices and additional fee-for-service income) or paid on a per-session basis for treating public patients. Generally, physicians working in private hospitals are in private practice and do not concurrently hold salaried positions in public hospitals.

Hospitals: The hospital sector includes a mix of public (run by the state and territory governments) and private facilities. Under Medicare the public hospital system provides free hospital care for patients electing to be treated as public patients. Public hospitals are jointly funded by the Australian government and state and territory governments through five-yearly agreements. Public hospitals also receive some revenue from services to private patients. Many salaried specialist doctors in public hospitals are able to treat some private patients in those hospitals, to which they usually contribute a portion of the income earned from the fees. Private hospitals (including free-standing ambulatory day centers) can be either for-profit or nonprofit, and their income is chiefly derived from patients with private health insurance. Private hospitals provide a third of all hospital beds, almost 40 percent of total hospital separations, and slightly less than half of all surgical episodes requiring the use of an operating room. Most emergency surgery is provided in public hospitals, while the majority of elective surgery procedures are provided in private hospitals and day surgeries. Current policy goals include developing a new management structure for public hospitals around local area networks and increasing the federal government's contribution to public hospitals

Pharmaceuticals: Prescription pharmaceuticals are covered by the Australian government's Pharmaceutical Benefits Scheme (PBS), which offers payment for a comprehensive and evolving list of drugs at a negotiated fixed price. Patients have a copayment, set by the federal government. Most prescribed pharmaceuticals are dispensed by private-sector pharmacies. The Repatriation Pharmaceutical Benefits Scheme subsidizes similar access to pharmaceuticals for war veterans and dependents.

Government: The federal government regulates private health insurance, pharmaceuticals, and medical services and has the primary funding and regulatory responsibility for residential elderly care facilities that are government-subsidized. States are charged with operating public hospitals and regulating all hospitals and community-based health services.

What is being done to ensure quality of care?

The Australian Commission on Safety and Quality in Health Care publicly reports on the state of safety and quality, including performance against national standards, while also disseminating knowledge and identifying policy directions. A new set of national indicators covering the quality and safety of clinical care has been developed. It overlaps somewhat with another set of performance indicators developed for the 2009 National Healthcare Agreement between the Australian and all state and territory governments. The Commission is currently undertaking the first stages of a new approach to accreditation, including a set of Australian health standards, a quality improvement framework, expansion of accreditation to services not currently accredited, and national coordination of quality improvement efforts. The Council of Australian Governments in 2008 signed an agreement to create a single national registration and accreditation system for nine health professions: medical practitioners; nurses and midwives; pharmacists; physiotherapists; psychologists; osteopaths; chiropractors; optometrists; and dentists. Provision of government-funded residential elder care is highly regulated, with both provider organizations and their staff being subject to stringent approval processes.

Medicare also offers financial incentives rewarding practices deemed to be working toward meeting the Royal Australian College of General Practitioners Standards for General Practices in the areas of information management, after-hours care, rural care, teaching, and quality prescribing. Attention and resources are currently being directed toward addressing the gap in health outcomes for the indigenous population.

What is being done to improve efficiency?

The Medical Services Advisory Committee assesses new medical therapies for inclusion in the Medical Benefits Schedule, based on safety, cost-effectiveness and comparative effectiveness. The Pharmaceutical Benefits Advisory Committee assesses new prescription drugs on the same basis before they can be included in the PBS. The Australian government's Department of Health and Ageing then uses these assessments to negotiate prices with manufacturers. The government also offers education and incentives to general practices to encourage effective use of medicines.

The Australian government has prioritized improvement of efficiency in elder care. The recently established Ministerial Conference on Ageing—designed as a collaboration between different levels of government—is tasked with initiating,

developing, and monitoring policy reform that works toward improving elder care planning. The Australian government also plans to work with the state and territory governments to improve planning and accountability of Home and Community Care programs; it hopes to standardize the processes for entry and assessment, planning, financial reporting, quality assurance, and information management by 2011. The National Health and Hospitals Reform Commission has recommended that the responsibility for elder care be transferred to the Australian government, and that new approaches to funding be developed that are more flexible around patient needs and priorities.

How are costs controlled?

Public hospitals are owned and operated by state and territory governments, although costs are shared with the Australian government. State and territory governments set annual budgets for public hospitals, with funding on the basis of case mix (proportion of diagnosis-related groups) to drive efficiency in public hospitals. Medical services and pharmaceuticals are subject to national cost controls, and any expansions in the scope of services are evidence-driven. In addition, 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 cost-controlling methods include: controlling the growth in cost of some large-volume diagnostic services (pathology and radiology) through industry agreements with the relevant medical specialty; controlling access to specialist services through "gatekeepers" such as general practitioners who perform an important role in promoting continuity and a "medical home"; prioritizing access to certain services according to clinical need; and limiting the number of providers that are eligible to access Medicare benefits for some high-tech services. Effective prevention and better management of chronic disease have been proposed as strategies to reduce future health care costs.

What recent system innovations and reforms have been introduced?

The new Australian labor government initiated several reviews of the health system, most importantly by the Health and Hospitals Reform Commission and the National Preventive Health Taskforce, and developed a Primary Health Care Strategy, all of which have recently produced reports. Among their key recommendations are a strengthening of primary care through the development of facilities that provide multidisciplinary care and extended hours, enrollment in "health care homes" of people with chronic conditions and young families, and better integration with elder care and non-acute community services. Proposed funding changes would move all primary-care funding responsibilities to the Australian government and encourage the development of alternatives to fee-for-service. The Health and Hospitals Reform Commission has proposed immediate changes in the Commonwealth–state funding agreements to an activitybased funding model, with clear performance targets. The Commission has also proposed consideration of a change in Medicare to a managed competition model with both private and public insurers. Both the Commission and the National Preventive Health Care Strategy recommend the formation of a National Preventive Health Agency.

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The Canadian Health Care System, 2009

THE COMMONWEALTH FUND EDITED BY DIANE WATSON, NEW SOUTH WALES BUREAU OF HEALTH INFORMATION

Who is covered?

Canada's publicly funded insurance coverage, often referred to as Medicare, provides universal coverage for physician and hospital services. Coverage for other health services is generally provided through a mix of public programs and supplementary private insurance.

What is covered?

Services: In order to qualify for federal financial contributions, provincial and territorial health insurance plans must provide first-dollar coverage of medically necessary physician and hospital services for all eligible residents. In addition to providing universal coverage for physician and hospital services, provincial and territorial governments provide varying levels of supplementary benefits for groups such as children, senior citizens, and social assistance recipients. Supplementary benefits include services such as prescription drug coverage, vision care, dental care, home care, aids to independent living, and ambulance services. The federal government provides certain health care benefits for First Nations and Inuit, members of the Royal Canadian Mounted Police and the Canadian Forces, veterans, refugee claimants, and inmates in federal penitentiaries.

Cost-sharing: There is no cost-sharing for publicly insured physician and hospital services. However, there are out-of-pocket payments for supplementary health services not funded by public programs or private insurance. Out-of-pocket payments by private households represent about 15 percent of total national health expenditures.

How is the health system financed?

Publicly funded health care: Public health insurance plans administered by the provinces and territories are funded by general taxation. Federal transfers to provinces and territories in support of health care are tied to population, and are conditional on provincial and territorial health insurance plans' meeting the requirements set out in the Canada Health Act. Public funding has accounted for approximately 70 percent of total health expenditure over the last decade.

Privately funded health care: Roughly two-thirds of Canadians have supplementary private insurance coverage, many through employment-based group plans, which cover services such as vision and dental care, prescription drugs, rehabilitation services, home care, and private rooms in hospitals. Duplicative private insurance for publicly funded physician and hospital services is not available. Private health expenditures (payments through private insurance and out-of-pocket payments) represent approximately 30 percent of total health expenditures.

How is the delivery system organized?

Provinces/territories: Provinces and territories have primary responsibility for the organization and delivery of health services, including the education of health care providers. Provincial and territorial ministries of health negotiate physician fee schedules with provincial and territorial medical associations. Many provinces and territories fund their own established regional health authorities that plan and deliver public health care services on a local basis. Some jurisdictions have consolidated the number of authorities in recent years.

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Physicians: Most physicians have private practices and are remunerated on a fee-for-service basis, although an increasing number receive alternative forms of public payment such as capitation, salary, and blended funding. In 2005–06, about 21 percent of total clinical payments to physicians were made through these types of arrangements (ranging from 12% in Alberta to 42% in Nova Scotia to 96% in the Northwest Territories). Physicians are not allowed to charge patients more than what they receive under the fee schedule negotiated with the provincial or territorial health insurance plan. In some provinces, physicians can opt out of the public plan if they wish to charge their own rates for insured health services. Primary-care gatekeeping is not required, but there are provider incentives to discourage self-referrals. Hospital-based physicians generally are not hospital employees and receive fee-for-service compensation. Physicians in community clinics are salaried.

Nurses and other health professionals: Most nurses are employed either in hospitals or by community health care organizations, including home care and public health services. Nurses are generally paid salaries negotiated between their unions and their employers. Dentists, optometrists, occupational therapists, physiotherapists, psychologists, pharmacists, and other health professionals are employed by hospitals or in private practice.

Hospitals: Ownership of acute hospitals that provide medically necessary services varies across jurisdictions in Canada. In general, these facilities are almost all not-for-profit and are owned by religious orders, municipalities or municipal corporations, universities, and governments. They generally operate under annual, global budgets, negotiated with the provincial or territorial ministry of health or regional health authority.

What is being done to improve quality of care?

Over the past decade, the federal government has increasingly earmarked funds to support innovation and stimulate systemwide improvements in quality. Examples include the Patient Wait Times Guarantee Trust (CAD\$612 million [US\$575 million]), the Canadian Partnership Against Cancer (CAD\$260 million [US\$244 million] from 2006 to 2011), the Canadian Patient Safety Institute (up to CAD\$8 million [US\$7.5 million] per year since 2003), and the establishment of the Mental Health Commission of Canada (see System Innovation Section).

In order to improve access, in 2005, all governments established a set of evidence-based wait-time benchmarks in priority clinical areas (i.e., cardiac, cancer care, joint replacement, and sight restoration). Seven provinces have established targets to meet the wait-time benchmarks. In 2007, all jurisdictions committed to establishing a guarantee in at least one clinical area by 2010.

All provinces and territories now report on wait times. Provinces have made considerable progress with efforts to manage and reduce wait times, and many now meet wait-time benchmarks for at least 75 percent of patients. Generally, when available, trend data show waits for care are decreasing in the areas of joint replacement, sight restoration, cardiac surgery, and diagnostic imaging scans.

The federally funded Canadian Patient Safety Institute promotes best practices and develops strategies, standards, and tools. To enhance the efficacy of drug use, the Canadian Optimal Medication Prescribing and Utilization Service (COMPUS) identifies and promotes optimal drug therapies. More specifically, it supports safe and appropriate prescription and use of medicines through information for health care providers and consumers. COMPUS is one of three programs operated by the Canadian Agency for Drugs and Technologies in Health and is funded by Health Canada.

From 2000 to 2006, the Primary Care Transition Fund invested CAD\$800 million (US\$751 million) to help cover the transitional costs of implementing large-scale primary health care reform initiatives. Most of the funding was allocated to the provinces and territories. The Fund aimed to improve access, health promotion and prevention, and integration and

coordination, as well as to encourage 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 proliferation of payment methods other than fee-for-service; and expanded primary care education for physicians and nurses.

The Canadian Institute for Health Information reports data and analysis on the health care system and the health of Canadians. The Health Council of Canada assesses progress in improving the quality, effectiveness, and sustainability of the health care system.

Many quality-improvement initiatives take place directly at the provincial and territorial level, with many jurisdictions having established quality councils to drive change, as well as to monitor and publicly report on the progress of renewal.

What is being done to improve efficiency?

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 (EHRs) and other electronic health information systems (e.g., telehealth and public health surveillance). All provincial and territorial governments have agreed on a common EHR architecture, and projects are under way in every jurisdiction to develop and implement EHR components. As of March 2009, 17 percent of Canadians have an EHR—Canada Health Infoway's goal is to have 50 percent of Canadians with EHRs by 2010 and 100 percent by 2016.

The National Pharmaceutical Strategy, established in 2004, addresses the challenges and opportunities across the drug life cycle using an integrated, collaborative, multi-pronged approach to pharmaceuticals within the health care system. It was intended to address nationwide concerns about affordability (and safety) of prescription medications, in part through implementation of a catastrophic drug program. A number of goals have been achieved so far, including the expansion of the Common Drug Review and the design of the Drug Safety and Effectiveness Network. Progress continues to be made in ways that respect areas of federal as well as provincial and territorial responsibilities.

The Canadian Agency for Drugs and Technologies in Health provides advice to all governments on the clinical and economic viability of drugs and other health technologies, informing decision-making on reimbursement and optimal use. While Health Canada evaluates the benefit-risk profile of a drug to determine whether it can be sold in Canada, the Common Drug Review, housed at the Agency for Drugs and Technologies, assesses the relative value of the therapy within the health care system. The CDR provides participating drug plans in Canada with consistent evidence-based recommendations on the demonstrated effectiveness and value of new therapies for Canadians.

How are costs controlled?

In 2008, public- and private-sector spending on health care in Canada was an estimated CAD\$172 billion (US\$162 billion) or CAD\$5,170 per person (US\$4,855). As a share of GDP, it continued to grow from an estimated 10.6 percent in 2007 to 10.7 percent in 2008 (source: Canadian Institute for Health Information).

Cost control is attained principally through single-payer purchasing power, and increases in real spending principally reflect government investment decisions and budgetary overruns. Cost control measures include mandatory annual global budgets for hospitals and health regions, negotiated fee schedules for health care providers, drug formularies, and reviews of the diffusion of technology. Many governments are developing pricing and purchasing strategies to obtain better drug prices.

What system innovations have been introduced?

In January 2009, a new federally funded Drug Safety and Effectiveness Network (DSEN) was announced to generate and exchange new, post-market ("real world") evidence regarding the safety and effectiveness of pharmaceuticals. The DSEN will respond to decision-makers' needs for information and increase capacity to undertake high-quality research in this area. Newly generated evidence will inform decision-making about the regulation, public reimbursement, and safe and optimal prescription and use of drugs.

