Chapter 7: Global Diversity of Health System Financing and Delivery

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INTRODUCTION

Health care systems are highly complex organizations, with many interdependent components. In developed countries, health systems have traditionally been classified by their type of financing—i.e., either predominantly tax-funded (such as the National Health Service in England and publicly operated regional care systems in the four European Nordic countries) or predominantly statutory social health insurance (SHI)-funded (such as in Germany, the Netherlands, and France). Over the past several decades, however, there has been structural convergence in the technical characteristics of both funding arrangements and in the associated delivery systems, making analytic observations about differences across national systems more difficult.

A second confounding factor has been that former Soviet Bloc countries in Central and Eastern Europe, including the Russian Federation, have, since 1991, replaced their former Soviet-style Semashko models (a top-down, national government–controlled funding and delivery structure with a parallel Communist Party administrative apparatus) with various hybrid arrangements built on national government–run SHI financing. Distinctions across developed country health systems, especially in Europe, have been further compressed by inadequate resources in many publicly funded systems in an era of rapid clinical and technological change, triggering increased private sector funding and provision.

In middle-income developing countries, institutional structures in the health sector typically reflect the country's preindependence administrative framework. Mexico, for example, has a Spanish-derived configuration with health insurance as part of social insurance for formally employed workers (via Instituto Mexicano del Seguro Social), supplemented by tax-funded health services (Seguro Popular) provided for those with informal employment and all other citizens, as well as a separate program (Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado) for public employees. Countries such as India and Egypt, reflecting British influence, have predominantly tax-funded and publicly operated health systems. China is an exception, with an internally generated system that is publicly funded and operated, although recent Communist Party policy has been to introduce SHI-based insurance with individual medical savings accounts (patterned after Singapore), promote private insurance, and expand private hospitals.

In lower-income developing countries, health services are typically provided by tax-funded public institutions, often with considerable inadequacies and sometimes with substantial copayments. It is important to note that governmentally organized systems in nearly all developing countries, as well as in former Soviet bloc countries and, to a lesser degree, in tax-funded developed countries, are supplemented to varying extents by a mix of private and/or employer-paid insurers and providers.

This chapter focuses on the individual patient care system: on the financing and delivery of individual clinical and preventive services. The individual patient care system is composed of the financing and delivery of necessary services to prevent death or serious harm ("rule of rescue"); to maintain quality of life; and to manage, reduce, and/or prevent the burden of illness on individual patients. While the technical dimensions of most clinical services are similar across countries, their organizational, social, and economic characteristics range widely. Health systems in both developed and developing countries exhibit substantial differences, for example, in access to care; in the design and reliance on quality assurance and provider payment mechanisms; in the relationship of primary care to hospital services; in the coordination of health care with home care and nursing home services; in the design and use of provider management strategies; in the way physicians work and are paid; in the decision-making roles of politically elected officials and of national, regional, and municipal governments; and in participation of both citizens and patients. These wide-ranging institutional and organizational characteristics reflect differing country contexts (geographical, social, economic, and political), differences in national culture (consisting of prioritized norms and values), and substantial variation in how health sector institutions are structured.

FINANCING INDIVIDUAL PATIENT CARE SERVICES IN DEVELOPED COUNTRIES

Funding for individual care services in developed countries comes from the particular national mix among four possible sources of revenue: national, regional, and/or municipal taxes; mandatory SHI; private health insurance (including employer-paid insurances); and out-of-pocket payments. Most countries have one preponderant payer, which then defines its funding arrangements and serves to frame the structure of its delivery system as well.

Total Health Expenditures

The Organization for Economic Co-operation and Development (OECD) data from 2017 (adjusted for purchasing power parities) show that total health care expenditures in developed countries vary across a considerable range, tied to health system structure as well as national history and culture (Table 7-1).

TABLE 7-1

Developed Country Total Health Expenditure (% GDP)

TAX FUNDED IN WESTERN EUROPE		SHI FUNDED IN WESTERN EUROPE		CENTRAL EUROPEAN		DEVELOPED ASIAN		DEVELOPED NORTH AMERICAN	
Ireland	7.2%	Belgium	10.3%	Latvia	6.0%	Singapore	4.5%	Canada	10.7%
Spain	8.9%	Netherlands	10.1%	Poland	6.5%	South Korea	7.6%	United States	17.1%
UK	9.6%	Germany	11.2%	Czech Republic	7.2%	Japan	10.9%		
Finland	9.6%	Switzerland	12.3%	Slovenia	8.2%				
Denmark	10.1%								
Sweden	11.0%								

Abbreviations: GDP, gross domestic product; SHI, social health insurance; UK, United Kingdom.

Source: The Organization for Economic Co-operation and Development (OECD) data.

Per capita health expenditure figures provide a different, specific measurement of available funds in a country's health sector (Table 7-2).

TABLE 7-2

Developed Country Per Capita Health Expenditures

TAX FUNDED IN WESTERN EUROPE		SHI FUNDED IN WESTERN EUROPE		CENTRAL EUROPEAN		DEVELOPED ASIAN		DEVELOPED NORTH AMERICAN	
Spain	$2738	Belgium	$4149	Latvia	$874	South Korea	$2043	Canada	$4458
Italy	$2738	Germany	$4714	Poland	$809	Singapore	$4083	United States	$9869
UK	$3958	Netherlands	$4742	Czech Republic	$1321	Japan	$4233		
Denmark	$5565	Switzerland	$9835	Slovenia	$1834				
Sweden	$5710								

Abbreviations: SHI, social health insurance; UK, United Kingdom.

Tax-Funded Systems

In the United Kingdom, 79% of all health care funding was furnished through general tax revenues allocated by the national government in its annual budget process (all figures from OECD for 2017). In Sweden, all public taxes combined raised 83.7% of total health care spending. Sweden's 21 regional-level elected governments provide approximately 70% of that 83.7%, with the remaining 13.7% of total health spending raised by national and municipal taxes. In Canada, 71% of total health spending was raised by tax revenues, with 66% of that 71% coming from provincial or territorial taxes, while 5% came from national and local government taxes.

In most tax-funded countries, a segment of the population also has individual-, company-, or union-purchased private complementary and/or supplemental insurance coverage. In Sweden, 2019 estimates are that about 600,000 individuals have private complementary policies in a total population of 9 million. In Denmark, 50% of the population purchase supplemental insurance, while 30% have complementary insurance (often purchased by employers) that pays for private sector services enabling them to bypass public sector queues. In Finland, many middle-class families purchase separate private health insurance for their children to enable them to bypass long waiting times for primary and secondary pediatric health care services. More than 400,000 Finnish children (in a total population of 5 million) have privately purchased policies. In England in 2015, individual-, employer-, and union-purchased private complementary insurance covered an estimated 10.5% of the population, or about 6 million people. In Canada, individuals are not allowed by law to purchase private complementary insurance (except for Supreme Court–ordered insurance for three backlogged surgical procedures in Quebec Province—2005 Chaoulli decision); however, approximately 65% of the population have employer-, union-, or private group–purchased supplemental insurance for non–publicly covered services such as outpatient pharmaceutical prescriptions and home care.

