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INTERNATIONAL HEALTH CARE SYSTEMS

Australian Health Care — The Challenge of Reform in a Fragmented System

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The Australian health care system appears remarkably successful in delivering good health outcomes with reasonable cost control. Australians enjoy one of the longest life expectancies and a long healthy life expectancy, while costs as a proportion of the gross domestic product remain around the median among countries in the Organization for Economic Cooperation and Development (OECD; see table).[1] Universal, tax-financed comprehensive health insurance, Australian Medicare, has been largely stable for three decades. Yet this performance has been achieved through, or despite, the interplay of public and private financing, public and private service provision, and a division of responsibilities between the federal and state governments. The main political parties clash over the role of government and whether national health insurance in its current form should continue.

An interactive graphic is available at NEJM.org

Australian Medicare was established in 1984, after a period of tumultuous change. Australia has moved through numerous approaches to health care financing: private insurance with public subsidies (pre-1974), publicly financed national universal health insurance (Medibank, 1974–1976), predominantly private insurance with public subsidies (1976–1984), publicly financed national universal health insurance (Medicare, 1984–1996), publicly financed national universal health insurance with publicly subsidized private health insurance (1996–2013), and publicly financed national universal health insurance with means testing for private insurance subsidies (2013 to present). The rationale for government subsidies for private insurers alongside a public universal insurance scheme has never seemed clear; perhaps it is best seen as the compromise between the "strife of interests masquerading as a conflict of principles" that, according to health planner Sidney Sax, characterizes the Australian system.[2]

Another strife of interests afflicts intergovernment relationships. There are six states and two territories (hereafter all referred to as states), each of which retains its own government and the responsibility for public health and health care. The national government, the Commonwealth of Australia, holds the major revenue-raising powers, so states rely on financial transfers to provide services. The states operate public hospitals (which account for about two thirds of all hos-

Selected Characteristics of the Health Care System and Health Outcomes in Australia.*	
Variable	**Value**
Health expenditures	
Per capita (U.S. $)	6,140
Percentage of GDP	9.1
Out-of-pocket (% of private health expenditures)	56
Public sources (% of total)	66.9
Health insurance	
Rate in population (%)	100 Medicare; 47.1 private hospital
Source of funding	Taxes (for public hospitals, medical care, pharmaceuticals)
Average physician income (U.S. $ [multiple of average Australian wage])	
Self-employed general practitioner	134,590 (1.74)
Self-employed specialist	328,450 (4.25)
Generalist–specialist balance (%)	
Generalists	47
Specialists	46
Access	
No. of hospital beds per 10,000 population in 2010	39
No. of physicians per 1000 population in 2011	3.3
Total government health expenditures spent on mental health care in 2011 (%)	7.6
Primary care physicians using electronic medical records (%)	92
Life and death	
Life expectancy at birth (yr)	82
Additional life expectancy at 60 yr (yr)	25
Annual no. of deaths per 1000 population	7
No. of infant deaths per 1000 live births in 2013	3
No. of deaths of children <5 yr of age per 1000 live births in 2013	4
No. of maternal deaths per 100,000 live births in 2013	6
Fertility and childbirth	
Average no. of births per woman	1.9
Births attended by skilled health personnel in 2009 (%)	99
Pregnant women receiving any prenatal care in 2010 (%)	96
Preventive care	
Colorectal-cancer screening generally available at primary care level in 2010	Yes
Children 12–23 mo of age receiving measles immunization in 2013 (%)	94
Prevalence of chronic diseases	
Diabetes (% of 2013 population 20–79 yr of age)	7.8
HIV infection (%)	0.12
Prevalence of risk factors (%)	
Obesity in adults ≥18 yr of age in 2014	28.6
Overweight in children <5 yr of age in 2007	8
Underweight in children <5 yr of age in 2007	0.2
Smoking in 2011	20

* Data are from the World Bank, the Organization for Economic Cooperation and Development, the Commonwealth Fund, and the World Health Organization and are for 2012 except as noted. GDP denotes gross domestic product, and HIV human immunodeficiency virus. The percentages of generalists and specialists do not total 100 because they exclude a small number of career medical officers employed in hospitals.

MYOCARDIAL INFARCTION

A 55-year-old man with no other serious health conditions has a moderately severe myocardial infarction.

Mr. Smith has a heart attack while on vacation and is taken by ambulance to the regional hospital, a 1-hour trip bypassing the small facility in the town where he's staying. He is assessed in the emergency department of the public hospital, then transferred by air ambulance to the capital city for further evaluation. His initial treatment in the public hospital is fully covered by Medicare, but the hospital staff advises him to elect private care (under his private insurance) so that he can be transferred to the private hospital attached to a large public teaching hospital, lest he wait days for a bed in the public hospital.