Elements of the new Food and Drugs Act and Canadian Consumer Product Safety Act relevant to prescription medicines are pending. In the area of pharmaceuticals, there are also a number of purchasing and pricing initiatives to contain inflationary spending (e.g., Ontario's Transparent Drug System for Patients Act).

Canada has ramped up investments in data to monitor and publicly report on health system performance. For example, results of the new *National Survey of the Work and Health of Nurses* offer insights into practice conditions, physical and mental well-being, workplace challenges, and views on quality of care. Results of the new *Canadian Survey of Experiences with Primary Health Care* offer insights into interprovincial differences regarding access, experiences, and views on quality, as well as the ways in which management of primary care impacts the use of specialists, emergency departments, and hospitals.

The Mental Health Commission of Canada has undertaken a number of initiates such as an anti-stigma campaign, a mental health strategy, and a knowledge exchange center to focus attention on mental health issues and to work to improve the health and social outcomes of people living with mental illness.

The Danish Health Care System, 2009

Karsten Vrangbaek Director of Research, Danish Institute of Governmental Research

Who is covered?

Coverage is universal and compulsory. All those registered as residents in Denmark are entitled to health care that is largely free at the point of use.

What is covered?

Services: The publicly financed health system covers all primary and specialist (hospital) services based on medical assessment of need.

Cost-sharing: There is no cost-sharing for hospital and primary care services. There are some cost-sharing arrangements for other publicly covered services. Cost-sharing applies to dental care for those aged 18 and over (coinsurance of 35% to 60% of the cost of treatment), outpatient drugs, and corrective lenses. An individual's annual outpatient drug expenditure is reimbursed at the following levels: below DKK465 (US\$90)—no reimbursement (50% reimbursement for children); DKK465–1125 (US\$90–217)—50 percent reimbursement; DKK1,125–2,645 (US\$217–511)—75 percent reimbursement; above DKK2,645 (US\$511)—85 percent reimbursement (MISSOC 2007). In 2005, out-of-pocket payments, including cost-sharing, accounted for about 14 percent of total health expenditure (World Health Organization 2007).

Safety nets: Chronically ill patients with a permanent high use of drugs can apply for full reimbursement of drug expenditure above an annual out-of-pocket ceiling of DKK3410 (US\$658). People with very low income and those who are dying can also apply for financial assistance, and the reimbursement rate may be increased for some very expensive drugs. Complementary private health insurance provided by a not-for-profit organization reimburses cost-sharing for pharmaceuticals, dental care, physiotherapy, and corrective lenses. In 1999 it covered about 30 percent of the population. Coverage is distributed relatively evenly across social classes.

How is the health system financed?

Publicly financed health care: 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 tax set at 8 percent of taxable income and earmarked for health. The new proportionate earmarked tax replaces a mixture of progressive central income taxes and proportionate regional income and property taxes. The central government allocates this revenue to five regions (80%) and 98 municipalities (20%) using a risk-adjusted capitation formula and some activity-based payment. Public expenditure accounted for around 82 percent of total health expenditure in 2005 (World Health Organization, 2007).

Private health insurance: Complementary private health insurance has been common in the Danish health system since the 1970s. Complementary insurance has traditionally been used to cover copayments in the statutory system (mostly for pharmaceuticals and dental care) and for services not fully covered by the state (some physiotherapy, etc.). The not-for-profit organization Danmark has been the sole provider of such complementary insurance in the past. It covered around 2 million Danes in 2007 (36% of the population).

The past decade has seen a rapid growth in the number of people buying supplementary private health insurance. In 2002 there were around 130,000 policies taken out, while the figure had grown to almost 1 million by 2008. These plans provide access to private treatment facilities. In addition, 2.2 million policies provide a lump sum in case of critical illness. This type of insurance is typically related to pension plans. A tax deduction for employers has fuelled this market. The liberal/conservative government introduced this policy in 2002 as a way to encourage more private involvement in Danish health care.

How is the delivery system organized?

Government: The five regions are responsible for providing hospital care, and own and run hospitals and prenatal care centers. The regions also finance general and specialist practice, physiotherapy, dentistry, 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 mentally disabled people), school health services, home help, and the treatment of alcoholics and drug addicts. Professionals involved in delivering these services are paid a salary.

Physicians: Self-employed general practitioners act as gatekeepers to secondary care and are paid through a combination of capitation (30%) and fee-for-service. Hospital physicians are employed by the regions and paid a salary. Non–hospital-based specialists are paid on a fee-for-service basis.

Hospitals: Almost all hospitals are publicly owned (99% of hospital beds are public). They are paid partly via fixed budgets determined through soft contracts with the regions and partly on a fee-for-service basis.

What is being done to ensure quality of care?

A comprehensive standards-based program for assessing quality is currently being implemented. The program is systemic in scope, aiming to incorporate all health care delivery organizations and including both organizational and clinical standards. Organizations are assessed on their ability to improve standards in processes and outcomes. The core of the assessment 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, allowing comparison over time and between organizations. The external evaluation begins with the self-assessment and goes on to assess status for quality development. Some data on quality is already being published on the Internet (www.sundhedskvalitet.dk) to facilitate patient choice of hospital and encourage hospitals to raise standards. Free choice of public hospital and the extension of choice to private facilities at the expense of the home region if waiting times exceed one month are seen as ways to encourage public hospitals to deliver better-quality service.

What is being done to improve efficiency?

In the last few years, many national and regional initiatives have aimed to improve efficiency, with a particular focus on hospitals. For example, Denmark has been at the forefront of efforts to reduce average lengths of stay and to shift care from inpatient to outpatient settings. The administrative reforms of 2007 aimed to enhance the coordination of service delivery and to derive benefit from economies of scale by centralizing some functions and enabling the closure of small hospitals. The reforms lowered the number of regions from 14 to five, and the number of municipalities from 275 to 98. The introduction of a Danish DRG (diagnosis-related groups) system in the late 1990s has facilitated various partially activity-based payment schemes (for example, for patients crossing county borders) and benchmarking exercises. The national Ministry of Health also publishes regular hospital productivity rankings.

How are costs controlled?

Annual negotiations between the central government and the regions and municipalities result in agreement on the economic framework for the health sector, including levels of taxation and expenditure. The negotiations contribute to control of public spending on health by instituting a national budget cap for the health sector. They also form the basis for resource allocation from the central government. At the regional and municipal level, various management tools are used to control expenditure, such as contracts and agreements between hospitals and the regions and ongoing monitoring of expenditure development. The introduction of a one-month general waiting time guarantee (for all services) and predefined treatment "packages" with specified short waiting times between different parts of the treatment path for cancers and other life-threatening diseases has challenged the regional control over 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 for controlling pharmaceutical expenditure include generic substitution by doctors and pharmacists, prescribing guidelines, and systematic assessment of prescribing behavior. Health technology assessment (HTA) is now an integral part of the health system, with assessments carried out at central, regional, and local levels.

What recent system innovations and reforms have been introduced?

The structural reform of 2007 sought to centralize the administration of hospital care, and merged the previous 15 county units into five regions. The five regions have since developed plans for reorganizing their hospital systems, including plans for major infrastructure investments supported by a DKK25 billion (US\$5.0 billion) investment grant from the national government. The total level of new investments will be up to DKK40 billion (US\$8.0 billion).

In 2007, the Danish government, regions, and municipalities committed to developing and implementing national care pathways for all types of cancer based upon national clinical guidelines, with the aim of ensuring that all cancer patients receive fast-tracked care through all stages of treatment. At the end of 2008, pathways for 34 cancer types had been finalized and implemented, covering almost all cancer patients. A national agency monitors the pathways and the speed at which patients are diagnosed and treated.

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The English Health Care System, 2009

SEÁN BOYLE. SENIOR RESEARCH FELLOW LSE HEALTH AND SOCIAL CARE, LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

Who is covered?

Coverage is universal. All those "ordinarily resident" in England are entitled to health care that is largely free at the point of use.

What is covered?

Services: The National Health Service (NHS) covers preventive services; inpatient and outpatient (ambulatory) hospital (specialist) care; physician (general practitioner) services; inpatient and outpatient drugs; dental care; mental health care; learning disabilities; and rehabilitation.

Cost-sharing: There are relatively few cost-sharing arrangements for publicly covered services. Patients prescribed drugs under the NHS by general practitioners, dentists, and other independent prescribers are charged a fixed rate (£7.20 per prescription in England [US\$11.50]), but about 89 percent of prescriptions are exempt from charges (Information Centre 2008). NHS dentistry services are subject to charges capped at £198 per course of treatment (US\$316), although for historic reasons there is difficulty in accessing NHS dental services in some areas. Increasing access to NHS dentistry is currently a national priority for the NHS. Out-of-pocket payments, including both cost-sharing and expenditure paid directly by private households, accounted for 11 percent of total national health expenditures in 2007.

Safety nets: Most costs are met from the public purse. There are measures in place to alleviate charges for NHS services where these may have an undue impact on certain patient groups. The following are exempt from fixed prescription drug rates: children under the age of 16 years and those in full-time education aged 16, 17, and 18; people aged 60 years or over; people with low income; pregnant women and those who have had a baby in the past 12 months; and people with certain medical conditions and disabilities. There are discounts through prepayment certificates for people who use large quantities of prescription drugs. Transport costs to and from provider sites are also covered for people with low income.

How is the health system financed?

National Health Service (NHS): The NHS accounts for 87 percent of total health expenditure. It is funded by general taxation (76%), national insurance contributions (18%), user charges (3%), and other sources of income (3%) (Department of Health, 2006). Apart from the income the NHS receives for the provision of prescription drugs and dentistry services to the general population, there is some income from other fees and charges, particularly from private patients who use NHS services.

Private health insurance: A mix of for-profit and not-for-profit insurers provide supplementary private health insurance. Private insurance offers choice of specialists, faster access to elective surgery, and higher standards of comfort and privacy than the NHS. In 2006, it covered 12 percent of the population and accounted for 1 percent of total health expenditure.

Other: People also pay directly out of pocket for some services, e.g., care in the private sector. Direct out-of-pocket payments account for more than 90 percent of total private expenditure on health.

How is the delivery system organized?

Physicians: General practitioners (GPs) are usually the first point of contact for patients and act as gatekeepers for access to secondary care services. Most GPs operate privately under an annual national contract, and are paid directly by primary care trusts (PCTs) through a combination of methods: salary, capitation and fee-for-service. The 2004 GP contract introduced a range of local contracting possibilities while also providing substantial financial incentives tied to achievement of clinical and other performance targets. Some private providers of GP services set their own fee-for-service rates but are not generally reimbursed by the public system. Specialists work mainly in NHS hospitals but may supplement their salary by treating private patients.

Dentists: Primary care dental services are delivered in England through a system of local commissioning introduced in 2006. PCTs contract with individual dentists or dental practices for an agreed level of dental services per annum. Some dentists are employed directly by primary care trusts on a salaried basis. Most dentists provide private as well as NHS care. They set their own fees for private services, or contract with a private insurance company. Private dental care is not generally reimbursed by the public system.

Hospitals: These are organized as NHS trusts directly responsible to the Department of Health. Since 2004, approximately one-half of NHS trusts have become foundation trusts established as semiautonomous, self-governing public trusts. Both types contract with PCTs for the provision of services to local populations. Public funds have always been used to purchase some care from the private sector but the level has grown in recent years; since 2003 some routine elective surgery and diagnostics have been procured for NHS patients from purpose-built treatment centers owned and staffed by private-sector providers.

Government: Responsibility for health legislation and general policy matters rests with Parliament. The NHS is administered through 10 regional strategic health authorities who are accountable to the Department of Health. Locally, services are provided through a series of contracts between commissioners of health care services (the 152 PCTs) and providers (hospital trusts, GPs, independent providers). PCTs control around 80 percent of the NHS budget (allocated to them based on a risk-adjusted capitation formula) and are responsible for ensuring the provision of primary and community services for their local populations.

Private insurance funds: Private insurers provide their subscribers with health care at a range of private and NHS hospitals. Patients generally can choose from a number of health care providers.

What is being done to ensure quality of care?

Quality of care is a key focus of the NHS. One objective of the Department of Health in 2007 was to enhance the quality and safety of health and social care services. Quality issues are addressed in a range of ways.

Regulatory bodies: In April 2009, the Care Quality Commission (CQC) 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 CQC, which also assesses provider and commissioner performance using nationally agreed-upon indicators of quality with the Department of Health, investigates individual providers when an issue has been raised, and considers key provision areas in order to recommend best practice.

Targets: Targets have been set by the government for a range of variables that reflect the quality of care delivered. Some of these targets are monitored by the CQC; others are monitored on a regular basis either by the Department of Health

or the regional strategic health authorities. In addition, local providers select measures of quality improvement against which they can benchmark their services.

National Service Frameworks: Since 1998, the Department of Health has been developing the National Service Frameworks, intended to improve particular areas of care (for example, coronary, cancer, mental health, diabetes). These guidelines set national standards and identify key interventions for defined services and care groups. They are among a range of measures used to raise quality and decrease variations in service.

Quality Accounts: From April 2010, all providers will produce annual "Quality Accounts" reporting on the services they provide, documenting safety, effectiveness, and patient experience.

Quality contracts: The Commissioning for Quality and Innovation (CQUIN) payment framework was introduced in April 2009. It requires contracts between commissioners and acute-care, mental health, ambulance, and community service providers to include clauses making a proportion of income conditional on quality and innovation.

Quality and Outcomes Framework: This framework measures the quality of care delivered by GPs. It was introduced as part of the new GP contract in 2004, which provided incentives for improving quality, and has been operating since 2005. General practices are awarded points that determine payments based on the practice's efficiency, patient experience, extra services offered (such as child health and maternity), and degree of success in managing common chronic diseases like asthma and diabetes.

What is being done to improve efficiency?

Efficiency has always been a key point of focus of the NHS. The NHS seeks to improve efficiency in a range of ways.

High-level efficiency targets: The government achieved efficiency gains of £7.9 billion (US\$12.6 billion) between 2004 and 2008 through a range of policies known as the Gershon Efficiency Programme. These included increasing frontline productivity, centralizing procurement to obtain more cost-effective deals, reducing the costs of both NHS providers and central administration, and increasing the efficiency of social care provision. Further efficiency gains of £10.5 billion (US\$16.8 billion) are expected between 2008 and 2011 through central and local actions. Local NHS organizations are monitored on efficiency savings targets (Department of Health, 2009).

