THE COMMONWEALTH FUND

June 2010

Issues in International Health Policy

Prescription Drug Accessibility and Affordability in the United States and Abroad

Steve Morgan and Jae Kennedy

ABSTRACT: This issue brief contrasts prescription drug access, affordability, and costs in the United States with six other high-income countries, drawing from Commonwealth Fund survey data of patient experiences as well as international spending and pricing data. The analysis reveals that Americans, particularly the relatively young and healthy, are more likely to use prescription drugs than are residents of Australia, Canada, Germany, the Netherlands, New Zealand, and the United Kingdom, but they also experience more financial barriers in accessing medications and spend more out-of-pocket for prescriptions. In the U.S., there are also larger income-related inequities in pharmaceutical use. Despite access barriers and disparities, spending per person in the U.S. is far higher, likely the result of paying higher prices for similar medications and using a more expensive mix of drugs. The authors say that value-based benefit designs, reference pricing, and group purchasing could reduce financial barriers and keep down pharmaceutical spending.

★ ★ ★ ★ ★

BACKGROUND

Within a generation, prescription drugs have become a major component of health systems worldwide. They are central to most aspects of medicine, from primary care to specialized treatment.

Since 2004, one out of every 10 dollars expended on health care in the United States has been for prescription drugs.[1] While this may sound modest, prescription drugs accounted for only 4.7 percent of total U.S. health care expenditures in 1980 and just 5.6 percent in 1990.[2] Thus, prescription drugs nearly doubled as a share of U.S. health care spending in little more than a decade. Increases in spending per person also have occurred in other countries—although far less rapidly. As a result, the U.S. stands out for much higher spending per person, with the gap between the U.S and other countries increasing. U.S. spending was the highest among the seven

The mission of The Commonwealth Fund is to promote a high performance health care system. The Fund carries out this mandate by supporting independent research on health care issues and making grants to improve health care practice and policy. Support for this research was provided by The Commonwealth Fund. The views presented here are those of the authors and not necessarily those of The Commonwealth Fund or its directors, officers, or staff.

For more information about this study, please contact:

Steve Morgan, Ph.D.
Associate Professor
School of Population and Public Health
University of British Columbia
morgan@chspr.ubc.ca

To learn more about new publications when they become available, visit the Fund's Web site and register to receive e-mail alerts.

Commonwealth Fund pub. 1408
Vol. 89

countries in this study; as of 2005, the U.S. reached $790 per capita compared with $599 in Canada, the next highest country, and $292 in New Zealand. As illustrated, the other countries have each experienced much slower annual growth rates (Exhibit 1).

While prescription drugs can improve patients' health, their rising prominence in health care systems has come with access, safety, and cost challenges. Pharmaceutical policy needs to balance goals related to the availability and safety of medicines, the accessibility and appropriate use of treatment options, and the affordability and sustainability of costs borne by individuals and by the system as a whole. As we will discuss, the experience of several countries shows that a coordinated national pharmaceutical policy can support achievement of these goals.

Using data from the Commonwealth Fund 2007 International Health Policy Survey, as well as data from the Organization for Economic Cooperation and Development (OECD) and other sources, we sought to gauge pharmaceutical policy performance for the seven participating countries: Australia, Canada, Germany, the Netherlands, New Zealand, the United Kingdom, and the United States.[3] We focus our attention in this issue brief on issues of accessibility and cost:

- *Accessibility:* Are patients able to access necessary medicines regardless of age, income, or other factors?
- *Cost:* Does the cost of prescribed medicines represent a fair and manageable burden for individuals and the system overall?
- *Payment Policies:* How can country policies help assure access and affordability?

USE OF PHARMACEUTICALS

Americans are generally more likely than residents of other surveyed countries to use prescription drugs, according to the 2007 results. The percentage of survey respondents reporting using one or more prescription drugs in the past year ranged from 46 percent in Germany to 60 percent in the U.S. ("All ages" in Exhibit 2). The percentage of survey respondents reporting using four or more prescription drugs ranged from a low of about 13 percent in Germany to a high of 17 percent in the U.S. and Australia.