Mr. Smith undergoes angiography and receives two stents. He has an uncomplicated stay and is discharged after 5 days. His private insurance and Medicare cover the costs of his treatment. He's given a week's worth of medications and advised to see his primary care doctor and arrange an appointment with a cardiologist in his home town, which is in another state. The hospital provides little other advice and does not arrange transport.

Once Mr. Smith arrives home (a 2-day car trip), he feels his condition is deteriorating but has to wait 3 days to see his primary care doctor, who by that time has received a letter from the treating cardiologist. The visit is subsidized by the central government; although 80% of general practitioner services are provided without copayment, Mr. Smith's doctor charges an additional A$30, which his private insurance will not cover. He's referred to a cardiologist but can't obtain an appointment for 3 weeks. He's left to make his own arrangements for cardiac rehabilitation.

Mr. Smith has been treated according to evidence-based guidelines, though he had to be transferred from the rural town to receive angiography. Australia is a large country with regional variation in the provision of evidence-based medicine, and care is not sufficiently integrated for smooth transitions from hospital and specialist care in one state to primary and specialty care in another. After discharge, Mr. Smith's primary care physician, a cardiac rehabilitation team, and a cardiologist are involved in his ongoing treatment, but no one provider is responsible for his overall care.

pitalizations and provide emergency department visits without charge), though funding them is a joint responsibility of both levels of government. The Commonwealth has responsibility for paying benefits through Medicare (for out-of-hospital medical care and in-hospital private medical services) and for the Pharmaceutical Benefits Scheme (covering most prescribed drugs), but funding arrangements for other services often involve both levels of government. The result is a complex set of overlapping and fragmented responsibilities.

Nonetheless, several innovations have contributed to health system performance in terms of access, improved quality, and reasonable costs. These include requiring evidence of cost-effectiveness as a basis for public funding (for pharmaceuticals beginning in 1993 and medical procedures beginning in 1998), funding public hospitals on the basis of case-mix–adjusted volume (first introduced in the State of Victoria in 1993), and national strategies for immunization, cancer screening, and reducing tobacco use. These successes have addressed specific public health problems or efficiency within particular funding streams rather than taking a systemwide perspective. A recent review concluded that "the complex split of government roles means no single level of government has all the policy levers needed to ensure a cohesive health system" and that the people who suffer the most from the lack of coordination are "patients with chronic and complex conditions, such as diabetes, cancer and mental illness, who regularly move from one health service to another."[3]

Primary care physicians (general practitioners, or GPs) play a central role as gatekeepers to the rest of the system; all specialist care requires a GP referral. More than 80% of all GP consultations are paid for by government with no out-of-pocket costs for patients ("bulk billing," in Australian parlance). Patients whose care is most likely to be bulk billed are those receiving government welfare payments, children, low-income groups, and people living in urban areas where there's no GP shortage. Although this system would seem to place primary care in a strong position to coordinate and manage care, such coordination has not been achieved. GPs work mainly in private practice, receiving fee-for-service payments that are an incentive to maximize volume rather than continuity and integration. Although government payments have recently been introduced for telehealth consultations, some services provided by allied health professionals (e.g., physiotherapy, psychology, speech pathology), and multidis-

PREGNANCY AND CHILDBIRTH

A healthy 23-year-old woman is pregnant for the first time.

Ms. Lim sees her general practitioner (GP) to confirm her pregnancy and discuss the options for antenatal care and delivery. She will receive regular antenatal care and monitoring whether she decides on public or private care.

If she chooses public care, she'll attend the antenatal clinic of a public hospital with a maternity unit, staffed by midwives and registrars (specialist obstetricians in training), supervised by a qualified specialist. She may not see the same person at each visit. The birth will be attended by a hospital-based midwife unless additional medical care is required. Ms. Lim won't have to pay for any services out of pocket, and her GP may participate in a shared care arrangement with the specialists at the antenatal clinic.

If she chooses private care, it will be provided by a specialist obstetrician, and any ultrasonography and pathology tests will be done by private providers. The usual cost for an antenatal visit ranges from A$80 to A$150; since the Medicare rebate is much lower (A$35.90), Ms. Lim will face substantial out-of-pocket costs that cannot be covered by private insurance.

Whatever hospital she chooses, Medicare provides a set amount toward medical fees. Private insurance, if she has it, contributes partially to in-hospital medical fees and the hospital charges, depending on her policy and the insurer's agreements with the hospital and obstetrician. Total out-of-pocket costs may range from A$2,000 to A$10,000.

Choosing private care means that Ms. Lim can choose her own provider and expect her obstetrician to be there for her delivery. But 42% of private deliveries (unadjusted for risk factors) are caesareans, versus 29% of public deliveries, and many observers believe that natural birth is more readily achieved with midwife-led public care.