Payment by Results: A DRG-like, activity-based funding system known as Payment by Results (PbR) has been introduced for acute-care hospitals, with the aim of extending across the whole system of health care providers. PbR relates payment to the quantity and case mix of activity undertaken, and has resulted in an increased focus on and understanding of the structure of costs.

Benchmarking: NHS organizations are benchmarked against the performance of their peers on a number of activity measures, including day case rates and lengths of stay for common operative procedures, readmission rates, and NHS reference costs (costs of standard procedures known as Healthcare Resource Groups).

Institute for Innovation and Improvement: The Department of Health supports the development of better and more efficient ways of providing health care through the use of semiautonomous bodies such as the Institute for Innovation and Improvement. The Institute helps the NHS to develop new ways of dealing with the introduction of new technology and changes to working practices, and helps to spread these throughout the NHS.

How are costs controlled?

The government sets the budget for the NHS on a three-year cycle. To control utilization and costs, the government sets a capped overall budget for PCTs. NHS trusts and PCTs are expected to achieve financial balance each year. The centralized administrative system tends to result in lower overhead costs. Other mechanisms that contribute to improved value for money include arrangements for the systematic appraisal of new technologies through the National Institute for Health and Clinical Excellence (NICE).

What system innovations have been introduced?

Individual budgets: Initially on a pilot basis, financial resources have been made available directly to individuals with social care needs, e.g., older people and people with mental health issues, who are then able to choose how that money should be spent. The program is being expanded and will include individual health budgets for some groups of patients.

Patient-reported outcome measures: The NHS is introducing standard contracts that require providers to report on patient outcome measures (PROMs) of health status and health-related quality of life before and after intervention, as evaluated by patients themselves.

Payments for quality: The CQUIN payment framework requires that contracts between commissioners and providers include clauses making a proportion of income conditional on quality and innovation.

Patient choice: NHS patients who require elective care interventions can choose from a wide range of public- and private-sector providers.

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ISABELLE DURAND-ZALESKI PROFESSOR OF MEDICINE, UNIVERSITY OF PARIS XII

Who is covered?

Coverage is universal; all residents are entitled to publicly financed health care. Following the introduction of *Couverture Maladie Universelle* (CMU) in 2000, the state finances coverage for residents not eligible for coverage by the general public health insurance scheme (0.4% of the population). The state also finances health services for illegal residents (*L'Aide Médicale d'Etat* [AME]).

What is covered?

Services: The public health insurance scheme covers hospital care, ambulatory care, and prescription drugs. It provides minimal coverage of outpatient eye and dental care. Preventive services (immunizations) are covered to a certain extent, usually for defined target populations.

Cost-sharing: Cost-sharing is widely applied to publicly financed health services and drugs, and takes three forms: coinsurance, copayments, and extra billing.

Coinsurance rates are applied to all health services and drugs listed in the publicly financed benefits package. Coinsurance rates vary depending on:

- the type of care—hospital care (20% plus a daily copayment of €16–€20 [US\$24–US\$29)], doctor visits (30%), dental care (30%)
- the type of patient—patients suffering from chronic conditions and poorer patients are exempt from cost-sharing, though only if they are treated with services and supplies listed in the benefit package, which is published and updated by the HAS
- the effectiveness of the prescription drug—0 percent for highly effective drugs, 35 percent, 65 percent, and 100 percent for drugs of limited therapeutic value
- whether or not patients comply with the recently implemented gatekeeping system (*médecin traitant*)—visits to the gatekeeping GP are subject to a 30 percent coinsurance rate, while visits to other GPs are subject to a coinsurance rate up to 50 percent; the difference between the two rates cannot be reimbursed by complementary private health insurance (see below)

In addition to cost-sharing through coinsurance, which can be fully reimbursed by complementary private health insurance, the following non-reimbursable copayments apply, up to an annual ceiling of \in 50 (US\$74): \in 1.00 per doctor visit (US\$1.49), \in 0.50 (US\$0.74) per prescription drug, \in 2.00 (US\$2.98) per ambulance and \in 18.00 (US\$27.00) for expensive hospital treatment.

Reimbursement by the publicly financed health insurance scheme is based on a reference price. Doctors and dentists may charge above this reference price (extra billing) based on their level of professional experience. The difference between the reference price and the extra billed amount must be paid by the patient and may or may not be covered by complementary

private health insurance, depending on the contract. Out-of-pocket payments, including both cost-sharing and expenditure paid directly by private households, accounted for 7 percent of total national health expenditures in 2007.

Safety nets: Exemptions from coinsurance apply to people with any of 30 chronic illnesses, people with low income, and people receiving invalidity and work-injury benefits. Hospital coinsurance applies only for the first 31 days in hospital, and some surgical interventions are exempt. Children and people with low income are exempt from paying non-reimbursable copayments. Complementary private health insurance covers statutory cost-sharing (the share of health care costs not reimbursed by the health insurance scheme). It applies only to health services and prescription drugs listed in the publicly financed benefit package. Most people obtain complementary private coverage through their employers. Since 2000, people with low income are entitled to free or subsidized complementary private coverage (CMU-C) and free eye and dental care; in addition, they cannot be extra-billed by doctors. Complementary private health insurance covers over 92 percent of the population. In 2007, out-of-pocket payments and private health insurance accounted for 8.5 percent and 13.6 percent of total health expenditure, respectively (comptes nationaux de la santé en 2007).

How is the health system financed?

Publicly financed health care: The public health insurance scheme accounted for 76.6% of total health expenditure in 2008. The public health insurance scheme is financed by employer and employee payroll taxes (43%); a national income tax (*contribution sociale generalisée*, 33%), created in 1990 to broaden the revenue base for social security; revenue from taxes levied on tobacco and alcohol (8%); state subsidies (2%); and transfers from other branches of social security (8%). There is no ceiling on employer (12.8%) and employee (0.75%) contributions, which are collected by a national social security agency. Coverage for those not eligible for the public scheme or complementary private coverage is mainly financed by the state through an earmarked tax on tobacco and alcohol and a 5.9 percent tax on the revenue of complementary private health insurers.

Government: The public health insurance 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 public health insurance scheme for the following year (ONDAM^a). In 2004, a new law created two associations, the National Union of Health Insurance Funds (UNCAM^b) and the National Union of Voluntary Health Insurers (UNOCAM^c), incorporating all public health insurance funds and private health insurers, respectively. The law also gave the public health insurance funds responsibility for defining the benefits package and setting price and cost-sharing levels.

Private health insurance: Complementary private health insurance reimburses statutory cost-sharing. It is provided mainly by not-for-profit, employment-based mutual associations (*mutuelles*), which cover 87 percent to 90 percent of the population. It covers only those services that are also covered by the public health insurance scheme. There is some evidence to show that the quality of coverage purchased (in other words, the extent of reimbursement) varies by income group. Since 2000, people with low income (including unemployed people and people receiving single-parent subsidies) and their dependents have been entitled to complementary private coverage at little to no cost (CMU-C). CMU-C covers about 5 million people with vouchers that can be used to obtain coverage from a variety of insurers, although most choose to obtain it from the public health insurance scheme. More recently, for-profit commercial insurers have begun offering coverage for services not included in the public benefits package, such as psychotherapy or acupuncture.

^a Objectif National de Dépenses d'Assurance Maladie.

^b Union Nationale des Caisses d'Assurance Maladie.

^c Union Nationale des Organismes Complémentaires d'Assurance Maladie.

How is the delivery system organized?

Health insurance funds: Public health insurance funds are statutory entities with membership based on occupation, so there is no competition between them. There is limited competition among mutual benefit societies providing complementary private health insurance, but as they are employment-based, employees for the most part have a choice of only one or two *mutuelles*. There is no system of risk adjustment among *mutuelles*, even though there is inadvertent risk selection based on occupation.

Physicians: The 2004 health financing reform law introduced a voluntary gatekeeping system for adults (aged 16 years and over) known as *médecin traitant*. There are strong financial incentives for patients to encourage gatekeeping, with higher copayments for visits and prescriptions without a referral from the gatekeeper. Physicians are self-employed and paid on a fee-for-service basis. The cost per visit is slightly higher for specialists (\in 23 [US\$34]) than for GPs (\notin 22 [US\$33]) and is based on negotiation between the government, the public insurance scheme, and the medical unions. Depending on the duration of their medical training, physicians may charge above this level. There is no limit to what physicians may charge, but medical associations recommend restrained fee levels. Hospital physicians in public or not-for-profit facilities are salaried.

The 2009 Hospital, Patients, Health, Territories Reform Act attempted to improve access to care in deprived areas by creating negative incentives for physicians who set up practice in areas with current oversupply. Opposition from the physician unions has led to the withdrawal of the measure; however, nurses' unions have agreed to a similar arrangement with the MoH.

Hospitals: Two-thirds of hospital beds are in government-owned or not-for-profit hospitals. The remainder are in private for-profit clinics. All university hospitals are public. Since 1968, hospital physicians have been permitted to see private patients in public hospitals, an anachronism originally intended to attract the most prestigious doctors to public hospitals, and one that has survived countless attempts to abolish it. As of 2008, all hospitals and clinics are reimbursed via the DRG-like prospective payment system (the original DRG scheme was not to be fully implemented until 2012). Public and not-for-profit hospitals benefit from additional non–activity-based grants to compensate them for research and teaching (up to an additional 13% of the budget) and for providing emergency services and organ harvesting and transplantation (on average, an additional 10%–11% of a hospital's budget).

What is being done to ensure quality of care?

An accreditation system is used to monitor the quality of care in hospitals and clinics. The quality of ambulatory care rests on a system of professional practice appraisal. Both systems are mandatory and are overseen by the national health authority (Haute Autorité de Santé, or HAS), created in 2004. 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). 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. For physicians in ambulatory practice, the audit is 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 undertakes comparative effectiveness review of all new drugs, devices, and medical procedures before their inclusion in the public benefit package. It also publishes guidelines on care and defines best-care standards.

What is being done to improve efficiency?

Improving efficiency is the major challenge facing the public health insurance funds, which are currently working on structural and procedural changes. Structural changes involve the creation of a national computerized system of medical records to limit duplication of tests, overprescribing, and adverse drug side effects, and to facilitate the implementation of

prospective payment for all hospitals and clinics from 2008. Procedural changes on the supply side focus mainly on two issues: the reorganization of inputs (for example, by transferring some physician tasks to nurses or other professionals) and improved coordination of care (particularly for patients with chronic illnesses). On the demand side, the main health insurance scheme is experimenting with patient education and hotlines. As of 2008, it also transfers some drugs to over-the-counter status. The Hospital, Patients, Health, Territories Reform Act voted on in July 2009 reformed the governance of public and not-for-profit hospitals by increasing the role of the hospital director in defining the strategies and deciding on a hospital's operations. At the regional level, one single authority (regional health agency) combines the roles of purchaser of hospital and ambulatory care, planner, and regulator. Notably for a Bismarckian health system, the 2009 reform merged the administrations of the public health insurance scheme with other public services at the regional level.

How are costs controlled?

Cost control is a key issue in the French health system, as the health insurance scheme has faced large deficits for the last 20 years. More recently the deficit has fallen, from \in 10 billion– \in 12 billion per year in 2003 (US\$15 billion–US\$18 billion) to \in 5 billion (US\$7.4 billion) in 2009. This may be partly attributable to the following changes, which have taken place in the last three years:

- a reduction in the number of acute-care hospital beds
- new limits on the number of drugs reimbursed; around 600 drugs have been removed from public reimbursement in the last few years
- increases in generic prescribing and in the use of over-the-counter drugs
- a requirement to deliver a generic drug unless otherwise specified on the prescription
- the introduction of a voluntary gatekeeping system in primary care
- a basic benefit package for the management of chronic conditions
- since 2008, reclassification of copayments for prescription drugs, doctor visits, and ambulance transport as non-reimbursable by complementary private health insurance

At the same time, there has been an increase in the number of medical students admitted to university due to an expected shortage of doctors in the coming decade. Public funding has also had to increase to accommodate a rise in the fee schedule, since GPs are now considered as specialists and their cost per visit has risen from \notin 20 (US\$30) to \notin 23 (US\$34).

The economic downturn constitutes a threat for the state budget in general (the public deficit for 2009 was 7.5 percent of GDP) and the health insurance scheme as the revenue base shrinks.

What recent system innovations and reforms have been introduced?

The major innovations concern the governance of public and not-for-profit hospitals and the creation of regional health agencies that merge public health insurance and other public administrations at the regional level. More than simply creating administrative economies of scale, the merger creates one department responsible for health care and public health policies, managed care, and social services (previously overseen by seven departments). It is intended to be a major step toward a more consistent system.

In April 2009, the public health insurance scheme launched a series of individual contracts with office-based physicians (Contrats d'Amélioration des Pratiques Individuelles, or CAPI). These contracts link monetary rewards up to €5,000 (US\$7,357) per year to the achievement of targets in the process of care for asthma, diabetes, hypertension, immunization, and breast cancer screening. The contracts also stipulate the prescription of generic drugs, particularly for cardio-vascular conditions. The physicians' unions, the national physicians' regulation authority and the union of pharmaceutical industry opposed these contracts in court, on the grounds that 1) individual contracts (as opposed to contracts negotiated between the SHI and the unions) undermine the basis of a Bismarckian health system; 2) the physician–patient relationship should not be polluted by the suspicion that physicians may not prescribe in the best interest of the patients; and 3) by setting targets for generic prescribing, the contracts had been accepted by more than 5,000 GPs (or 10% of the total GP population)—far more than initial forecasts had estimated. Some incentives to coordinate care are available; GPs who manage patients with chronic conditions receive an additional €40 (US\$59) per patient per year. Social health insurance also finances a number of providers' networks that coordinate hospital and out-of-hospital care for diabetes, cancer, chronic renal failure, and multiple sclerosis.

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REINHARD BUSSE, M.D., M.P.H., BERLIN UNIVERSITY OF TECHNOLOGY & CHARITÉ UNIVERSITY MEDICINE BERLIN

Updated by Stephanie Stock, M.D. Institute of Health Economics and Clinical Epidemiology, University of Cologne

Who is covered?