Social Insurance–Funded Systems

In Western Europe, SHI funds have traditionally been organized on a private not-for-profit basis, but with statutory responsibilities under national law. When former Soviet Bloc countries in Eastern Europe regained their independence in 1991, they returned to pre–World War II SHI models, but because there was no remaining organizational infrastructure, these post-1991 arrangements typically became a single SHI fund, run as an arm of the national government. In the United States, the Medicare social insurance system for citizens over age 65, enacted in 1965, is organized as a single fund tied to the national Social Security (public pension) Administration, an independent agency within the national government, with reimbursement arrangements supervised by the Centers for Medicare and Medicaid Services (CMS) inside the Department of Health and Human Services. Medicare covers inpatient hospital care plus limited post-hospital nursing home services (Medicare Part A). Supplemental private insurance policies are bought

by covered individuals to help pay for outpatient physician visits (Medicare Part B) and for outpatient pharmaceuticals (Medicare Part D).

In Germany, 85% of the population is enrolled in one of 120 not-for-profit, monthly premium–based private SHI funds. This figure includes all individuals with annual incomes below 54,500 euros, who are required by law to join an SHI fund, as well as those with higher incomes who choose to enroll or remain. Eleven percent of the population—all having annual incomes above the mandatory SHI enrollment ceiling of 54,500 euros—have opted out of the SHI system to voluntarily enroll in claims-based private health insurance, whereas 4% of the citizenry is enrolled in sector-specific public programs such as the military. Since 2009, all SHI members pay a flat tax on gross monthly income as a contribution (8.2% in 2018, up to an upper income limit of 49,500 euros), which is transferred by their SHI fund to a national pool, and then redistributed back to their chosen fund on an individual risk-adjusted basis. Employers send 7.3% of each employee's salary to the same national pool. Special arrangements exist for payments from self-employed, retired, and unemployed workers. Since 1995, there has been a separate mandatory social insurance fund for long-term care (LTC), with an annual premium of 1.95% of each adult's gross monthly income, split 50%–50% with their employer. Pensioners since 2004 are required to pay the full 1.95% from their pensions. Childless SHI enrollees pay a surcharge of 0.25% of monthly gross income. Overall, 78% of all health care expenditures in Germany were paid from public and/or mandatory private SHI sources.

In the Netherlands since 2006, all adult citizens pay a fixed premium (about 1453 euros in 2019) to their choice among 35 private health insurers (not-for-profit and for-profit), with four large insurance groups having over 1 million members each. In addition, employers pay 6.95% of salary below 51,400 euros for each employee into a national health insurance fund. Self-employed individuals pay 4.85% into the national fund for taxable income up to the same limit. Retired and unemployed individuals also make payments. In addition to the individual premiums paid to their choice of private insurance fund, payments from the national health insurance fund, adjusted by individual age, sex, and health characteristics, also are made to the individual's chosen insurer. The Netherlands has a separate mandatory social insurance fund for LTC (the ABWZ, since 2015 the WLZ, and now only for residential nursing home care) to which each employee pays 9.5% of taxable income beneath 33,600 euros every year. Self-employed, unemployed, and retired individuals also are required to pay premiums to the WLZ. Overall, including SHI revenues, public spending provided 87% of total health expenditures in 2014.

In Estonia, a former Soviet Republic that re-established an SHI system in 1991 upon regaining its independence, there is one national SHI fund that is an arm of the national government. This fund collects mandatory payments of 13% from salaried workers and 20% from self-employed individuals, covering both health care and retirement pensions. Overall, including SHI revenues, public spending accounted for 74.5% of total health expenditures in 2017.

Singapore, Japan, South Korea, and Taiwan have predominantly SHI systems of funding for individual care services. In these Asian countries (except Japan), there is one SHI fund that typically is operated as an arm of the national government.

In Singapore, starting in 1983, all employees up to age 50 have been required to place 20% of their income (employers add 16% more) into a personal health savings account to pay for direct health care costs, managed in their name by the Singapore government, called a Medisave account. Medisave accounts have a maximum amount, are tax-exempt, and receive interest payments (currently set at 4%). Consistent with a Confucian emphasis on family, the funds that accumulate in the Medisave account can be spent on health care for family members as well. If the accumulated funds are not spent on health care during the insured's life, they become part of the individual's personal estate and are distributed as a tax-free inheritance to his or her designated heirs. In addition, Singaporean citizens are also automatically enrolled into a second government-run health insurance plan called MediShield that pays for supplemental catastrophic, chronic, and long-term care. While citizens can opt out, 90% of citizens remain in the program. The Singapore government also operates a third, wholly tax-funded payer called Medifund that, with approval of a local neighborhood committee, will pay hospital costs for 3–4% of the population who are recognized as indigent. In part reflecting the high level of mandatory individual saving, public funding provided only 54.5% of total health expenditures in 2016.

In South Korea, a state-run SHI system was established in 1977, which in 1990 covered 30.9% of total health care costs. This percentage paid by the SHI system rose to 40.5% of total costs in 2017, with national tax revenue covering 16.9%, leaving out-of-pocket expenses at a relatively high 34.4% of total costs. Although there are legal ceilings on total out-of-pocket copayments for each 6-month period, over 70% of Korean adults purchase an additional private Voluntary Health Insurance policy to cover these additional direct expenditures. In 2000, three types of public SHI funds were merged into a single national state-run fund. As of 2018, 6% of an employee's salary must be paid as a social insurance contribution into this fund, with employees and employers each paying 50% of that amount. In 2008, an additional SHI fund was introduced to pay for LTC, operated by the main state-run SHI fund to reduce administrative costs. Contributions to the LTC fund are set at 6.55% of the individual's regular SHI contribution, coupled with 20% copayments for institutional care and 15% copayments for home care services.

The United States

There is no single preponderant source of health care spending in the United States. The federal government's CMS reported that, for 2017, private health insurance covered 34% of total health expenditures, Medicare (mandatory SHI program for all citizens over 65) covered 20%, Medicaid (a joint federal-state welfare program for low-income citizens) covered 17%, and out-of-pocket paid 10%. Sources of funds for these programs were 28% from the federal government, 17% from state and local governments, 28% from private households, and 20% from private business (e.g., employers). The World Bank set public funding in the United States at 50.2% of total health expenditures in 2017.