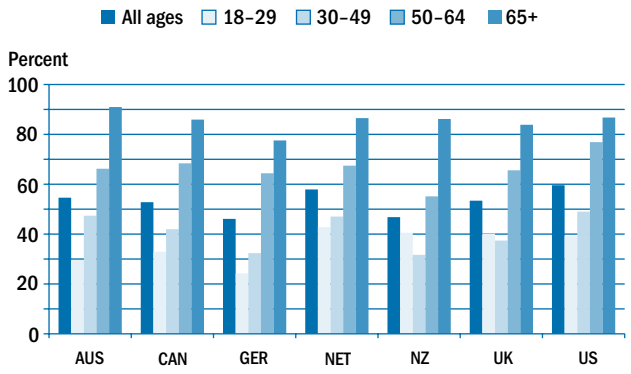
Underlying these cross-national differences in reported prescription drug use are patterns of use by age, health status, and income that reveal potentially important differences in medical care and equity of access.

Exhibit 1. Pharmaceutical Spending per Person and Growth Rates

	Total pharmaceutical spending in U.S. dollars (millions), 2005[a]	Pharmaceutical spending per capita in inflation-adjusted U.S. dollars[a]		
		1995	2005	Average annual growth rate
Australia	$9,071	$243	$446	6.3%
Canada	$19,338	$342	$599	5.8%
Germany	$39,547	$341	$480	3.5%
Netherlands	$6,193	$248	$379	4.3%
New Zealand	$1,195	$228	$292	2.5%
United Kingdom	$27,540	$266	$457	5.6%
United States	$234,356	$397	$790	7.1%

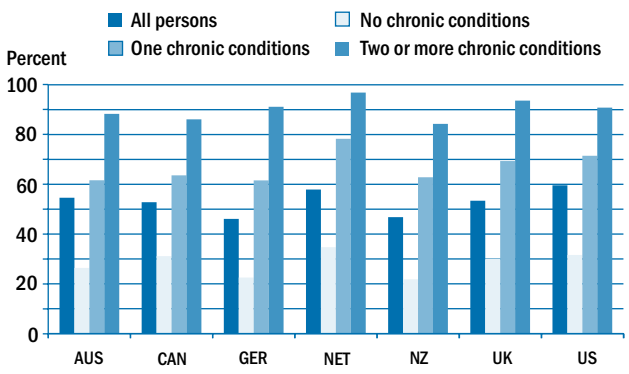
[a] Figures are inflation-adjusted using domestic GDP deflator and converted to USD$ using purchasing power parities. Missing data were interpolated and U.K. data estimated using government data on Net Ingredient Cost of prescriptions dispensed in the community.
Source: Authors' calculations based on *OECD Health Data 2008.*

Exhibit 2. Percent of Population Reporting Use of One or More Prescription Drugs During the Previous 12 Months, by Country and Age



Source: Analysis of the Commonwealth Fund 2007 International Health Policy Survey.

Exhibit 3. Percent of Population Reporting Use of One or More Prescription Drugs During the Previous 12 Months, by Country and Presence of Chronic Conditions



Source: Analysis of the Commonwealth Fund 2007 International Health Policy Survey.

Differences by Age and Health Status

The likelihood that older and sicker adults will use prescription drugs is roughly comparable in all seven countries. For example, Americans age 65 and older are about as likely to use one or more prescriptions per year as similarly aged persons in the other six countries (Exhibit 2), and Americans with two or more chronic conditions are about as likely to fill one or more prescriptions as persons with two or more chronic conditions in those countries (Exhibit 3).