Since 2009, health insurance is mandatory in Germany for all citizens, either in the social or in the private health insurance scheme, depending on previous insurance and/or job status. All employed citizens earning less than \notin 4,050 (US\$5,959) per month or \notin 48,600 (US\$71,514) per year (in 2009) are covered by a mandatory public health insurance scheme—the Statutory Health Insurance (SHI). Their dependents (non-earning spouses and children) are covered free of charge. Rules of exception apply to the self-employed and civil servants. Individuals whose gross wages exceed \notin 48,600 per year for three consecutive years (around 20% of the population) may choose either to remain in the publicly financed scheme on a voluntary basis (75% of them do) or to purchase private health insurance. The SHI scheme covers about 85 percent of the population. Around 10 percent of the population is covered by private health insurance, with civil servants and the self-employed being the largest groups. The remaining persons, e.g., soldiers and policemen, fall under special regimes.

What is covered?

Services: The SHI benefit package covers preventive services, inpatient and outpatient hospital care, physician services, mental health care, dental care, prescription drugs, medical aids, rehabilitation, and sick leave compensation. Since 1995, long-term care is covered by a separate insurance scheme, which is mandatory for the whole population.

Cost-sharing: Traditionally, the SHI scheme has imposed few cost-sharing provisions (mainly for pharmaceuticals and dental care). However, in 2004, copayments were introduced for office visits in ambulatory care (GPs, specialists, and dentists) for adults aged 18 years and older ($\in 10$, or US\$15, for the first visit per quarter or subsequent visits without referral). Other copayments were made more uniform: $\in 5$ to $\in 10$ (US\$7 to US\$15) per outpatient prescription (unless the price is at least 30% below the so-called reference price, i.e., the maximum reimbursable amount for drugs of equivalent effectiveness, which is the case for more than 12,000 drugs), $\in 10$ per inpatient day for hospital and rehabilitation stays (up to 28 days per year), and $\in 5$ to $\in 10$ for prescribed medical aids. In total, out-of-pocket payments accounted for 13 percent of total health expenditure in 2007.

Safety nets: Cost-sharing is generally limited to 2 percent of household income. For additional family members, part of the household income is excluded from this calculation. For chronically ill patients, there is a cost-sharing threshold of 1 percent of annual gross income. A directive lists conditions that are regarded as chronic disease; patients who suffer from breast cancer, cervical cancer, and colon cancer have to demonstrate that they attended recommended counselling on screening measures prior to the illness in order to qualify for the 1 percent threshold.

How is the health system financed?

Statutory Health Insurance (SHI): The SHI scheme is operated by about 180 competing health insurance funds (called "sickness funds"): autonomous, not-for-profit, nongovernmental bodies regulated by law. The scheme is funded by compulsory contributions levied as a percentage of gross wages up to a certain threshold. Earnings exceeding \in 3,675 (US\$5,408) per month or \in 44,100 (US\$64,897) per year (in 2009) are exempt from contribution payments. As of July 2009, the insured employee (or pensioner) contributes 7.9 percent of the gross wage, while the employer (or the pension fund) adds another 7.0 percent on top of the gross wage, so the combined maximum contribution is around \in 548 (US\$806) per month. This includes dependents (non-earning spouses and children), who are covered through the primary sickness fund member. Unemployed people contribute in proportion to their unemployment entitlements, but for long-term unemployed people with a fixed low entitlement (so-called "Hartz IV"), the government pays a fixed per-capita premium.

As of 2009, a uniform contribution rate is set by the government and, although sickness funds continue to collect contributions, all contributions are centrally pooled by a new central health fund, which allocates resources to each sickness fund based on a risk-adjusted capitation formula. This formula takes age, sex, and morbidity from 80 chronic or serious illnesses into account. Sickness funds will therefore receive considerably more for patients with cancer, AIDS, or cystic fibrosis than for the "ordinary" insured. Since 2009, sickness funds may charge the insured person an additional nominal premium if the received resources are insufficient (or pay back funds that are left over). So far, just one small sickness fund has raised an extra premium. Since 2004, there has been a growing amount of tax-financed federal subsidy for "insuranceextraneous" benefits provided by the SHI (especially coverage of children). These expenses are considered to be of common interest and therefore are (partly) covered from general taxes. The subsidies will rise from \notin 7.2 billion (US\$10.6 billion) to up to \notin 14 billion (US\$21 billion) in 2012. In 2007, the SHI scheme accounted for 61 percent of total health expenditure.

Private health insurance (PHI): Private health insurance plays a substitutive role in covering the two groups who are mostly exempt from the SHI (civil servants, who are refunded part of their health care costs by their employers, and the self-employed), as well as high earners who choose to opt out of the SHI scheme. All pay a risk-related premium, with separate premiums paid for dependents; the risk is assessed upon entry only, though contracts are based on lifetime underwriting. Private health insurance is regulated by the government to protect the insured from facing premiums that increase massively with age and from being overburdened by premiums if their income decreases. As of January 2009, private insurers offering substitutive coverage must take part in a risk-adjustment scheme (separate from SHI) that requires them to offer basic insurance for persons with ill health who are assigned to PHI because of previous insurance or profession and who could otherwise not afford a risk-related premium. In addition, recent legislation aims to intensify competition between insurers. Private health insurers are forced by law to set aside savings (i.e., "aging reserves") for old age from insurance premiums while the insured are young in order to slow the increase of premiums as they age. Previously, these aging reserves remained with the insurer when a person cancelled a policy or changed to another insurer. As of January 2009, individual aging reserves are transferable if privately insured persons change to another insurer. PHI also plays a mixed complementary and supplementary role, adding certain minor benefits to the SHI basket, providing access to better amenities such as single/double hospital rooms, and covering some copayments, especially for dental care. In 2007, PHI accounted for 9.3 percent of total health expenditure.

How is the delivery system organized?

Physicians: General practitioners have no formal gatekeeper function. However, since 2004, sickness funds are required to offer their members the option to enroll in a "family physician care model" that has been shown to provide not only better services, but often also a bonus for complying with gatekeeping rules. Ambulatory care in all specialties is delivered mainly by physicians working in solo practices, although polyclinic-type ambulatory care centers with employed

physicians have been allowed since 2004. Physicians in ambulatory care generally receive fee-for-service reimbursement, albeit increasingly bundled. Sickness funds negotiate aggregate payments annually with the regional associations of physicians, ensuring service provision and cost control. Hospitals are staffed principally by salaried doctors. Senior doctors may also treat privately insured patients on a fee-for-service basis.

Hospitals: Hospitals are mainly nonprofit, both public (about half of all beds) and private (around one-third of all beds). The private, for-profit segment has been growing in recent years (around one-sixth of all beds), mainly through takeovers of public hospitals. Doctors in hospitals are typically not allowed to treat outpatients, though exceptions are made if necessary care cannot be provided on an outpatient basis by specialists in private practice. Since 2004, hospitals may also provide certain highly specialized services on an outpatient basis. Inpatient care is paid through a diagnosis-related-group (DRG) system per admission, currently based on 1,192 DRG categories. The system was made obligatory in 2004 and is revised annually to take new technologies, changes in treatment patterns, and associated costs into account. Individuals have free choice of ambulatory care physicians and, if referred to inpatient care, of hospitals.

Disease Management Programs (DMPs): Legislation in 2002 implemented DMPs for chronic illnesses in the SHI to provide an incentive for the sickness funds to provide better care for chronically ill patients. Sickness funds are paid a lump sum for each enrollee and can waive copayments for those insured in the programs. DMPs currently exist for diabetes types 1 and 2, breast cancer, coronary heart disease, asthma, and chronic obstructive lung disease. They comply with evidence-based treatment recommendations and provide mandatory documentation and quality assurance. Sickness funds receive a per-capita administration compensation of €262 per year (US\$386) for each insured enrolled in a DMP. In October 2009, there were 13,087 regional DMPs registered with more than 5 million patients enrolled (more than 7% of all SHI-insured).

Government: The German government delegates regulation to the self-governing corporatist bodies of both the sickness funds and the medical providers' associations. The most important body is the Federal Joint Committee (G-BA), which was created in 2004 to replace several sectoral committees. Within the legal framework, the G-BA has wide-ranging regulatory power to formulate and implement in detail what services will be provided by the sickness funds. One of its most important responsibilities is to assess new methods of medical diagnosis and treatment, which must receive a positive evaluation vis-à-vis benefits and efficiency before they can be reimbursed by the sickness funds. Some purchasing powers have also been given directly to the individual sickness funds, e.g., the license to contract providers directly, to negotiate rebates with pharmaceutical companies, and to negotiate contracts with manufacturers.

What is being done to ensure quality of care?

Quality of care is addressed through a range of measures: *Structural quality* is addressed by the requirement to have a quality management system for all providers, the obligation of continuous medical education for all physicians, and health technology assessment for drugs and procedures (for which the Institute for Quality and Efficiency, IQWiG, was founded in 2004). Hospital accreditation is voluntary. Minimum-volume requirements were introduced for certain complex procedures (e.g., transplantations), requiring hospitals to disclose numbers of such procedures in order to be reimbursed. *Process and outcome quality* is addressed through the mandatory quality reporting system for all of the approximately 2,250 acute-care hospitals. Under this system, more than 150 indicators are measured for 30 indications covering about one-sixth of all inpatients in Germany. Hospitals receive individual feedback. Since 2007, around 30 indicators are made public in annual, mandatory hospital quality reports. From 2010, a new institute has been charged with developing quality assurance across ambulatory and inpatient care.

What is being done to improve efficiency?

Apart from the measures to improve quality listed above, another set of measures addresses efficiency more directly. All drugs, both patented and generic, have been subject to reference prices since 2004, unless they can demonstrate a clear added medical benefit. Since 2008, IQWiG is legally charged with explicitly evaluating the cost-effectiveness of drugs, thereby adding pressure on pharmaceutical prices. As mentioned, all hospitals are reimbursed per DRGs, so hospitals are paid the same for the same type of patient. As DRG weights are calculated based on average costs, there is enormous pressure on less-efficient hospitals.

How are costs controlled?

In line with placing more emphasis on quality and efficiency, previously imposed, relatively crude, but successful costcontainment measures (especially overall budgets for ambulatory physicians, hospital budgets, and collective prescription caps for physicians on a regional basis) have been carefully revised. The prescription cap, which complemented the reference prices for pharmaceuticals, was lifted in 2001, leading initially to an unprecedented increase in spending on pharmaceuticals by the sickness funds. Then, prescription caps, with physicians liable for exceeding regular volume for their patient mix, were introduced. More recently, negotiated rebates between sickness funds and pharmaceutical manufacturers and incentives to lower prices below the reference price are the major instruments. Hospital budgets were phased out between 2005 and 2009, while per-case DRGs have become the main instrument for reimbursing inpatient care. Since 2009, the fixed budgets for ambulatory care have been replaced by more flexible budgets that take population morbidity into account.

What recent system innovations and reforms have been introduced?

Rating the quality of care of nursing homes and ambulatory long-term care providers: As of 2009, nursing homes and ambulatory long-term care providers are evaluated in five areas with respect to more than 50 quality indicators by an independent institution. They are rated by grades equivalent to school marks, with results posted on the Internet. This simple procedure is designed to improve transparency in several important areas of long-term care.

Incentives for minimizing health service utilization and taking part in prevention programs: Sickness funds may offer reduced contributions or lower copayments to patients who agree to take part in schemes thought to reduce the burden of morbidity and health care costs—for example, minimizing use of health care services or taking part in specific disease management programs. Some schemes are binding for a minimum of three years.

Sustainability of health care financing: The central health fund (Gesundheitsfonds), introduced in 2009, has provided social health insurers with stable and reliable revenues, which are of particular importance for coping with the financial and economic crisis. Despite the major challenges of the previous year, the sickness funds have reported surpluses for the first half of 2009; so far, nominal premiums above the uniform contribution rate are a very rare exception, but may become introduced by more sickness funds in 2010.

Enhancing competition: A central element of the latest health care reform (2007) is the enhancement of competition in health care services. The introduction of various elective insurance schemes or plans by the sickness funds—including new forms of health care provision such as DMPs or family physician care models—offers more choices for the insured and gives leeway for insurers to compete. Elective insurance plans include, for example, providing sick pay for the self-employed and allowing patients to opt for alternative deductible or cost-sharing schemes. The sickness fund may charge an extra premium covering additional costs or—in the case of deductibles, for instance—may pay a premium to new members signing up. The sickness funds are obliged by law to report regularly on the results of elective insurance plans, notably on efficiency and savings.

The Italian Health Care System, 2009

DAVID SQUIRES THE COMMONWEALTH FUND

Who is covered?

The public health system (Servizio Sanitario Nazionale, or SSN) covers all citizens and legal foreign residents. Since 1998, illegal immigrants have been granted access to basic services. The SSN replaced a Bismarckian system of health insurance funds in 1978, and was modeled after the British NHS to provide uniform comprehensive care.

What is covered?

Services: The central government defines the minimum national benefits package that must be offered to all residents the "essential levels of care," or *livelli essenziali di assistenza* (LEAs). Every year since 2001, the SSN has produced both a positive and a negative list of LEA services, based on the criteria of effectiveness, appropriateness, and efficiency in delivery. The positive list spans ambulatory care, inpatient care, and some prescription drugs. The negative list of services comprises three categories of exclusion: 1) services that are ineffective or not within the province of the SSN, such as cosmetic surgery or certain types of physical therapy; 2) services that are covered only on a case-by-case basis, such as orthodonture and laser eye surgery; and 3) potentially inappropriate hospital admissions, such as for cataract surgery or hypertension. 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 and the second tier only in hospitals, but does not cover the third tier. Eye care and dental care are generally not covered and are paid for out of pocket. In particular, public provision of dental care (volume of services actually provided) is very low even where it is covered by the SSN. Regions can choose to offer non-LEA services, but must finance these themselves. Supplemental health insurance (various forms of "health funds") has been introduced recently to cover services excluded by the SSN, some social-health provisions for the elderly, and dental care.

Cost-sharing: Primary and inpatient care is free at the point of use, but copayments have been applied for ambulatory specialist services at the national level and outpatient drugs at the regional level. Furthermore, since 2007, a \in 25 (US\$37) copayment has been introduced for "unwarranted" use of emergency services, deemed to be noncritical and nonurgent. Private insurance is sometimes purchased to cover cost-sharing payments, but does not play a significant role in the health system.