In 2010, the passage of the Affordable Care Act (ACA) extended privately provided but heavily regulated and federally subsidized health insurance to many low- and middle-income uninsured individuals and families. Since the same act reduced the availability of existing individually purchased private health insurance, the total increase in the number of newly covered individuals was less than expected. Insurance premium increases for 2017 rose from 20% to over 100%, depending on the particular state, with additional increases in up-front deductible requirements, raising questions about the long-term sustainability of the ACA initiative. The recent Republican administration sought to repeal major financial and tax elements of the ACA and to replace existing subsidy arrangements with a system of refundable tax credits toward the establishment of individual health savings accounts and/or purchase of private health insurance on open cross-state markets (currently, private health insurance in the United States remains controlled at the separate 50-state level of government).

DELIVERING INDIVIDUAL PATIENT CARE SERVICES IN DEVELOPED COUNTRIES

Hospital Services

In Europe, hospitals in both tax-funded and SHI-funded health systems are mostly publicly owned and operated by regional or municipal governments. In tax-funded health systems, most hospital-based physicians are civil servants, employed on a negotiated salary basis (often by a physician labor union), and subject to most of the usual advantages and disadvantages of being a public sector employee. There are somewhat more private hospitals in SHI-funded health systems. However, most larger hospitals are public institutions operated by local governments, and most hospital physicians (with the notable exception of the Netherlands, where they are private contractors organized in private group practices) are, like those in tax-funded systems, public sector employees. In most tax-funded European countries (but not continental SHI-funded countries), few specialist physicians have office-based practices, and in both tax- and SHI-funded systems, office-based specialists do not have admitting privileges to publicly operated hospitals.

Most public hospitals in both tax-funded and SHI-funded health systems are single free-standing institutions that can be classified into three broad categories by complexity of patients admitted and number of specialties available: (1) district hospitals (four specialties: internal medicine, general surgery, obstetrics, and psychiatry); (2) regional hospitals (20 specialties); and (3) university hospitals (>40 specialties). In addition, many countries have a number of small, 15- to 20-bed, freestanding, private (typically for-profit) clinics. Recently, some tax-funded countries have begun to merge district and regional hospitals in an effort to improve the quality of care and create financial efficiencies (for example, Norway; planned for Denmark, also for Ireland; however, failed Parliamentary passage and brought down the coalition government, in Finland in 2019). Institutional mergers can be difficult to negotiate among publicly operated hospitals, due to the role that these large institutions play as important care providers and as large employers in smaller cities and towns, especially given political and union concerns about maintaining current employment levels. In the United States, financial and reimbursement pressures triggered by the implementation of the 2010 ACA have generated a number of private sector hospital mergers into larger hospital groups.

In tax-funded health systems, publicly funded patients who are admitted for an elective procedure cannot choose their specialist physician (except private-pay patients in "pay beds" in National Health Service [NHS] hospitals in England). Specialists are assigned by the clinic to a patient based on availability, with both junior and senior doctors placed in rotation.

Capital costs (buildings, large medical equipment) are publicly funded in all tax-funded systems and in most traditional SHI systems. For example, in Germany, capital costs for public hospitals are paid for by the regional governments. As a result, new capital investment is often allocated politically, according to location and political priorities. In Finland, local politicians in the 1980s would say that it "takes 10 years to build a hospital," meaning that it took that long to become a political priority for the regional government that controlled capital expenditures. Local politicians would therefore regularly overbuild when they got their one opportunity to obtain new capital.

Recently, efforts have been made to make public hospitals more responsible for their use of capital. In the Netherlands, public hospitals were shifted into private not-for-profit entities that are expected either to fund new capital from operating surplus or to borrow the funds from a bank based on a viable business plan. In England, more than 100 hospitals have been built using the Public Finance Initiative (PFI) program, in which private developers build turn-key facilities (thus taking capital costs off the public borrowing limit), and then rent these facilities back to the NHS and/or the relevant NHS Foundation Trust. In Sweden and Finland, while capital equipment is now a cost on hospital operating budgets, large new capital equipment and major building renovations remain politically driven processes often with extensive delays. In Stockholm County, the New Karolinska University Hospital opened in 2018 was built and is managed by a separate nonprofit public-private company.

In Singapore and South Korea, both of which are SHI funded, larger hospitals are publicly operated. However, there are a substantial number of smaller private clinics typically owned by specialist physicians. In the United States, the passage of the 2010 ACA has triggered the selling of many private specialist group practices to hospital groups, transforming previously independent practicing physicians into hospital employees.

Primary Care Services

Most primary health care in SHI-funded health systems, and also in an increasing number of tax-funded health systems (except in low-income areas of some large cities), is delivered by independent private general practitioners (GPs), working either individually or in small privately owned group practices. Recent changes in tax-funded health systems include Norway, where most primary care moved from municipally employed physicians to private-practice GPs in 2003, and Sweden, where, following a 2010 change in national reimbursement requirements, new privately owned not-for-profit and for-profit GP practices were established and now deliver 50% of all primary care visits.

In England, most primary care physicians are private GPs who are contractors to the NHS, working either independently or in small group practices. These private GPs own their own practices, which they can sell when they retire. However, as part of the original agreement to convince physicians to support the establishment of the NHS in 1948 (which most physicians strongly opposed), private GPs also receive a national government pension upon retirement. In the inner cities in England, there are some larger primary health clinics.

In 2001, England's private primary care doctors were organized into geographically based Primary Care Trusts (PCTs). These PCTs were allocated 80% of the total NHS budget to contract for elective hospital services required by their patients with both NHS hospital trusts as well as private hospitals. In 2013, PCTs were restructured into Clinical Commissioning Groups with similar contracting responsibilities.

In 2004, the Quality Outcomes Framework (QOF) was introduced as a quality of care–tied approach to providing additional income for NHS GPs. This regulatory mechanism in 2010 set 134 different standards for best practice primary care in four main domains: 86 clinical, 36 organizational, 4 preventive service, and 3 patient experience. GP income grew on average by 25% through the introduction of the QOF, with general practices averaging 96% of possible QOF points. Total spending on QOF in 2014 in England consumed 15% of all primary care expenditures.

In April 2019, a slightly revised QOF contract was implemented, which retired 28 low-value indicators, introduced 15 new more clinically appropriate indicators, added two Quality Improvement modules, and added a new personalized care adjustment option. Funding was only changed marginally.

Access for individuals to primary care services is considered good in SHI-funded systems such as those in Germany and the Netherlands. One often-cited reason is that private office-based physicians (both GPs and specialists) in these countries are paid on a modified fee-for-service basis. In Germany, office-based physicians are paid on a quarterly basis by the Sickness funds, acting jointly at the Länder (regional) level through a point-based system. A national agreement between the physician association and the association of sick funds establishes points for each clinical act. Similarly, the association of sick funds (led in each of Germany's 16 Länder by the fund with the most subscribers in that region) establishes a fixed budget for all office-based physician services for all sick fund patients each 3-month period. Retrospectively at the end of each period, the total number of points is divided into the sick funds' fixed allocation for office-based physicians for that Länder for that quarter, establishing the value of a point for that quarter. Subsequently, each office-based physician's point total is multiplied by that quarterly point value, resulting in that physician's total payment from the statutory sick funds.