Although antenatal education is offered by private obstetricians and hospitals, once Ms. Lim leaves the hospital she's on her own. She can visit her GP for follow-up care and attend local community well-baby classes. At-home support is available only through the private sector, and there are no integrated services for identifying problems such as postnatal depression or poor feeding or sleeping.

ciplinary case conferences, such government-funded services, continue to contribute little to overall service volume and provider incomes. Australians are not linked to any one provider or group of providers through registration, although most feel that they have a regular place of care.

Such a fragmented system can be reformed through cooperative arrangements and negotiation or through unilateral action by the Commonwealth or the states. The National Health Reform Agreement, the outcome of 3 years of negotiations, was signed by all states and the Commonwealth in 2011. It established a new basis for the Commonwealth's contribution to public hospital funding, based on organizations' case mix and known as activity-based funding. A new independent authority was established to determine the National Efficient Price for each case type, deriving prices from detailed cost reports from public hospitals in all states. Previously, the Commonwealth share had been negotiated with each state — a process driven more by politics than by evidence. The agreement also attempted to strengthen primary care by establishing 61 new entities called Medicare Locals. These entities (which have since been replaced by new agencies) were to facilitate access to allied health care, identify underserved groups in their community (particularly those with chronic diseases), and ease transitions between hospital and community.

Funding consisted of core grants for assessment of population needs and planning and program grants for initiatives with such goals as improved after-hours care and mental health services. Although this funding gave Medicare Locals some leverage, the bulk of primary care funding continued to support fee-for-service visits and did not flow through the new organizations, which therefore gained little traction for improving care integration. Most senior managers and policymakers believed that these reforms generally represented progress but didn't go far enough.[4] Medicare Locals had the potential to evolve toward holding the budgets as purchasers of health services for their populations, and some Medicare Locals and state health authorities were taking new approaches to integrating care. Yet a national trial and evaluation of coordinated care for diabetes showed that achieving better outcomes while reducing costs is challenging — and that the tested model probably wouldn't be cost-effective if implemented broadly.[5]

A change in national government in 2013 prompted substantial revision of many aspects of reform. In primary care, Medi-

care Locals were disbanded, and on July 1, 2015, they were replaced by 31 Primary Health Networks. The call for applications to establish these networks emphasized the eligibility of various organizations, including private health insurance funds, as contractors. The successful bids came mainly from consortia of Medicare Locals, some of them including insurers as partners. The networks may yet develop the potential to become purchasers and thereby provide impetus for integrated care, but given the challenge of setting up new entities, that transformation remains aspirational.

The new government has also reversed the agreement that provided additional Commonwealth funding to public hospitals on the basis of efficient cost increases and volume growth. Beginning in July 2017, the Commonwealth's additional contributions will be based only on population growth and inflation. This change presents a major challenge for states, whose public-hospital expenditure is a major budgetary commitment that isn't matched by revenue-raising capability. It will therefore severely limit states' flexibility in funding other programs, such as education and transportation, and in developing innovative health programs that might improve care integration and coordination.

In addition, a new agreement with the retail pharmacy sector suggests that pharmacists will begin playing a greater role in primary care, including chronic-disease management. Although the details haven't been announced, this agreement could represent yet another missed opportunity for improving primary care coordination and may lead to further fragmentation.

An underlying concern is the extent to which the Commonwealth government intends to reduce its share of health care expenditure. In 2014, it attempted to reduce its outlays on Medicare by imposing patient copayments for GP visits — a tactic that was eventually dropped in the face of concerted opposition. But other cost-reduction avenues remain open, and recent announcements have, for example, targeted the cost of pharmaceuticals. Since 2002, the Commonwealth has produced a series of Intergenerational Reports predicting what government expenditures will be over the next 40 years if current policies remain in place. These reports show significant increases in health care spending, but they focus on the Commonwealth budget rather than the entire health sector. If reducing Commonwealth expenditures remains the primary objective for the health portfolio, it could lead to further fragmentation of care and missed opportunities for developing a coherent and efficient health system.

Disclosure forms provided by the author are available with the full text of this article at NEJM.org.

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King v. Burwell — ACA Armageddon Averted

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For the second time in 3 years, U.S. Chief Justice John Roberts wrote a Supreme Court opinion that averted a near-death experience for the Affordable Care Act (ACA). In *National Federation of Independent Business [NFIB] v. Sebelius* (2012), Roberts joined the Court's four liberal justices in upholding the constitutionality of the ACA's individual mandate — its requirement that individuals maintain insurance coverage if it's affordable — with the unexpected rationale that it is valid as a tax, even if not as a regulatory mandate. This year's end-of-term decision, *King v. Burwell*, responded to a statutory rather than a constitutional challenge. Many people were surprised that the Court so quickly took the case, which was based on a small glitch in statutory wording that