Safety nets: All individuals with out-of-pocket payments over €129 (US\$193) in a given year are eligible for a tax credit equal to roughly one-fifth of their spending. Furthermore, cost-sharing exemptions are applied to people over the age of 65 with a household income below a certain threshold, people with chronic or rare diseases, people with disabilities, people who are HIV-positive, prisoners, and pregnant women. Certain screening services are also provided free of charge.

How is the health system financed?

Publicly financed health care: Public financing accounted for 77.2 percent of total health spending, or \in 1,752 (US\$2,616) per capita, in 2006. The public system is financed primarily through two taxes. The first is a business tax that is collected into a national pool and redistributed back to the regions, typically the source region. There are large interregional gaps in the business tax base, leading to financing inequalities. The second is a value-added tax collected by the central government and distributed to the regions as grants, with the aim of ensuring that all regions have adequate resources to provide the LEAs. Since 2001, the government has been trying to develop a National Solidarity Fund, fed through the value-added tax, to be distributed among the regions through a formula designed to reduce inequalities, but so far negotiations have been unsuccessful. In addition to these central taxes, regions are allowed to generate their own revenue, leading to further interregional financing differences. A 2008 financial law established that regions will be financed through standard costs. Standard costs (although not yet operationally defined) would be the sectoral and overall costs of services provided in the regions that are considered efficient and effective.

Private health insurance: Private health insurance plays a very small role in the health system, accounting for roughly 1 percent of overall health spending in 2006. Approximately 15 percent of the population has some form of private insurance, generally to cover cost-sharing requirements, services excluded under the SSN, and wider choice of public and private providers.

Out-of-pocket spending: In 2006, 20 percent of overall health spending was paid out of pocket. Much of this spending was for prescription drugs not covered by the public health system. Also, dental and eye care are generally not covered by public or private insurance, and are paid for mostly out of pocket.

How is the delivery system organized?

Regions: While the central government determines the required minimum benefit package and mostly controls the distribution of tax revenue, the 20 regions have responsibility for the organization and delivery of health services. Regions are allowed a large degree of autonomy as to how they perform this role, and most choose to allocate capitated resources and varying degrees of responsibility to local health authorities. These local authorities are led by a CEO, vertically integrated, and responsible for a range of hospital and community services within a geographic area.

Physicians: General practitioners' payments flow through a combination of capitation and fee-for-service—sometimes related to performance—and are regulated under a national contract and regional agreements. Capitation is based on the number of patients and is not adjusted for population characteristics. The majority of GPs generally operate in solo practices, although the central government and regions have offered incentives to encourage group practice. In the last few years, therefore, general practice has witnessed a transformation where the "solo practice" model is being progressively abandoned for new organizational forms (networks, groups, etc.), particularly in the northern part of the country. Government and GP associations have agreed to implement a model where GPs, specialists, and nurses coordinate to ensure 24-hour access and to avoid unnecessary use of hospital emergency departments. Incentives encourage GPs to play a gatekeeping role. Once they are referred, the Italian system allows freedom of choice for patients among all accredited specialists, including those in other regions. Ambulatory specialists are generally paid via fee-for-service and hospital-based physicians are generally salaried employees.

Hospitals: Hospitals dominate the health system, accounting in 2006 for 45.2 percent of overall health spending—the third-largest proportion reported among OECD countries. Depending on the region, public funds are allocated either by the region or by the local ASLs to semi-competitive public and accredited private hospitals. Public hospitals operate under the direct management of the local authorities or as semi-independent public enterprises similar to the British trust hospitals. Doctors are generally salaried employees of the hospital. A DRG-based prospective payment system (PPS) operates across the country, although it is generally not applied in locally run hospitals. There is, however, considerable interregional variability in many elements of the PPS system, such as how the fees are set, what services are excluded, and the tools employed to influence patterns of care; regions even use different coding and classification systems. All regions have mechanisms for cutting tariffs once a spending threshold for the hospital sector is reached, in order to contain costs and offset incentives to increase admissions.

What is being done to ensure quality of care?

The health ministry is responsible for quality assurance; it ensures that LEA services are provided and monitors waiting times. Since 1999, all doctors under contract with the SSN must be certified, and all SSN staff take part in a compulsory continuing education program. Furthermore, private hospitals must be accredited in order to contract with the SSN. Both the central and the regional governments take part in creating and distributing guidelines. Interregional inequity is a long-standing concern, particularly between the more affluent northern and less affluent southern regions. The southern regions trail the northern regions in the number of beds and advanced medical equipment, and see a greater presence of private facilities. Southern regions have argued that the central government should attempt to compensate for these inequities in its allocation of the health budget.

What is being done to improve efficiency?

There is a strong emphasis on treating patients at the lowest level of the health care delivery system that is appropriate for their condition. The LEAs—the minimum benefit package required under the SSN—are developed with consideration for effectiveness, appropriateness, and efficiency in delivery. Furthermore, the National Pharmaceutical Formulary bases coverage decisions in part on clinical effectiveness and cost-efficiency. Prices for reimbursable drugs are set in negotiations between the government and the manufacturer that consider the following criteria: cost-effectiveness for pharmaceuticals where no effective therapies exist; comparison with alternative pharmaceuticals for the same condition; costs per day compared to products of the same effectiveness; the economic impact on the health system; the estimated market share of the new drug; and average price and consumption data from all European countries. Prices for non-reimbursable drugs are set freely by the market.

Regarding the organization and delivery of care, the 1992 reform aimed to lead down the path toward a quasi-market for health care services, with local ASLs able to contract with competing private, fully public, and semi-independent public providers. This quasi-market has not fully materialized for several reasons: not enough public providers have branched off to be run as semi-independent enterprises; regions have exercised strict control over managing the system and capping spending; and the accreditation process for hospitals has created a barrier to entry.

Waiting times are a concern. National legislation has set maximum wait-time guarantees for ambulatory care and three elective procedures, although there is no comprehensive system to track this information. Some regions have experimented with programs that prioritize the delivery of certain services based on clinical need, and these have achieved some significant wait-time reductions.

How are costs controlled?

Containing health costs is a core concern for the central government, as public debt in Italy is among the highest of industrialized nations. The financing and delivery of care in Italy are divided, with the central government generally determining the regional budgets and the regions deciding how to organize and deliver care. Regions have some ability to raise their own revenue, but it is limited. This division between financing and delivery creates a tension, as the regions claim the government under-budgets and the government claims the regions need greater cost control.

What system innovations have been introduced?

Under the regionalized health system, most innovations in the delivery of care take place at the regional rather than the national level, with some regions viewed as leaders in innovation. In a pilot program funded by the national government, many regions are experimenting with a primary care model, the "casa della salute," which has a parallel in the U.S. medical home movement. In this model, a variety of health and social services are offered within the same space, with the aim of improving care for the chronically ill and enabling self-management. At the national level, a significant reform is planned that would distribute health funding to the regions according to standard costs based on the characteristics of the population; this reform, broadly believed to be necessary, still faces hurdles to its implementation. Although electronic medical records are already widely adopted, the central government has made investments to further develop health information technology to improve communication, organization, management, and exchange across sites of care.

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The Dutch Health Care System, 2009

NIEK KLAZINGA, PROFESSOR OF SOCIAL MEDICINE ACADEMIC MEDICAL CENTRE, UNIVERSITY OF AMSTERDAM

Who is covered?

Since January 1, 2006, all residents and those paying income tax in the Netherlands are required to purchase health insurance coverage, excepting those with conscientious objections and active members of the armed forces. Coverage is statutory under the Health Insurance Act (Zorgverzekeringswet, or ZVW) but provided by private health insurers and regulated under private law. In 2007, roughly 231,000 persons (1.5% of the Dutch population) were uninsured, and there were 240,000 defaulters. In 2009–10 policy measures are being added to enforce the mandate and payment of insurance premiums. Asylum seekers are covered by the government, and several mechanisms are in place to reimburse the health care costs of illegal immigrants unable to pay for care. Legislation creating a government fund to cover some of the health care costs of illegal immigrants was implemented in 2008.

Prior to 2006, people with earnings above approximately €30,000 (US\$44,200) 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. This form of substitutive private health insurance was regulated by the government to ensure that older people and people in poor health had adequate access to health care, and to compensate the publicly financed health insurance scheme for covering a disproportionate number of high-risk individuals.

What is covered?

Services: Insurers are legally required to provide a standard benefit package covering the following: medical care, including care by general practitioners (GPs), hospitals, and midwives; hospitalization; dental care (up to the age of 18, with coverage after age 18 confined to specialist dental care and dentures); medical aids; medicines; maternity care; ambulance and patient transport services; and paramedical care (limited physiotherapy/ remedial therapy, speech therapy, occupational therapy, and dietary advice). Insurers may decide how and by whom this care is delivered, giving the insured a choice of policies based on quality and costs. In addition to the standard benefit package, all citizens are covered by the statutory Exceptional Medical Expenses Act (AWBZ) scheme for a wide range of chronic and mental health care services such as home care and care in nursing homes. Most people also purchase complementary private health insurance for services not covered by the standard benefit package, such as adult dental care, although insurers are not required to accept all applications for private health insurance.

Cost-sharing: The insured pay a flat-rate premium (set by insurers) to their private health insurer. Everyone with the same policy pays the same premium, regardless of age or health status. Every insured person aged 18 and over must pay the first \in 155 (US\$228) of health care costs in a given year (some services, like GP care, are excluded from this rule). Out-of-pocket payments, including both cost-sharing and expenditure paid directly by private households, accounted for 6 percent of total national health expenditures in 2007.

Safety nets: Children are exempt from cost-sharing. The government provides "health care allowances" for low-income citizens if the average flat-rate premium exceeds 5 percent of their household income.

How is the health system financed?

Statutory health insurance: The statutory health insurance system (ZVW) is financed by a mixture of income-related contributions and premiums paid by the insured. The income-related contribution is set at 6.9 percent of the first \in 32,369 (US\$47,644) of annual taxable income. 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 who 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, which considers age, gender, labor force status, region, and health risk (based on past drug and hospital utilization). In 2009, the average annual premium was \in 1,065 (US\$1,568). The government pays for the premiums of children up to the age of 18. In 2008, the total spending on health care was ϵ 79 billion (US\$116 billion).

Private health insurance: Substitutive private health insurance was abolished in 2006. Most people purchase a mixture of complementary and supplementary private health insurance from the same health insurers who provide statutory coverage. This trend has given rise to concerns about the potential for risk selection, as the premiums and products of voluntary coverage are not regulated. In 2005, private health insurance accounted for 17.7 percent, and in 2007 5.7 percent, of the total costs.

How is the delivery system organized?

Health insurance funds: Insurers are private and are governed by private law. They are permitted to have for-profit status. They must be registered with the Supervisory Board for Health Insurance (CVZ) to enable supervision of the services they provide under the Health Insurance Act and to qualify for payments from the risk equalization fund. The insured have free choice of insurer, and insurers must accept all resident applicants. A system of risk equalization and adjustment is in place to prevent direct or indirect risk selection by insurers.

Physicians: Physicians practice directly or indirectly under contracts negotiated with private health insurers. GPs receive a capitation payment for each patient on their practice list and a fee per consultation. Additional budgets can be negotiated for extra services, practice nurses, complex location, etc. Experiments with pay-for-performance for quality in primary and hospital care are ongoing. Most specialists are hospital-based. Two-thirds of hospital-based specialists are self-employed, organized in partnerships; the remainder are salaried.

Hospitals: Most hospitals are private nonprofit organizations. Hospital budgets were previously developed using a formula that paid fixed amounts per bed, patient volume, number of licensed specialists, and other factors. Additional funds were provided for capital investment. Since 2006, hospitals are increasingly encouraged to obtain capital via the private market. Currently, payment of 34 percent of hospital care takes place through the Dutch version of DRGs, known as Diagnosis Treatment Combinations (DTCs). DTCs cover both hospital costs and specialists' costs, thereby strengthening the integration of the specialist in the hospital organization. Although a substantial portion of the hospital and specialist reimbursements through DTCs are still budgetarily framed and based on fixed prices, an increasing number are subject to market forces through price negotiation with the insurers.

What is being done to ensure quality of care?

At the health system level, quality of care is ensured through legislation regarding professional performance, quality in health care institutions, patient rights, and health technologies. The Dutch Health Care Inspectorate is responsible for monitoring, among other activities. Most quality assurance is carried out by health care providers in close cooperation with patient and consumer organizations and insurers. Mechanisms to ensure quality in the care provided by individual professionals involve reregistration and revalidation for specialists based on compulsory continuous medical education;

regular on-site peer assessments organized by professional bodies; and profession-managed 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." Patient experiences are systematically assessed and, since 2007, a national center has been working with validated measurement instruments comparable to the CAHPS approach in the United States. The center also generates publicly available information for consumer choice.

What is being done to improve efficiency?

The main approach to improving efficiency in the Dutch health system rests on regulated competition between insurers, combined with central steering of performance and transparency of outcomes via the use of performance indicators. These are complemented by provider payment reforms involving a general shift from a budget-oriented reimbursement system to a performance-related approach (for example, the introduction of DTCs mentioned above). In addition, various local and national programs aim to improve health care logistics and initiate "business process reengineering." At a national level, health technology assessment (HTA) enhances value for money by informing decision-making about reimbursement and encouraging appropriate use of health technologies. At the local level, several mechanisms ensure appropriate prescribing. Dutch authorities are working to establish a central HIT network to enable information exchange across sites of care.

How are costs controlled?

The new Health Insurance Act aims to increase competition between private health insurers and providers to control costs and increase quality. Insurers are required to charge the same premiums for the same benefits but may selectively contract with providers, leading insurers to compete on quality rather than risk selection, and publicly reported information on quality provides transparency. However, there is an awareness of rising costs. Increasingly, costs are expected to be controlled by the new DTC system in which hospitals must compete on price for specific services.

What system innovations have been introduced?