In contrast to SHI systems, seeing a primary care doctor in a number of tax-funded health systems has become increasingly difficult over the past decade. In Sweden, in 2005, a "care guarantee" was introduced that required its predominantly publicly operated health centers to see a patient within 7 days after calling for an appointment. In Finland, where public primary health care centers used to provide most primary care visits, delays in getting public health center appointments have pushed up to 40% of all visits into a parallel occupational health system, as well as to publicly employed primary care physicians working privately in the afternoons.

In England in 2019, access to GP services has been labeled a "crisis," aggravated by a 6% fall in the number of practicing GPs, leading to delays of up to 30 days for an appointment in urban areas like London. A 2019 report by the King's Fund found that only 1 in 20 trainee GPs planned to work full time. Also in 2019, the Nuffield Trust published a report suggesting that future planning for primary care services in England should assume a permanent shortage of GPs, requiring large numbers of new nurse practitioners and other auxiliary personnel. In Central European countries that were formerly within the Soviet Bloc, primary care provision had to be newly established after independence was regained in 1991, since first-line care in the former Semashko model was provided in specialist polyclinics. Primary care doctors rapidly emerged as almost entirely private for-profit GPs, working on contract from the national SHI fund (Estonia, Hungary, North Macedonia), from state-regulated private insurance companies (Czech Republic), or from regional/municipal public payers (Poland). Private GPs in most Central European countries now are paid on a per-visit-tied basis. This arrangement was heavily influenced by the structure of primary care in Germany, where private office-based GPs are paid according to a point-system-tied framework.

In Asian countries such as Singapore, South Korea, and Japan, most primary care is provided by private for-profit GPs working independently or in small group practices. Private GPs are reimbursed at a set per-service fee by the national SHI fund(s). Access to primary care physicians is considered good.

Developed countries have varying policies regarding access to individual preventive services. Health systems in most countries provide vaccinations and mammography as part of funded health care services. In the United States, most insured individuals—and in Canada, most covered residents—automatically receive an annual physical exam including full blood profiles. In Norway and Denmark, adult physical exams are provided only upon special request by the individual, and in Sweden, adult physical exams are provided only to pregnant women. In Sweden, adults who wish to know their cholesterol or prostate-specific antigen (PSA) levels have begun to purchase blood tests out-of-pocket from private laboratories. In England in 2019, the NHS announced it would stop providing PSA screening tests for prostate cancer, even to men who requested one, similarly forcing concerned patients to purchase private laboratory testing.

Patients must make copayments to see a primary care doctor in some tax-funded health systems and in most SHI countries. In tax-funded systems, for example, Swedish patients are required to make a county-council-set copayment for each primary care visit up to a national-government-set annual ceiling, after which ambulatory visits (both primary and outpatient specialist) are not charged. Finland has a fixed copay for public health center visits, while Denmark's private GP visits do not have a copayment. In England, there is no copayment for GP visits.

In SHI health care systems in Europe and in Asia, patients usually are responsible for a copayment for both primary and office-based specialist care. To defray these charges (and to pay for other nonfunded services), a high percentage of citizens typically purchase additional supplemental health insurance. In France, where 95% of patients in 2015 purchased private supplemental insurance, patients paid directly the full fee for 65% of outpatient primary and specialist services, reimbursed subsequently by both their SHI fund and their supplemental insurance carrier for all payments (after deductibles), while for 35% of services (for low-income individuals and certain high-cost procedures), full agreed prices were paid directly to providers by SHI.

Access to Elective Specialist Care

Approximately half of all European health care systems have a gatekeeping system that requires referrals from primary care physicians in order to book hospital specialist visits (for publicly paid visits). In most tax-funded health systems (although not in most SHI systems), there are substantial waiting times, typically several months or more, for elective specialist appointments as well as for high-tech diagnostic and treatment procedures. Waiting times can be particularly long for cancer and other elective surgical or high-demand services. In Sweden, government figures from the summer of 2017 showed that, nationally, only 5–10% of prostate cancer operations were performed within 60 days after diagnosis.

In the English NHS, waiting lists for elective surgery in 2019 were often 6 months or longer. In August 2017, there were over 4,000,000 patients on NHS waiting lists. In January 2018, what administrators termed "a severe flu season," during which hospital emergency rooms were overwhelmed with elderly patients requiring admission, led to a national-level NHS decision to cancel all elective operating room procedures in all hospitals in England (>50,000 procedures in 1200 hospitals) for the entire month of January, further lengthening waiting lists. Regarding quality of care, again in England, a March 2018 report from the national Office of Health Economics found that, in 2016 and 2017, up to three-quarters of patients who could have undergone keyhole procedures were forced to undergo open surgery, resulting in an estimated 1 million procedures each year that were more invasive than clinically necessary.

Delays in some tax-funded systems also are procedural. In England, for example, a patient who requires a further consultation with a second specialist typically has to return to their primary care physician for a second referral and then has to wait in the regular patient queue for that second appointment.

There is also substantial waiting time for radiologic imaging services in most tax-funded systems. In Malta, the tax-funded health system's recent efforts to prioritize elective MRI investigations have succeeded in reducing waiting times from 18 months to 4 months. In both the Alberta and British Columbia Provinces in Canada, waiting times for a publicly funded nonemergency MRI can extend up to several months, whereas privately paid MRIs were available in both provinces within 1 week.

This issue of waiting times for specialist services in tax-funded health systems reflects a combination of growing demand (increasing/aging populations and changing clinical indications), financial constraints, and insufficient capacity, including inadequate physician working hours. For example, in the 1980s, when several surgical procedures for the elderly became more routine practice (e.g., hip replacement, coronary artery bypass graft, corneal lens implantation), the waiting list problem worsened. It had been mitigated somewhat through increased service capacity by the early 2000s, only to return as a growing policy challenge once public sector financial resources became constrained again after the 2008 global financial crisis. Timely cancer diagnosis and care continue to be a particularly sensitive issue, with tax-funded systems often taking several months for a patient to see an oncologist and then months more to begin treatment. In 2013 in Sweden, a newspaper journalist set off a political storm when he described women patients in one large county council (Malmo) who had to wait more than 40 days to receive the results from their breast cancer biopsy. In September 2019 in England, only 76.9% of patients with suspected cancer began treatment within 2 months of an urgent referral from a GP.