The major change in the insurance system took place in 2006 with the introduction of a universal insurance scheme executed by private insurers. That scheme created a level playing field. There is an ongoing review of the coverage of both the standard insurance scheme and the Exceptional Medical Expenses Act. Progress has been made on producing indicator information, though further improving transparency remains a focus. In the budget for 2010, reductions are foreseen in specialists' costs (which rose more in the past year than planned) and for care allowances via tax reductions. The economic crisis has so far not significantly affected health care costs, but major cost reductions are predicted once the economy recovers. Renewed emphasis has been put on prevention (e.g., support to quit smoking will be included in the standard benefit package) and disease management on specific chronic disease groups will be strengthened through the introduction of new financing schemes for integrated care.

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The New Zealand Health and Disability System, 2009

THE COMMONWEALTH FUND UPDATED BY THE MINISTRY OF HEALTH, NEW ZEALAND

Who is covered?

All New Zealand residents have access to a broad range of health and disability services with substantive government funding.

What is covered?

Services: The publicly funded system covers public health preventive and promotional services; inpatient and outpatient hospital care; primary health care services; inpatient and outpatient prescription drugs; mental health care; dental care for school children; and disability support services. Residents have free choice of a GP.

Cost-sharing: Copayments are required for GP and general practice nurse primary health care services, prescription drugs (NZ\$3.00 per item [US\$2.22]), private hospital or specialist care, and adult dental care. Subsidies for long-term aged care are asset-tested. Complementary and alternative medicines and therapies are paid for out of pocket.

Safety net: Health care is mostly free for children under age 6 and is subsidized to a significant degree for all people enrolled with Primary Health Organizations (PHOs), who make up 95 percent of the public.

How is the health system financed?

Government: Public funding is derived from general taxation (85%), levies on employers (7%), and local government (8%). Overall, public funding accounts for about 78 percent of health care expenditure. The government sets a global budget annually for most publicly funded health services. This is distributed to District Health Boards (DHBs). DHBs provide services at government-owned facilities (about one-half, by value, of all health services) and purchase other services from privately owned providers, such as GPs (most of whom are grouped as primary health organizations, or PHOs), private surgical hospitals, disability support services, and community care. Accident and injury care is financed by a separate quasi-governmental agency, the Accident Compensation Corporation (ACC).

Private insurance: Not-for-profit insurers generally cover private medical care. Private insurance is most commonly used to cover cost-sharing requirements, elective surgery in private hospitals, and specialist outpatient consultations. About one-third of New Zealanders have some form of private health insurance, which accounts for less than 6 percent of total health care expenditures.

Out-of-pocket spending: Patients are billed copayments for pharmaceuticals, private hospital or specialist care, and adult dental care; copayments for GPs have been reduced markedly in recent years. Subsidies for long-term aged care are assettested. Out-of-pocket payments, including both cost-sharing and expenditure paid directly by private households, accounted for 14 percent of total national health expenditures in 2007.

How is the delivery system organized?

Physicians: GPs act as gatekeepers and are usually independent, self-employed providers, paid through fee-for-service and copayments with partial government subsidy and, increasingly, capitation through PHOs. Most specialists hold joint

appointments, working for salaries in public hospitals while maintaining their own private clinics or treating patients in private hospitals.

Hospitals: New Zealand has a mix of public and private hospitals, but public hospitals dominate hospital care, including virtually all emergency care. Public hospitals are run and owned by District Health Boards (DHBs).

District Health Boards (DHBs): DHBs cover most aspects of care under the one-budget umbrella. They are responsible for determining the health and disability support service needs of the population in their districts, and for the planning, providing, and purchasing of those services. A DHB's organization has a funding arm and a service provision arm, operating government-owned hospitals, health centers, and community services. DHBs (there are 21 in the country) are partly elected by the people of a geographic area and partly appointed by the Minister of Health.

Primary Health Organizations (PHOs): Over recent years, there has been substantial additional funding to subsidize primary health care and improve access to services. Since July 2002, 81 PHOs have formed, and 95 percent of New Zealanders are now enrolled with a PHO. PHOs are networks of self-employed providers funded by capitation and fee-for-service. Since July 2007, all New Zealanders receive low-cost access to primary health care services provided by PHOs.

What is being done to ensure quality of care?

The Ministry of Health distributes the *Hospital Benchmark Information Report* quarterly to the DHBs to improve performance. The report includes quality and outcome data on emergency triage rates, acute readmissions, patient satisfaction, and hospital-acquired *S. aureus* bloodstream infections. Public reports on DHB performance are also released that rate each DHB on a series of performance indicators in such areas as waiting times, access to primary care services, and mental illness outcomes. All 21 DHBs are partners in producing benchmark data, which is compared with Australian hospitals.

Certification is mandatory for hospitals, rest homes, and assisted living facilities, subject to defined health and disability standards. Certification audits are often performed in conjunction with accreditation by third parties.

A number of policy elements have been introduced, partly or fully motivated by the desire to reduce health disparities. They include lower copayments for primary care, additional services for high-risk patients or patients with complex needs, specific PHO services targeted toward Maori and other vulnerable populations, and community and Maori involvement in PHO governance.

The government's Quality Improvement Committee is currently pursuing several programs in public hospitals. The programs focus on optimizing the patient journey, making medication management safer, reducing health care–acquired infection rates, standardizing national incident management, establishing a per-operative mortality review committee, and building a consumer forum. DHBs have 0.25 percent of their funding at risk if they fail to participate in these programs. In addition, the Ministry of Health, District Health Boards, and nongovernment organizations work collaboratively to achieve health targets identified by the government at the DHB and national levels.

What is being done to improve efficiency?

New Zealand has given considerable attention to prioritization in elective surgery, particularly in the development of access criteria. For several types of surgeries, patients are assigned a "Clinical Priority Assessment Criteria" score intended to give priority to patients in the greatest need who are most likely to benefit, thereby rationalizing the waiting system. This method of prioritization has been controversial, and regional disparities remain in access to surgery. To improve access to surgery, the government has recently announced its intention to make smarter use of the private sector.

The NZ Health Information Services operate the National Booking Reporting System, which keeps track of how many patients are waiting for treatment and how long those who have received treatment waited. These statistics are used to plan wait-time reduction policies. DHB-level measures related to efficiency (average length of stay, day-case procedures, day of surgery admission, and failure to attend) are publicly reported.

The inclusion of drugs on the national formulary is determined by PHARMAC (the Pharmaceutical Management Agency of New Zealand). Relative cost-effectiveness is one of nine decision criteria used in making funding decisions.

Improving performance and lean thinking in hospitals are a recent area of focus. Work is underway to realign targets, improve productivity metrics, incentivize performance improvement, improve ward efficiency, reduce emergency department waiting times, improve medical workforce productivity, increase day surgery and improve theater utilization, jointly procure consumables, and reduce the cost of back-office or overhead functions.

How are costs controlled?

The government sets an annual publicly funded health budget. New Zealand is shifting from open-ended, fee-for-service arrangements to contracting and funding mechanisms such as capitation. "Booking systems" in lieu of waiting lists ensure that elective surgery services are targeted to those people best able to benefit. Early intervention, health promotion, disease prevention, and chronic-care management are being emphasized in primary care and by DHBs. Drug purchasing occurs through a government agency (PHARMAC) for publicly subsidized drugs dispensed through community pharmacies and hospital. The competitive tendering process has kept pharmaceutical costs low and increased their availability. While New Zealanders have access to the full range of pharmaceutical products, the PHARMAC subsidy for patients is set at the price of the lowest-priced generic medicine in each category. If people wish to access a medicine more expensive than the subsidy and there are no clinical indications, they pay the extra cost.

What recent system innovations and reforms have been introduced?

Health organizations in New Zealand are focusing on opportunities to improve system productivity and hospital efficiency through better management of acute demand. Collective procurement and administration, and initiatives driven by clinicians at the ward and department levels to improve hospital productivity and quality, aim to enhance performance as well as patient experiences. However, recent initiatives to reduce emergency department (ED) waiting times and to increase elective surgery volumes while also reducing waiting times have demonstrated the need to take a systemic approach to improving system efficiency and patient flows. The most effective use of hospital resources lies with programs that better manage acute demand across the system; in particular, improving primary and community care reduces ED admissions. Work has commenced on innovative primary care delivery programs that will be provider-driven and will focus on secondary–primary coordination.

A voluntary bonding scheme was introduced in February 2009 to reward medical, midwifery, and nursing graduates who agree to work in hard-to-staff communities and specialties. Hard-to-staff communities and specialties struggle with higher vacancy rates, higher locum use, higher use of professionals trained overseas, and longer waiting periods than do their counterparts. Research shows that the longer graduates stay in a community or specialty during their training years, the more likely they are to stay on once their training is complete. The bonding scheme is a practical initiative designed to move graduates into the communities and specialties that need them most. Graduates who are part of the scheme are eligible for incentive payments intended to help repay their student loans for up to five years. More than double the expected number of registrations for the scheme have been received and confirmed. The Clinical Training Agency, created to centralize work around workforce issues, provides a systemwide response to concerns such as workforce shortages and fragmentation.

The Norwegian Health Care System, 2009

David Squires The Commonwealth Fund

Who is covered?

Coverage is universal. The system is built on the principle that all inhabitants have equal access regardless of social status, income, and geography. European Union residents have the same access to health services in Norway as residents.

What is covered?

Services: There is no standard national benefit package, but in practice the statutory health system covers hospital care, ambulatory care, and approved prescription drugs; partly covers dental care (children and some other groups); and does not cover nonmedical eye care. Certain treatments, such as plastic surgery, are covered only if considered by a physician to be essential or beneficial. Primary, preventive, and nursing care are organized at the local level by the 430 municipalities. The health budget for these services is decided at the local level but a number of services are obligatory, particularly those related to pediatric care. Specialty care is organized at the regional level, with the four regional health authorities obligated to provide equal access within their boundaries. The National Insurance Scheme (NIS) provides financial security to individuals and families in the case of sickness or disability.

Cost-sharing: In 2007, out-of-pocket payments made up 15 percent of total health expenditure, reflecting moderate cost-sharing requirements. However, for primary care services (GPs) the copayment accounts for 42 percent of total costs. All care and treatment received in a public hospital, including pharmaceuticals, are free for patients. Some copayments are required for GP and specialist consultations (approximately US\$35 and US\$50, respectively), prescription drugs (a maximum of US\$85), ambulatory care, and radiology and laboratory tests (US\$45 and US\$10, respectively). Prescription drugs require copayments according to a reference price set by a national price comparison. Home and long-term institutional care for the elderly and disabled have high cost-sharing requirements. Dental care requires some copayments, but they are waived for children under the age of 18. Cost-sharing charges are set by the central government.

Safety nets: There is an annual ceiling for many cost-sharing requirements, after which out-of-pocket costs are waived—in 2006, this ceiling was NOK1,615 (\$282 USD). Long-term care and some prescription drugs do not qualify toward this ceiling. Furthermore, certain populations are exempt from some types of cost-sharing requirements—children under the age of 7 receive free physician treatment and essential drugs, women receive all treatment and examinations related to pregnancy for free, and residents who receive minimum requirement or disability pensions receive free essential drugs and nursing requisites.

How is the health system financed?

Norway is, per capita, one of the wealthiest countries in the world. In 2006, it had the second-highest per capita spending on health care among OECD countries, although as a percentage of GDP that spending was less than the OECD median.

Government: Public spending made up 83.6 percent of total health expenditure in 2006 and is financed through general taxation. Tax revenue is collected by the national government (87.2% in 2003), the counties (1.5% in 2003), and the municipalities (11.0% in 2003) through personal income and wealth taxes, value-added taxes (VAT) and excise duties, corporate taxes, and taxes on petroleum activities. Taxpayers with high expenses due to a 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, funds for hospital care are allocated to the regional health authorities through a combination of block grants and activity-based funding (in 2009, 60% and 40%, respectively). The General Purpose Grant Scheme redistributes funds between the municipalities based upon population characteristics, size, and density.

Private health insurance: Private insurance does not play a significant role in Norway's health system; few residents are enrolled. Private insurance typically seeks to offer shorter waiting times for publicly covered services. Private enrollees typically receive coverage through their employers.

How is the delivery system organized?

Physicians: Norway's 430 municipalities have responsibility for funding and delivering primary care services (some parts are funded as reimbursement from the national insurance program), including health promotion, preventive medicine, general medical diagnosis, treatment and rehabilitation, emergency care, and long-term nursing care. Since a 2001 primary care reform, patients are encouraged to sign on with the general practitioner of their choice, who also functions as gatekeeper, and have the freedom to seek a second opinion and change GP twice a year. Virtually all residents are now registered with a regular GP, with those not registered paying higher out-of-pocket fees for consultations. The 2001 reform also established the current model wherein municipalities contract with private general practitioners who receive a combination of capitation, fee-for-service, and out-of-pocket payments. The model for financing GPs is set nationally, with little variation among municipalities. Most GPs are self-employed, the remainder being salaried employees of the municipalities. General practices most commonly comprise two to six physicians. Hospital-based specialists are salaried, and ambulatory specialists are generally self-employed and paid through a combination of subsidies (annual lump sums) and fee-for-service.

Hospitals: Since the 2002 Norwegian Hospital Reform, four regional health authorities have responsibility for inpatient and specialist care in Norway. Hospitals are state-owned, though each one is a discrete legal entity with a board and management, granting it a degree of self-governance. Regional health authorities oversee all hospitals in their region, and are led by an executive board, appointed by the Ministry of Health, and a chief executive officer. Regional health authorities are funded through a combination of capitation and activity-based payments—which generally flow directly to the hospitals—and out-of-pocket payments (for outpatient care). All hospitals offer ambulatory care services, and virtually all ambulatory care consultations occur in hospitals or through private specialists with agreements with the regional health authorities. Hospital and specialist consultations, in order to be reimbursed by the NIS, must be referred by a GP.

What is being done to ensure quality of care?

The Norwegian Directorate for Health is tasked with quality improvement in the health system, with a focus on safety and efficiency, patient-centered care, coordination, and continuity. Health promotion, disease prevention, and elimination of socioeconomic disparities are also targeted as priority areas. Toward these efforts, the Norwegian Knowledge Centre for Health Services, a state-funded independent research organization, gathers and disseminates information on the effects and quality of health services through knowledge synthesis (systematic reviews and health technology assessments); a national electronic health library; performance measurements; and promoting and supporting quality improvement, patient safety, and evidence-based practice. The Norwegian Registration Authority for Health Personnel, which provides licensing and authorization for all health care personnel, can grant full and permanent approval based upon meeting educational and professional criteria. The Norwegian Board of Health carries out inspections at all levels of the health system, including the health care workforce.