In response to pressure from national patient associations, a number of tax-funded health care systems introduced maximum waiting times for elective hospital procedures in the early 2000s. (Most Western European SHI systems do not have long waiting times or treatment guarantees for hospital care.) These maximum waiting times typically include initial primary care visits as well as specialist evaluations and treatment. In Denmark, a patient has the right to go to a different Danish public hospital for care after waiting 30 days without treatment. In Sweden, under the 2005 "waiting time guarantee," an untreated patient's local county council is required to pay for care in another county's hospital after 180 days. In a parallel process at the European Union (EU) level, beginning in 1997, the EU Court of Justice steadily expanded the right of all EU citizens to travel to another EU country in order to receive "timely" care, with their home country health system required to pay for that care.

In private not-for-profit SHI-funded health systems such as in Germany and Switzerland, waiting times for specialist visits and hospital procedures are typically a few weeks to 1 month. In the SHI system in France, which is more centrally organized and funded (part of the Napoleonic tradition of public administration), ongoing disputes about insufficient central government funding for public hospitals and staff salaries led in March 2019 to 9 months of hospital staff strikes, particularly in accident and emergency departments. In November 2019, the national government announced that it would take over 10 billion euros in public hospital debt as part of an effort to reverse staff cutbacks, bed and operating theater closures, and personnel flight to the private sector.

Long-Term Care Services

LTC (consisting of residential and home-based services) consumes a relatively small but increasing proportion of gross domestic product (GDP) in developed countries. In 2016, Norway (2.95% GDP), Sweden (2.87% GDP), and the Netherlands (2.64% GDP) all spent more than one-fourth of their total health expenditures on LTC (Eurostat and OECD figures). More than one-fifth of all health care expenditures went to LTC in Belgium (2.16% GDP), Ireland (1.55% GDP), and Denmark (2.5% GDP). Lower-spending countries included the United Kingdom (18% of health expenditures; 1.75% GDP), Germany (12% of expenditures; 1.33% GDP), and Spain (9% of expenditures; 0.81% GDP). In the United States, official figures put total LTC expenditures in 2016 at 4.9% of total health expenditures, or 0.9% of total GDP. (Note that these figures do not include emergency, inpatient, or outpatient hospital costs generated by elderly patients.)

Since nursing home care is more expensive than home care (nursing home care requires the provision of housing, food, and around-the-clock care providers), government policymakers seek to keep the elderly and the chronically ill out of nursing homes for as long as feasible. Moreover, in developed countries like Sweden, Norway, and the United States, some 70% of all home care services come from informal caregivers: spouses, children (typically daughters), neighbors, and nonprofit community groups. While some SHI systems (e.g., Germany) have separate public LTC insurance (funded by mandatory premiums paid by all adults) that make available cash payments for LTC that can be used to compensate informal caregivers, most policymakers work hard to not monetize what is a large amount of essentially free care. Indeed, policymakers actively seek to encourage those providing these services to continue to do so as long as possible, trying to postpone caregiver burnout by providing support services

such as free respite care, special call-in lines for caregiving advice, pension points toward retirement for the informal caregiver (Nordic countries), and free day-care center services.

In most tax-funded and SHI-funded European countries, home care services are organized at the municipal government level. In tax-funded systems, these services are also delivered mostly by municipal employees, working according to union-negotiated protocols. In some European SHI systems, and recently in tax-funded Sweden and Finland, private companies also provide home care services on contract to municipal governments. In combination with national legislation, these municipal systems also provide important support for informal caregivers, since the financial costs of caring for adults in their own home are substantially less than providing housing, food, and caregiver support in publicly funded homes for the aged or in nursing homes.

A high proportion of nursing homes in European tax-funded and SHI-funded health systems are publicly owned facilities operated by municipal governments; in some instances, in SHI-funded systems (Israel, the Netherlands), they are operated by private not-for-profit organizations. Recently, in some tax-funded systems (e.g., Sweden), private for-profit chains have begun to open nursing homes that are funded on a contract basis with local municipal governments. Costs for nursing home care can be expensive: in Norway, the cost per patient is often over $100,000 per year in a publicly funded home, with the patient responsible for paying up to 80% depending on the family's economic status. In Sweden, patients living in publicly funded nursing homes in Stockholm County pay a relatively small official fee, but they also pay room rent and up to 2706 Swedish krona (SEK) per month (about $270 U.S. dollars [USD]) for food out of their monthly public pension payments.

In 2012, in an effort to reduce demand for expensive hospital and nursing home services, Norway and Denmark began elderly care reforms that shifted service delivery as well as funding responsibilities to municipal governments. Among innovations in Norway, municipalities are required to establish a municipal acute bed unit (MAU) to treat stable elderly patients and provide observation beds for evaluation. Partial funding for these units is provided by the four public regional health care administrations. Some municipalities have also embedded primary care units inside their regional hospital to arrange discharge and to coordinate care for the chronically ill elderly. Norwegian municipalities are also responsible through their contracted (mostly private) primary care physicians to implement the National Pathways Program, which established treatment protocols for cross-sector conditions such as diabetes and cardiovascular conditions.

A differently configured structural innovation to better integrate LTC for the chronically ill elderly with clinical individual health services has been to consolidate both social and health care services within the same public administrative organization. In 2019, as part of health reforms in Ireland and Denmark and a proposed (unenacted) reform in Finland, as well as a pilot decentralization program in England for 2.8 million people in Greater Manchester, social and health care programs are to be administered by a single responsible agency.

In the SHI-funded system in the Netherlands, almost 7% of the population live in a residential home. National government legislation revised the structure of nursing home funding and care in 2015. Three acts restructured the separate public LTC SHI fund, which requires mandatory payments by 100% of Dutch adults, and introduced delivery-related reforms that reduced the number and overall cost of nursing home patients paid for by the fund. Determination of eligibility for public payment for nursing home care is now made by an independent national assessment body (the Centre for Needs Assessment). Moreover, municipal governments now play a stronger role in funding and delivering home care services. The reforms created social care teams that hold "kitchen table talks" to steer the elderly first toward seeking care from family, neighbors, churches, and other local community organizations before they qualify for publicly paid in-home care. In 2012, some 1.5 million people (12% of total population) provided informal care to ill or disabled persons, averaging 22 hours per week of care per person.

Home care recipients in the Netherlands can choose to set up a "personal budget," using their public funding allocation to select their preferred individual care personnel (either publicly employed or publicly approved private providers). This arrangement also enables these home care recipients to determine the particular mix of services they want, as well as to augment the allocated public funds with personal funds. A number of innovative not-for-profit nursing homes have been created to provide additional services to elderly living in their neighborhood (primary care home visits), as well as terminal hospice care (e.g., the Saffier De Residentie Groep residences in The Haag).

In the United States, nursing home and home care are funded and delivered in a variety of different ways. For individuals who have minimal financial assets, nursing home costs are paid by a joint federal-regional (state) welfare program called Medicaid. Most state government Medicaid programs pay out more than 40% of their total budget for nursing home care. In the past, Medicaid did not pay for home care services. However, some states have programs with private for-profit and not-for-profit providers that provide home care as a way to forestall the need for the more expensive nursing home care.

Many private individuals take out private LTC insurance, typically from commercial insurance companies. These policies require individuals to make premium payments for years in advance (often 20 or more) before the individual learns whether they will, in fact, require home or nursing home care. Some private insurers have also raised premiums after individuals have paid in for many years and canceled policies if the new higher rate is not affordable. The 2010 ACA contained a new public LTC insurance program. However, the program was designed to be voluntary, and U.S. Department of Health and Human Services administrators decided in 2013 not to implement that portion of the law.

In addition to the tax-funded Medicaid program and privately purchased LTC insurance, many middle-class families pay for care from savings, by selling the elderly person's home, or by direct contribution from children and other family members. Expenses can reach between $60,000 and $100,000 per year depending on the location of a facility and who operates it.

Nursing home care in the United States is provided by a wide mix of private not-for-profit and for-profit providers, ranging from church-owned single-site homes to large stock market–listed companies. Many of these homes are purpose-built as assisted-living or memory-care facilities. Home care services are delivered by a mix of private not-for-profit and for-profit providers.

In Japan, a national LTC insurance fund was introduced in 2000. Although the new fund applies uniformly across the country, the program is administered by municipal governments and the premium level differs across municipalities, with an average monthly premium of 3000 yen (about $30 USD). In South Korea, an SHI fund for LTC is funded by mandatory contributions of 4.78% of a person's regular national health insurance contribution, with an additional 20% of total LTC expenditures provided by national government funds. The client copayment for home care is set at 15% of expenses and at 20% for residential care.

PHARMACEUTICALS

Pharmaceutical expenditures in developed countries (inpatient and outpatient combined) vary widely across different health system types, as well as between different countries within each institutional type. OECD figures for 2018 show drug expenditures in tax-funded countries in Western Europe ranging from 6.3% of total health expenditures (THE) in Denmark to 11.9% of THE in the United Kingdom and 18.6% of THE in Spain. In SHI-funded Western European systems, pharmaceuticals absorbed 7.5% of THE in the Netherlands, while in Germany, that figure was 14.1%. In the hybrid tax-funded SHI systems of Central Europe, the pharmaceutical percentage of THE is higher: 18.2% of THE in Estonia to 27.9% of THE in Hungary. Similarly, in Asian SHI systems, pharmaceuticals consumed 20.7% of THE in South Korea and 18.6% of THE in Japan. The OECD's 2018 figures for pharmaceutical spending in North America are 12.0% of THE in the United States and 16.7% in Canada.

Contributing factors to this wide-ranging variation are (1) differences in national practice and prescription patterns reflecting differing cultural expectations; (2) the ratio problem (relatively fixed level of pharmaceutical costs due to international prices—the numerator—divided by a greatly varying per capita health expenditure cost in different developed country health systems); (3) the range and type of pharmaceutical price controls in each country; and (4) the degree of limitation placed on pharmaceutical supply, tied to formularies and/or explicit forms of drug rationing.

Most European health systems have tight national controls on the cost and, in some tax-based countries, on the availability of pharmaceuticals. Most European countries also use a number of different regulatory measures to limit prices and/or availability of both inpatient and outpatient drugs, including mandatory generic prescribing, reference pricing, patient copays (sometimes with an annual ceiling, after which copayments are no longer required), and (particularly in tax-funded systems) national formularies tied to clinical effectiveness. Norway, for example, allows only about 2300 different preparations—including dosage, delivery method, and box size—to be stocked by pharmacies. Prices for drugs can vary considerably across different European countries, tied to economic development and domestic pricing patterns. One consequence of these differential national pricing controls has been the development of a parallel import market, in which drug wholesalers and pharmacists in the more expensive countries purchase supplies from a cheaper market elsewhere in Europe.

Access to expensive drugs has also been intentionally limited in some tax-funded health systems in Europe. One basis for rationing has been rationing tied to quality-adjusted life-years (QALYs). Rationing also reflects a clash between strained public drug budgets and public pressure. For example, in the case of cancer drugs in England, the recommendation of the National Institute for Health and Care Excellence (NICE) against funding the breast cancer drug trastuzumab (Herceptin) was subsequently overturned by the Minister of Health. Expensive cancer drugs continue to be rationed in England where the NHS Cancer Drug Fund, established in 2011 to provide access to non-NHS-provided drugs on a case-by-case basis, ran out of funds in 2015, forcing it to drop 25 of 83 covered drugs and close down for 3 months to restructure its operations.

As part of earlier medical patterns in Asian countries, office-based physicians traditionally filled prescriptions as well as prescribing drugs to patients. These sales also served to supplement their income in a setting of relatively low per-visit payments from state-run SHI funds. Concerned about cost and overuse, both Taiwan (in 1997, except for emergency cases or rural regions) and South Korea (for the whole country in 2003) implemented "separation reforms," which ended these physician sales. In Japan, a series of fee and reimbursement reforms have trimmed the percentage of all prescriptions dispensed in 2016 by physicians to 26% of prescriptions filled.

GOVERNANCE AND REGULATION

Health care services in developed countries are steered, constrained, monitored, and (to varying degrees) assessed by governments and governmentally established and/or empowered bodies. Although these measures apply particularly to the financial efficiency of government-funded services, they also seek to promote patient and community safety, equity of access, and high-quality clinical outcomes. This oversight is often strongly focused on privately operated and contracted providers and insurers, although in principle, it applies to publicly operated organizations as well.

Governance consists of macro national-level policy, meso institutional-level management, and micro clinic-level care decisions. This complex mix of governance decisions is often shared among different national, regional, and local governments, depending on the degree of centralization, decentralization, or, recently, recentralization (e.g., Norway and Denmark). While most systems officially prioritize "good governance," governance activities frequently comingle with political objectives as core policy concepts are developed and transformed into concrete organizational targets.

In Sweden, health system governance is shared among national, regional (county), and local municipal governments. The national government has responsibility to pass "frame" legislation, which establishes the basic structure of the system. To cite one example, until recently, the national government had limited an adult patient's total copayments for outpatient physician care (specialist and primary care) and pharmaceuticals to 2800 SEK (about $280 USD) for a 12-month period. The 20 regional governments, in turn, made policy decisions within that legislation, deciding how to apportion the specific copayments for each primary care and specialist outpatient visit. Since Swedes can self-refer to specialists, some counties double the copayment to hospital-based doctors to discourage unnecessary appointments. Similarly, fiscal policy normally is shared between the regional government, which raises about 70% of total health expenditures through its own county-set flat income tax, and the national government, which provides additional purpose-tied funds for national objectives such as consolidating open-heart surgery across county lines as well as supplementing lower tax receipts in rural counties with smaller working populations. However, this normal funding relationship across governments can change. In the early 1990s, the national government placed a "stop" on raising county taxes prior to Sweden's admission in 1995 to the EU. In 2016, each of the 20 counties could set their own ceilings, which were almost all at 3300 SEK (about $330 USD).