What is being done to improve efficiency?

Improving the effectiveness and efficiency of care is a primary policy goal. The Norwegian Knowledge Centre for the Health Services disseminates health technology assessments, research syntheses, cost-benefit analyses, and guidelines for treatment in order to improve the quality and value of health services. For pharmaceuticals, the Norwegian Medicines Agency, which determines whether a new drug should be included on the "Blue List" reimbursement scheme, takes cost-effectiveness into account in comparison with existing treatments. The use of generic drugs is encouraged, with the price set at a percentage of the proprietary drug. In addition to the Blue List, a "green prescription scheme" encourages providers to "prescribe" lifestyle and nutrition programs as a first alternative to more expensive preventive medicine.

Currently, virtually all GPs use electronic patient records, but uptake has been slower among hospitals and nursing homes owing to more complex and integrated information system requirements. The centralized National Health Network, owned by the regions, seeks to establish a single information-exchange platform, providing a hub of communication for GPs, hospitals, nursing homes, pharmacists, and others.

In the hospital sector, payment reform in 1997 aimed to create activity-based payment for services based on the DRG system. It was followed by reforms in 2002 that centralized responsibility for inpatient and specialist care in four regional health authorities. Both reforms have been credited with improving efficiency.

How are costs controlled?

New drugs expected to considerably increase costs must receive ministerial and parliamentary approval before being added to the reimbursement scheme. Drug prices are set at the average of the three lowest market prices for that drug in a group comparison among Scandinavian and western European countries. The drug-pricing scheme also encourages the use of generic drugs, setting the generic price at a percentage of the branded price that decreases over time.

The government sets an overall health budget in the December prior to each calendar year, though parliament typically approves additional funds throughout the year. Like most countries, Norway faces the financial challenges posed by an aging population. However, a national petroleum savings fund of over NOK2.2 trillion (US\$384 billion) provides Norway with flexibility in addressing rising health costs.

What system innovations have been introduced?

With quite recent reforms at the primary care (regular GP reform, 2001), hospital (2002), and national authority (2002) levels, there have been a series of major changes in Norwegian health care. However, in April 2010 Parliament passed the Coordination Reform, focused on improving prevention, integrating care, and strengthening health care in the municipalities. There has been substantial growth in health expenditure over the last 10 years, with most going to hospitals, and the reform seeks to curb this growth and direct more investments toward primary care. The proportion of physicians working as GPs has gone down dramatically over the last 10 years, indicating unbalanced growth of specialist services and secondary care. The reform will also strengthen information systems and a new national state-owned company, the Norwegian Health Network, has been established for developing and operating the IT infrastructure for the health care sector.

There has also been an increased focus on quality and prioritization. The current government has established the Norwegian Council for Quality Improvement and Priority Setting in Health Care, and priority-setting guidelines have been created to guide referrals to secondary care.

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The Swedish Health Care System, 2009

Anders Anell, Adjunct Professor Institute of Economic Research, School of Economics and Management, Lund University

Who is covered?

Coverage is universal. All residents are entitled to publicly financed health care.

What is covered?

Services: The publicly financed health system covers public health and preventive services; inpatient and outpatient hospital care; primary health care; inpatient and outpatient prescription drugs; mental health care; dental care for children and young people; rehabilitation services; disability support services; patient transport support services; home care; and nursing home care. Residents' ability to choose primary care provider and hospital varies by county council.

Cost-sharing: Cost-sharing arrangements exist for most publicly financed services. Patients pay SEK100–SEK150 (US\$14–US\$21) per visit to a primary care doctor, SEK200–SEK300 (US\$28–US\$42) for a visit to a specialist or to access emergency care, and up to SEK80 (US\$11) per day in hospital. For outpatient pharmaceuticals, patients pay the entire cost up to SEK900 per year (US\$127), while costs above that amount are subsidized at different rates (50%, 75%, 90%, and 100%), depending on the level of out-of-pocket expenditure. Out-of-pocket payments accounted for 13.9 percent of total health expenditure in 2005. Out-of-pocket payments, including both cost-sharing and expenditure paid directly by private households, accounted for 16 percent of total national health expenditures in 2007. Services paid for privately out-of-pocket include mainly curative and rehabilitative care and medical goods dispensed to outpatients, but also long-term health (nursing) care and prevention and public health services.

Safety nets: The maximum amount to be paid out-of-pocket for publicly financed care in a 12-month period is SEK900 (US\$127) for health services and SEK1,800 (US\$254) for outpatient pharmaceuticals. Children are exempt from cost-sharing for health services. An annual maximum of SEK1,800 for pharmaceuticals also applies to children belonging to the same family. Limited subsidies are available for adult dental care.

How is the health system financed?

The publicly financed system: Public funding for health care comes mainly from central and local taxation. County councils and municipalities have the right to levy proportional income taxes on their residents. The central government provides funding for prescription drug subsidies. It also provides financial support to county councils and municipalities through grants allocated using a risk-adjusted capitation formula. One-off central government grants focus on specific problem areas such as waiting times and geographical inequalities in access to health care. The 21 county councils provide funding for mental health care, primary care, and specialist services in hospitals. The 289 municipalities provide funding for home care, home services, and nursing home care. Local income taxes account for 70 percent of county council and municipality budgets; the remainder comes from central government grants and user charges. Overall, public funding accounted for 85 percent of total health expenditure in 2005.

Private health insurance: About 5 percent of the population is covered by supplemental private health insurance, which provides faster access to care and access to care in the private sector. In 2005, private health insurance accounted for less than 1 percent of total expenditure on health.

How is the delivery system organized?

Government: The three levels of government (central government, county councils, and municipalities) are all involved in health care. The central government determines the health system's overall objectives and regulation, while local governments fully determine how services are to be delivered in consideration of local conditions and priorities. As a result of this decentralization, the organization of the delivery system varies at the local level.

Primary care: Organization of primary care varies among the 21 county councils. Most health centers are owned and operated by county councils, with GPs and other staff as salaried employees. Traditionally, health centers have been responsible for providing primary care to residents within a given geographical area. This model is being replaced, with possibilities increasing for residents to choose their provider and physician. By January 1, 2010, a new law supporting choice for the population and privatization of primary care providers will come into effect. Several county councils have already implemented such changes. Primary care has no formal gatekeeping function. Residents may choose to go directly to hospitals or, if available, to private specialists contracted by county councils. Increasingly, residents are encouraged to visit their primary care provider first. Higher copayments for visits to hospitals and specialists without a referral are intended to support such behavior. Payment to private primary care providers is largely based on capitation, topped up with fee-for-service and/or target payments. The number of ambulatory specialists and, especially, primary care providers working under a public contract is increasing; roughly a quarter of all primary care physicians are private—up to half in some county councils. Fee-for-service arrangements with cost and volume contracts are more common for payment of private providers, in particular for ambulatory specialists. Physicians and other clinical staff in hospitals are salaried employees.

Hospitals: Almost all hospitals are owned and operated by the county councils. There are no private wings in public hospitals. Hospitals have traditionally had large outpatient departments, reflecting low levels of investment in primary care. For tertiary care, the county councils collaborate in the six regions with at least one university hospital. Private hospitals specialize mainly in elective surgery and work under contract with county councils. Payment to hospitals is usually based on DRGs (diagnosis-related groups) combined with global budgets.

What is being done to ensure quality of care?

At the national level, the National Board of Health and Social Welfare (Socialstyrelsen), the Swedish Council on Technology Assessment in Health Care (SBU), and the Dental and Pharmaceutical Benefits Board (Tandsvårds- och läkemedelsförmånsverket, or TLV) support local governments by preparing systematic reviews of evidence and guidance for priority-setting.

At the local and clinical levels, medical quality registers managed by specialist organizations play an increasingly important role in assessing new treatment options and providing a basis for comparison across providers. Transparency has increased, and some registers are now at least partly available to the public. Since 2006, performance indicators are systematically applied to county councils and, to some extent, providers by the county councils in collaboration with the National Board of Health and Welfare. Further improvements in the transparency of national quality assessment include a national drug register, which records patients' age, sex, and drug use and expenditure, as well as the prescriber's profession and practice.

Concern for patient safety has been growing. There are five priority areas for improvement: unsafe drug use, particularly among older people; hospital hygiene; falls; routines to control for fully avoidable patient risks; and communication among health care staff and between staff and patients.

The Swedish government has given high political priority to e-health and to creating awareness at all levels within the health care sector that e-health should be seen as the main tool for its renewal and improvement.

What is being done to improve efficiency?

Several initiatives are being implemented to improve general access to health services and treatment. According to an agreement between the county councils and the central government, all non-acute patients should be able to see a primary care physician within seven days, visit a specialist within 90 days of referral by a GP, and obtain treatment within 90 days of the prescription of treatment by a specialist. Several county councils struggle with longer waiting times for at least some patients and services (particularly for elective surgery). If patients are required to wait more than 90 days, they can choose an alternative provider with assistance from their county council. Those county councils that comply with waiting time targets qualify for extra grants funded at the national level.

In primary care, residents in several counties are encouraged to choose a provider based on access and quality—with local and national initiatives underway to provide such information—and the money follows the patient. A parallel policy is to increase the number of private primary care providers and encourage general competition for registration by residents. At the same time, however, there is a call for closer collaboration between primary care providers, hospitals, and nursing homes and other long-term care providers, particularly where care of older people is concerned. There are similar calls for increased integration of health and social services for mental health patients.

How are costs controlled?

County councils and municipalities are required by law to set annual budgets for their activities, and to balance those budgets. In the past, the central government has introduced temporary financial penalties (by lowering its grant) for local governments that raised their local income tax rate above a specified level. For prescription drugs, the county councils and the central government agree on subsidies to the county councils for a period of years—the current agreement covers 2009–2010. The national Dental and Pharmaceutical Benefits Board (TLV) engages in value-based pricing of prescription drugs, determining reimbursement based on an assessment of health needs and cost-effectiveness. The same board also determines subsidies for dental care.

At the local level, costs are controlled by the reality that most health care providers are owned and operated by the county councils and municipalities. Most private providers work under contract with county councils. Financing of health services through global budgets and contracts and paying staff a salary 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, a prospect that limits hospitals' motivation to increase activity. Primary care services are mainly paid for via capitation, with minimal use of fee-for-service arrangements. In several county councils, primary care providers are financially responsible for prescribing costs, creating incentives to control pharmaceutical expenditure.

What recent system innovations and reforms have been introduced?

The public funding of Swedish health care, including the role and level of user charges, has been stable over time; however, a number of innovations have been introduced for the purpose of improving the quality and cost-effectiveness of services. Recent innovations include the introduction of choice for the population among primary care providers, while maintaining the traditions of a multidisciplinary staff, broad financial responsibility, and fixed risk-adjusted payment topped up with pay-for-performance. Primary care is also increasingly provided by private practices that are paid according to the same principles as public providers. The role of the Dental and Pharmaceutical Benefits Board 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. Increasingly, the distribution of national grants is based on county council performance, e.g., related to waiting times. In general, transparent comparison of performance across county councils and providers is not only accepted, but also increasingly used to support decision-making at the national, local authority, and clinical levels.

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Who is covered?

Coverage is universal, with the 1996 Health Insurance Law mandating that residents purchase basic health insurance from among competing health funds. There are virtually no uninsured residents. Insurance is individual, does not extend to dependents, and is not sponsored by employers. Many residents purchase supplementary insurance to cover additional services that are not covered under the basic package or to have their choice of a doctor when hospitalized.

What is covered?

Services: The basic insurance package covers most GP and specialist services, a list of pharmaceuticals, and some preventive measures. It also covers out-of-canton services in case of medical need, even though many residents purchase supplemental insurance for wider coverage and more options.

Cost-sharing: Health funds are required to offer a minimum annual deductible of CHF300 (US\$292), though enrollees may opt for a higher deductible and a lower premium. Enrollees pay 10 percent coinsurance for all services, except for a 20 percent charge for brand-name drugs that have a generic alternative, unless specifically prescribed, and a CHF10.00 (US\$9.74) copayment per inpatient day. Medical services provided to women during maternity and a few preventive services are exempt from deductibles. Insurers can lower or waive coinsurance for people insured in a managed-care plan. Municipalities or cantons cover health insurance expenses of social-assistance beneficiaries and recipients of supplementary old-age and disability benefits.

Safety nets: Coinsurance charges are waived after an enrollee reaches CHF700 (US\$682) in a given year. Confederations and cantons provide income-based subsidies to individuals to help cover their premiums, though the process varies by canton. Roughly 1.6 percent of residents do not pay their premiums, with responsibility for those residents falling to the canton.

How is the health system financed?

Statutory health insurance: Mandatory basic insurance, 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 premiums range between CHF2,760 (Nidwalden) and CHF5,040 (Geneva) (US\$2,689 and US\$4,911). Costs are redistributed among insurers from a central fund according to a risk equalization scheme based on age and gender. As of 2012, this scheme will also take into account hospital or nursing home stays of more than three days in the previous year. Transfer amounts are established retroactively, possibly resulting in a penalty for lowering costs. Insurers offer premiums for defined regions, which may only vary within these regions by three age categories (children, young adults, and adults) and level of deductible. Between insurers within the same region, however, the premium variation can still be significant— as much as 90 percent in Zurich. This variation may be due in large part to risk selection rather than efficiency differences. Non–managed-care insurance plans pay uniform prices for services; those prices are negotiated by the insurer and suppliers or their organizations. Social insurance finances 42.8 percent of total health expenditures, including the 35.2 percent financed by mandatory health insurance (2007).

Supplemental health insurance: Supplemental private health insurers, regulated by the Federal Office of Private Insurance, can vary benefit packages and premiums, and can refuse enrollment to applicants on the basis of health information. Unlike insurers offering basic coverage, supplemental insurers can operate for profit. Often an insurer will have a nonprofit branch offering mandatory basic insurance and a for-profit branch offering supplemental insurance. It is illegal for supplemental insurers to base private insurance enrollment decisions on health information obtained from basic health coverage records, but that law is hard to enforce.

Other: Out-of-pocket expenditures are relatively high, contributing 30.6 percent of total health expenditure, including 5.8 percent in copayments. Along with deductibles and coinsurance, Switzerland has high rates of out-of-pocket spending on dentistry and long-term care. Basic insurance covers only "medically necessary" services for long-term care, and as a result the costs of many of these services are borne by the individual or are absorbed by the community. As of July 2010, mandatory insurance will pay a fixed contribution to the costs of long-term care, the patient will pay 20 percent of the amount paid by insurance, and the remaining costs will be financed by the canton.

How is the delivery system organized?

Health insurance funds: Insurers are private, though strictly regulated. All insurers offering basic coverage must be nonprofit, while insurers offering supplemental coverage may be for-profit. Often insurers offer both and are split into nonprofit and for-profit branches. Residents have free choice among insurers, who are required to accept all applicants for the basic package and may not vary premiums other than based on region, age group, and level of deductible. A risk equalization scheme redistributes revenue among insurers to discourage risk selection. Managed-care organizations are permitted, and 12 percent of residents enroll for basic coverage with a managed-care insurer, either an HMO, an IPA, or fee-for-service with gatekeeping provisions. In two-thirds of these plans, GPs act as gatekeepers through whom specialist care is referred, although patients can also register with specialists as their gatekeepers. Patients have broad choice of physicians.

Government: The system is highly decentralized. The 26 cantons each play several roles, as they are responsible for regulating entry for many providers, hospital planning, and subsidizing a number of institutions and organizations. Inpatient care, in particular, is heavily financed by the cantons.

Physicians: Residents generally have free choice of a GP and access to specialists without a referral (unless enrolled with a gatekeeping managed-care plan). Outpatient care tends to be physician-centered, with nurses playing a relatively small role. Some managed-care plans operate capitation models, in which physician groups are paid on a capitation basis. Otherwise, ambulatory physicians are paid on a fee-for-service schedule negotiated between insurers and providers or their organizations at the canton level. Hospital-based physicians are paid a mix of salary (by the statutory insurance policies) and fee-for-service (by the supplemental insurance policies).

Hospitals: Cantons provide a substantial share of hospital funding, and have responsibility for hospital planning. About 75 percent of acute inpatient services are provided by public or publicly subsidized, privately owned hospitals. This system of planning and funding hospitals at the canton level rather than centrally is a primary reason that the Swiss system is fragmented along cantonal lines. Hospitals receive their funding from insurers, either in the form of per-diem rates or as diagnosis-related reimbursements. The deficits of public and subsidized hospitals are covered by the canton.

What is being done to ensure quality of care?

To practice medicine, providers must be licensed, meeting educational and regulatory standards. Professional self-regulation has been the traditional approach to quality improvement. Accreditation for medical schools is optional, although accreditation for postgraduate curricula is mandatory. Cantons often have their own requirements for certification.

Many medical organizations have developed clinical pathways and consensus guidelines, although these are not standardized or used systematically nationwide. Many local quality initiatives have been undertaken, often at the provider level. In recent years, the government has examined implementing a framework for systematic quality measurement, public reporting, and minimum national standards. Federal authorities publish medical quality indicators.

What is being done to improve efficiency?

TARMED, a partially standardized fee schedule for outpatient care across Switzerland, gives greater weight to nontechnical services than technical services, incentivizing less resource-intensive forms of care. Also, per-diem payment rates to hospitals, which encourage longer stays, are being replaced by diagnosis- or service-related remuneration schedules.

The risk equalization scheme is designed to force insurers to compete on cost and quality only, allowing the power of market forces to improve efficiency. While observers generally acknowledge that under the current scheme (which considers only age and gender) risk selection is still broadly used, as of 2012 it will be refined to include hospital and nursing home stays of more than three days in the previous year. This reform should bolster the market incentive to improve efficiency. Furthermore, the risk equalization scheme currently looks retroactively at insurers' actual costs when determining how much to transfer; consequently, it may further discourage cost control and efficiency improvements, and so may be reformed.

A national health information technology (HIT) strategy has been developed seeking to implement a national portal for HIT, an electronic patient filing system, and an electronic insurance card system. These initiatives are coordinated and receive funding through the central and cantonal governments.

Reducing cantonal barriers has been a controversial topic in recent years. As of 2012, patients will have free choice of hospitals, in accordance with hospital planning changes.

How are costs controlled?

Switzerland has some of the highest health costs in the world, spending CHF7,263 (US\$7,076) per capita in 2007 (only the U.S. and Norway spend more). Some insurance plans employ gatekeeping and capitation payments for physicians. Among managed-care plans, HMOs are estimated to achieve savings of between 10 percent and 25 percent. Out-of-pocket expenditures, which are high, may reduce overall expenditure, although they are typically due to dental and long-term care. Premium differences within cantons are generally considered to be due to risk selection rather than cost control.

Before a coverage decision is made, all new pharmaceuticals undergo evaluation, during which both effectiveness and price are considered. Efforts are also being made to reassess the price of older drugs more frequently. Generic drugs must be priced at least 40 percent (as of October 1, 50%) lower than the original brand; however, they make up only 8.9 percent of the drugs sold on the Swiss market. Patients pay an elevated coinsurance for brand-name drugs that have a generic equivalent (20% instead of 10%). Pharmacists are paid a flat amount for dispensing drugs, rather than an amount based on the price, reducing their incentive to deliver the most expensive drug.

What recent system innovations and reforms have been introduced?

In December 2007, the Federal Parliament passed hospital-financing reform. The legal change will come into force on January 1, 2012. Instead of covering the costs of public and publicly subsidized hospitals, compulsory health insurance will finance only the services of private and public hospitals that adhere to cantonal hospital planning—services in hospitals or departments not included on a cantonal hospital list will not be reimbursed, with the goal of restricting hospital supply. Payments will be flat-rate and service-related, and will remunerate the hospitals for both operating costs and capital costs. This financing scheme will facilitate the cantons' ability to plan hospital capacities according to projected demand. In addition to the change in hospital financing, the Federal Parliament is refining the risk-adjustment compensation formula among insurers: as of 2012, an indicator of health status will be included in the formula in addition to age and gender.

In June 2008, the Federal Parliament decided to reform long-term care financing. Instead of covering the costs of basic care (activities of daily living) and nursing care for patients in nursing homes and patients needing home care, compulsory health insurance will pay a flat contribution that is fixed by the Federal Council. The patient will additionally contribute no more than 20 percent of the highest amount paid by compulsory health insurance, and the cantons will regulate the financing of the remaining costs. The corresponding law changes are effective as of July 1, 2010.

In July 2009, a reexamination of the prices of drugs reimbursed under the social insurance scheme led to the decision to move to a reference pricing scheme, based upon drug prices in six European countries (Germany, Netherlands, United Kingdom, Denmark, France, and Austria).

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Who is covered?

Health care coverage is fragmented between multiple payers, with wide gaps in the population uninsured. In 2008, 60 percent of residents received coverage from private insurers, with 55 percent receiving it through their employer and 5 percent paying directly. Twenty-four percent were covered under federal programs: 13 percent under Medicare (those aged 65+ and some disabled), 10 percent under Medicaid (low-income), and 1 percent under military health care programs. Forty-six million residents (15% of the population) were uninsured. The government program CHIPRA, which offers coverage to certain populations of low-income children, was reauthorized and expanded in January 2009 and covers 7 million children.

What is covered?

Services: Benefit packages vary according to type of insurance, but often include inpatient and outpatient hospital care and physician services. Many also include preventive services and prescription drug coverage, and dental care coverage also is available. Beginning in January 2006, Medicare was expanded to cover outpatient prescription drugs. Medicaid, available to the elderly and the disabled, also covers nursing home and home health care.

Cost-sharing: Cost-sharing provisions vary by type of insurance.

How is the health system financed?

Medicare: Medicare is a social insurance program for the elderly, some of the disabled under age 65, and those with end-stage renal disease. Administered by the federal government, the program is financed through a combination of payroll taxes, premiums, and federal general revenues.

Medicaid: Medicaid is a joint federal-state health insurance program covering certain groups of the poor. Medicaid is administered by the states, which operate within broad federal guidelines. States receive matching funds from the federal government, varying among states from 50 percent to 76 percent of their Medicaid expenditures.

Private insurance: More than 1,200 not-for-profit and for-profit health insurance companies provide private insurance. They are regulated by state insurance commissioners. Private health insurance can be purchased by individuals, or it can be funded by voluntary premium contributions shared by employers and employees on an employer-specific basis, sometimes varying by type of employee. Employer coverage is the predominant form of health insurance coverage. Some individuals are covered by both public and private insurance.

Out-of-pocket spending: Out-of-pocket payments, including both cost-sharing insurance arrangements and expenditure paid directly by private households, accounted for 12 percent of total national health expenditures in 2007, which amounted to US\$890 per capita.

How is the delivery system organized?

Physicians: General practitioners have no formal gatekeeper function, except within some managed care plans. The majority of physicians are in private practice. They are paid through a combination of methods: charges or discounted fees paid by most private health plans, capitation rate contracts with some private plans, and fees paid by public programs. Insured patients are generally directly responsible for some portion of physician payment, and uninsured patients are responsible for all or part of the physicians' charges.

Hospitals: Hospitals can be for-profit, nonprofit, and public. They are paid through a combination of methods: perservice or per-diem charges, per-admission payments, and capitation.

Other providers (nursing facilities, home health agencies, et al.) are paid through a variety of methods that vary by provider type and by payer.

What is being done to improve quality of care?

Medicare is developing a variety of programs that seek to align financial incentives with quality of care, commonly referred to as pay-for-performance (P4P). The majority of private insurance providers also have a P4P program. In these programs, payment is tied to a set of quality measures on process of care, health outcomes, cost-efficiency, patient satisfaction, and/ or information technology. These programs are typically aimed at primary care physicians and, less often, specialists. Medicare is conducting several P4P demonstration projects aimed at hospitals and physician groups, and is developing approaches for smaller physician practices as well. Recently, Medicare stopped paying hospitals for the added costs of eight specific preventable events, such as operations to retrieve sponges or tools left inside a patient after surgery.

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, based on criteria including patient treatment, governance, culture, performance, and quality improvement. The National Committee for Quality Assurance (NCQA) is the primary accreditor of health plans. Accredited organizations must report annually on performance measures in over 40 areas and meet more than 60 standards. The American Board of Medical Specialties and the American Board of Internal Medicine provide certification to physicians who pass various quality standards.

The Centers for Medicaid and Medicare Services (CMS) has moved toward increased public reporting with Hospital Compare, which 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.

The Agency for Healthcare Research and Quality (AHRQ), funded by the federal government, conducts evidence-based research on practices, outcomes, effectiveness, clinical guidelines, safety, patient experience, HIT, and disparities.

What is being done to improve efficiency?

The government has funded several initiatives aimed at shifting from a specialist-focused health system to one that is primary care–focused. The Medicare Medical Home Demonstration project, begun in 2009, restructured reimbursement rates for participating providers so as to include coordination of care and other costs not currently covered. CMS is funding a number of initiatives aimed at "rebalancing" long-term care, shifting Medicaid resources from institutions toward community-based services. Innovation is common among private insurers and practices, but the large degree of fragmentation in the national health system poses a barrier to improving efficiency. Insurance administration costs are high, at 7.1 percent of total health expenditure in 2007. Large-scale coordination is difficult to achieve, and local or regional systems are often incompatible with each other. Widespread use of electronic medical records, for example, has developed more slowly than in most European countries. The large number of uninsured further complicates efforts to improve efficiency. The care they receive but do not pay for is generally absorbed by hospitals, resulting in higher costs throughout the system. Also, the uninsured's encounters with the health system tend to be more resource-intensive than those with regular care—for example, more emergency-room use and less preventive care.

How are costs controlled?

Annual per-capita health expenditure is the highest in the world—US\$7,290 in 2007. Total national health expenditures have been increasing at rates well above increases in national income, with total expenditures reaching 16 percent of GDP in 2007, and are expected to reach 21 percent by 2020 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 Medicare Modernization Act of 2003 included new provisions granting tax credits for Health Savings Accounts (HSAs) when coupled with highdeductible (\$1,000+) health insurance plans. HSAs allow individuals to save money tax-free to cover out-of-pocket medical expenses. Tax incentives plus double-digit increases in premiums have led to a shift in benefit design toward higher patient payments.

Medicare, Medicaid, and various private purchasers, including employer groups, are also experimenting with new payment incentives that reward performance. Strategies being implemented include "value-based" purchasing, which is intended to reward care systems or providers that provide higher-quality and more efficient care.

What recent system innovations and reforms have been introduced?

The American Recovery and Reinvestment Act of 2009 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. Nineteen billion dollars was directed toward developing health information technology (HIT), and will be distributed under the newly formed Office of the National Coordinator for Health Information Technology. One major initiative will be the creation of regional HIT extension centers to provide technical assistance, guidance, and information on best practices to support health care providers' use of electronic health records. Additionally, an investment of \$1.1 billion was made in research comparing the effectiveness of medications and medical devices. A list of priorities for comparative effectiveness research has been submitted by the U.S. Department of Health and Human Services to the President and Congress.

The concept of a "medical home"—where a patient can receive targeted, accessible, continuous, coordinated, and familycentered care by a personal physician—has gained interest among U.S. experts and policymakers as a model for strengthening primary care. Started in 2009, the Medicare Medical Home Demonstration project offers participating physician practices a care-coordination fee in addition to the current fee-for-service payments, as well as additional bonus payments based on quality and efficiency of performance funded through Medicare savings attributed to the project.

In 2006, the state of Massachusetts enacted an ambitious health reform, the first stage of which was to expand insurance coverage. The state implemented an individual mandate whereby all residents are required to have "minimal creditable coverage" and all medium-size and large employers must contribute toward their employees' premiums; failure for either to do so results in a financial penalty. Massachusetts now has one of the lowest uninsured rates in the country—4.1 percent in 2008. The second step of reform will attempt to overhaul the provider payment system—in July 2009, the Special Commission on the Health Care Payment System unanimously endorsed a move away from traditional fee-for-service payment toward the establishment of global payments across providers for each patient within a given timeframe, with incentives for quality.

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1 East 75th Street • New York, NY 10021 Tel: 212.606.3800

1150 17th Street NW • Suite 600 • Washington, DC 20036 Tel: 202.292.6700