In Spain's tax-funded health system (71.1% publicly funded in 2015), 17 regional "autonomous communities" were given full managerial responsibility for the provision of health services in a 1990s decentralization process, along with ownership of all publicly operated hospitals. The national government generates a substantial proportion of health care resources, which are included in the broad block grants it allocates to the regional governments, which then add regional tax revenue to make up the full public sector budget. In a mechanism to steer regional government operating policies in this decentralized environment, the national Spanish government established a joint federal-regional council to review quality and performance data (through the 2003 Health System Cohesion and Quality Act). Italy's tax-funded health system (75.8% publicly funded in 2014) similarly shares governance responsibilities between national and regional governments. Health services are provided by local health authorities (Azienda Sanitaria Locale) supervised by 20 regional governments within a nationally established governance framework, financed through a complicated mix of national and nationally stipulated but regionally collected taxes. Again, like Spain, the national government established a federal-regional government council, seeking to better coordinate care standards and information among the regions and with national government agencies. In 2006, the national government imposed strict financial plans on 10 regions that were systematically in deficit.

In Germany, where funding for its SHI-based health system is predominantly the responsibility of 120 private not-for-profit sickness funds, governance decisions are shared among these private sector sickness funds and public sector national, regional, and municipal governments. The sickness funds receive a risk-adjusted premium payment for each enrolled individual, according to a national government–determined formula, and from a national government–run health insurance pool. Most hospitals are owned and operated by municipal governments, while investment capital for structural renovations and new building comes from the 16 regional Länder taken from their tax revenues. Payment frameworks and amounts for public hospitals are negotiated between associations of these municipally owned hospitals and associations of the private sickness funds, without formal government participation.

Regulation is an essential element of an effective health care system and a key component of overall health system governance. Regulation

incorporates both broad standard requirements that affect all organizations that operate in a country (e.g., hiring, firing, and wage decisions) as well as specific health sector–related regulations (e.g., proper handling, use, and disposal of low-grade nuclear waste from radiation treatments). Recent examples of health sector regulation in England, for example, include the following:

1. Requiring all cancer drugs adopted for use in the NHS to cost no more than $41,268/QALY;
2. Requiring in their employment contract that junior doctors in hospitals work a specific number of Sundays; and
3. Requiring that all emergency department patients receive care within 4 h of their arrival.

A powerful tool that has the force of law, regulation can have substantial negative as well as positive effects. A well-known political science corollary of regulatory power is that "the right to regulate is also the right to destroy." For example, in the United States, the federal Environmental Protection Agency, as part of its pursuit of cleaner air, issued wide-ranging regulatory orders setting performance standards that resulted in the closing of many West Virginia coal mines, with the loss of tens of millions of dollars of productive capacity and thousands of high-paying jobs, and likely contributing to social conditions that helped spawn that state's high rates of opioid abuse among unemployed males. Similarly, in some tax-funded European systems, such as those in Sweden and England, there is growing pressure from public health advocates for national regulations to prohibit the making of a profit from publicly paid funds. In Sweden, the national government's Reepalu report in 2016 honored a pledge made by the Social Democratic government to its Left (socialist) Party ally by calling for a legislated ban on profit-making in the provision of publicly funded health care services. The report's publication triggered substantial divestment of existing investor-owned primary care, nursing home, and home care companies.

FUTURE CHALLENGES

Health systems in developed countries face continued challenges in the coming years. These include financial, organizational, and policy dilemmas for which institutionally viable, financially sustainable, and politically supportable solutions will be complicated to develop and difficult to implement. On the delivery side, a key question is whether privately structured GP-based primary care is more efficient and effective than various clinic-based forms of primary care services. Recent movement in Northern and Central Europe toward more private GPs, along with continued private office–based primary care in much of Canada, the United States, and economically developed countries in Asia, raises complex policy issues for international organizations like the World Health Organization (WHO), as well as national policymakers. In the hospital sector, existing levels of clinical quality and patient responsiveness in publicly operated command-and-control institutions will increasingly have to compete with those of semi-autonomous public hospitals, as well as various types of private, sometimes very innovative providers. In the financing arena, continued pressure on publicly raised health system revenues is likely to erode longtime commitments in some tax-funded health systems to minimal patient copayments and low out-of-pocket funding.

An additional set of challenges will arise from recent commitments by international organizations like WHO to restructure health systems in developed countries to better address the social determinants of health. This new, incomplete strategy calls for a dramatic expansion of health sector responsibility to include a wide range of existing institutional arrangements in housing, education, work-life, and social and political decision-making. The influential 2010 Strategic Review of Health Inequalities in England entitled "Fair Society, Healthy Lives," led by Sir Michael Marmot, a British epidemiologist, called for the elimination of all "inequities in power, money, and resources." Separate from the political dimensions of this proposed new paradigm, how such fundamental societal change will be funded and implemented has yet to be addressed.

Looking forward, among the most essential challenges to national decision-makers in the coming period will be four specific health system imperatives:

1. **Finding a more sustainable balance between ethics and funding.**

   Policymakers in publicly funded health systems face a growing gap between patient expectations of high-quality clinical care, staff expectations of better compensation, and the economic imperative of no new taxes. Recent research has suggested that SHI-funded health systems, faced with increasing aging and thus proportionally fewer employed, face a similar gap. While the present solidaristic foundation for raising collective revenues is insufficient, available nonsolidaristic tools (copayments, supplemental insurance, private pay) inevitably contribute to overall inequality. But what then are the realistic policy alternatives? The minimalist new policy goal necessarily will have to become one of raising new revenues while doing the least economic and social harm.

2. **Developing better strategies to steer provider diversity.**

   Health systems in developed countries are becoming more diverse with more and different types of public owners: hospital trusts, state enterprises, and mixed public-private hospital owners/managers. There also are more and different types of private providers: not-for-profit community groups, foundations, and cooperatives, as well as for-profit small local entrepreneurs, large international companies, and risk capital funds (venture capital). Furthermore, new innovative delivery models are reorganizing traditional service boundaries: not-for-profit private nursing homes in the Netherlands also provide outpatient primary care to neighborhood elderly patients, as well as hospice care; Israeli technology companies combine high-tech home-based patient monitoring with standard medical and custodial home care services. Public pressure from citizens for more choice and better outcomes will pressure policymakers toward new, more accommodative health system arrangements. A 2019 national government report in Sweden on the hospital sector recommended a new emphasis on better access to out-of-office hours and out-of-hospital acute care by private as well as public providers.

3. **Ensuring better coordination between social and health services.**

   Tax-funded and SHI-funded systems alike are under intense policy pressure to develop better strategies to integrate services for the chronically ill elderly, as a way to improve the quality of services that these patients receive and to keep them at home healthier and longer, reducing expensive acute visits to hospitals and emergency departments. The clear delivery system goal will increasingly be to keep the elderly out of nursing homes and acute care facilities for as long as possible.

4. **Building labor unions into provider innovation.**

   In many developed countries, health sector staff, including hospital physicians, are members of labor unions. Effective policymaking will require finding mechanisms to build these personnel unions into accelerated health system restructuring processes. This process will necessarily involve integrating unions into more innovative, flexible, fiscally sustainable organizational arrangements with contracts that reward active participation in organizational change, contracts that pay incentives to more productive employees, quicker reassignment and redundancy procedures (firing health sector workers can take a year or longer in some European health systems), and establishing profit-sharing payments to teams/unions, also in public sector organizations.

While the structure and complexity of resolving these specific organizational challenges will vary depending on a country's cultural and institutional context, the commonality of these problems suggests that health systems in the developed world require a new, broader range of targeted policy strategies and solutions.

FINANCING AND PROVIDING HEALTH SERVICES IN DEVELOPING COUNTRIES

Health systems in developing countries reflect a complex combination of the same core elements found in developed country systems (hospitals, primary care facilities, medical staff, pharmaceuticals) adapted to different, widely varying organizational, social, political, and economic contexts and conditions **(See also Chap. 474)**. System structure and provider institutions typically vary by differing national characteristics including historical relationships (Anglophone/Francophone/Hispanic/Soviet Semashko/American institutional and educational links); GDP and per capita annual national income (low- or middle-income developing countries); political norms and values; and ethnic and/or cultural mix. Predominantly public sector funding, particularly in lower-income countries, typically generates substantially lower levels of resources per capita than in developed countries and tends to be less reliable, particularly in countries where the economy is dependent on commodity exports.

Service delivery arrangements in developing countries, in turn, typically have higher provider-to-population ratios as well as, in public sector institutions, more mixed quality of care. In a number of middle-income developing countries, migration of trained medical staff to practice in higher-paying developed country health systems (often going to countries with historical relationships and/or where they received advanced training) further depletes available medical resources. In nearly all developing countries, private sector providers play an important supplemental role, with some middle-income developing countries like China currently encouraging their further development.

Most middle- and lower-income developing countries struggle to fund high-quality individual health services. Recent emphasis on universal health coverage has intensified that struggle. In middle-income developing countries **(Table 7-3)**, World Bank data from 2016 show a range of health expenditure rates as a percentage of GDP, including Kazakhstan at 3.53% of GDP, Thailand at 3.71%, Malaysia at 3.80%, Turkey at 4.31%, China at 4.98%, Botswana at 5.46%, Mexico at 5.47%, and Colombia at 5.91%. Total health spending in low-income developing countries **(Table 7-4)** ranges

from 3.65% of GDP for Nigeria, 3.66% for India, 3.97% for Ethiopia, 6.29% for Nepal, to 8.40% for Honduras.

TABLE 7-3

Middle-Income Developing Countries: Total Health Expenditure (% of gross domestic product)

Middle-Income Developing Countries	
Kazakhstan	3.53%
Thailand	3.71%
Malaysia	3.80%
Turkey	4.31%
China	4.98%
Botswana	5.46%
Mexico	5.47%
Colombia	5.91%

TABLE 7-4

Low-Income Developing Countries: Total Health Expenditure (% of gross domestic product)

Low-Income Developing Countries	
Nigeria	3.65%
India	3.66%
Ethiopia	3.97%
Nepal	6.29%
Honduras	8.40%

Given lower aggregate GDP levels, per capita annual expenditures are considerably less than those found in developed countries. In middle-income developing countries (**Table 7-5**), Thailand spent (2016 data in adjusted USD) $221 annually per person, Kazakhstan spent $262, Colombia spent $340, Malaysia spent $361, Botswana spent $379, China spent $398, Mexico spent $461, and Turkey spent $468. Among low-income developing countries (**Table 7-6**), Ethiopia spent $27 per person annually, Nepal spent $45, India spent $62, and Nigeria spent $79, whereas Honduras spent $199.

TABLE 7-5

Middle-Income Developing Countries: Per Capita Health Expenditures

Middle-Income Developing Countries	
Thailand	$221
Kazakhstan	$262
Colombia	$340
Malaysia	$361
Botswana	$379
China	$398
Mexico	$461
Turkey	$468

TABLE 7-6

Low-Income Developing Countries: Per Capital Health Expenditures

Low-Income Developing Countries	
Ethiopia	$27
Nepal	$45
India	$62
Nigeria	$79
Honduras	$199

China provides an interesting example of financing and service delivery development in middle-income developing countries. Financing reforms replaced fully publicly funded services with three new arrangements tied to work status and residence: (1) Urban Employee Basic Medical Insurance in 1998 (incorporating privately funded medical savings accounts—a concept pioneered in Singapore); (2) Urban Resident Basic Medical Insurance in 2007; and (3) New Rural Cooperative Medical Scheme in 2007. The urban employee program is an SHI model reflecting the rapid rate of economic growth and increasing incomes for urban workers. Starting in 2013, the Chinese government increasingly emphasized the development of new private hospitals and promotion of private insurance in urban areas. These and other health sector reforms became possible as continued strong economic growth over 30 years raised an estimated 300 million Chinese into the middle class, generating the requisite private as well as public revenues to underpin major structural health sector change.

Service delivery in developing countries varies widely in access, quality, and outcomes across and also within many developing countries. Medical services and tertiary institutions in urban areas of China, for example, operate at a substantially higher standard of service than those typically available in poorer rural regions. Similar disparities exist in wealthier parts of India such as Rajasthan, whereas in poorer states such as Bihar, primary

care is mostly delivered by community "volunteers" with basic medical training, supervised by a GP.

Two critical challenges for all developing country health systems are contingent on generating adequate future funding flows. First, the current push from United Nations agencies to achieve universal health coverage will require additional public and private sector funding to pay for the necessary new providers and services. Second, available funding will need to be more effectively targeted on needed and appropriate services, with minimized managerial inefficiencies and substantially less political corruption.

Both forms of expanded funding will be dependent on strong national and global economic growth, which in turn will require continued country-level economic and political reforms. Achieving both funding-related objectives will require considerable international as well as national effort.

FURTHER READING

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