By contrast, younger and healthier Americans use prescription drugs more often than do their counterparts in the six other countries. As shown in Exhibit 2, U.S. adults ages 30 to 49 and 50 to 64 are more likely to use at least one prescription than similarly aged people in the other countries, though in the former of these two groupings, there is little difference between Americans and the Australians and Dutch.

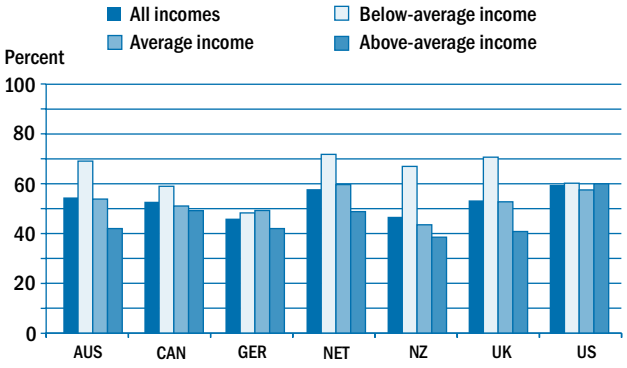
Exhibit 3 shows that Americans with one chronic illness or none were more likely to fill one or more prescriptions than were persons of similar health status in all other countries except the Netherlands (where differences with Americans were not significant). It thus appears that doctors in the U.S. have a greater propensity to prescribe drugs for relatively healthy people than do doctors in the other countries. It is perhaps notable that the U.S. and New Zealand are the only countries that permit direct-to-consumer advertising of prescription drugs, and that the intensity of the practice is far greater in the U.S. Resulting patient requests for prescriptions may therefore help explain the high use of medicines in the U.S., including among relatively young or healthy populations.[4]

Equity of Access

While cross-national differences in prescription drug use are suggestive of differences in medical practice patterns, differences across population groups within countries suggest possible inequities in medical care. Researchers in many countries have documented a positive relationship between income and health status.[5] The poor are generally less healthy and thus would be expected—with equal access—to use medications more frequently. As seen in Exhibit 4, this expected pattern emerges in five of the seven countries. In Australia, Canada, the Netherlands, New Zealand, and the U.K., the lowest income group studied was substantially more likely than the highest income group to have used a prescription drug. In the United States and Germany, however, there was little difference between those with below-average income and those with average income. Indeed, in the U.S., income makes virtually no difference in using at least one prescription medicine.

The lack of difference between people with below- and above-average incomes could perhaps be seen as an indicator of equity. However, given the widely documented association between income and health, this pattern suggests either low-income Americans are not able to access medicines they need, that higher-income Americans may be receiving more medicines than they

Exhibit 4. Percent of Population Reporting Use of One or More Prescription Drugs During the Previous 12 Months, by Country and Income



Source: Analysis of the Commonwealth Fund 2007 International Health Policy Survey.

need, or both. Notably, U.S. adults with below-average income were far more likely than those with above-average income to rate their health as fair or poor (31% vs. 10%) and to have been diagnosed with least one of seven chronic conditions (63% vs. 48%). It is worth noting that the country that has the highest rate of prescription drug use by those with above-average incomes is the United States, while people with lower-than-average incomes in four of the survey countries have higher rates of use than in this the U.S.

Financial Barriers and Prescription Drug-Skipping

Reported rates of cost-related nonadherence to prescribed treatments add further evidence of inequity in access to prescription drugs in the U.S. Despite higher rates of prescription drug use in the U.S., Americans are more likely than residents of the other countries to report having left prescriptions unfilled or skipped doses because of cost, and Americans with low income report the highest rates of such financial barriers.

As shown in Exhibit 5, the percent of the population reporting not filling a prescription or skipping a dose because of cost during the previous 12 months ranged from 2 percent in the Netherlands to 23 percent in the U.S. With or without adjusting for sex, age, income, and health status, residents of all other countries studied were significantly less likely (50 percent or more) than Americans to report these financial barriers to use of prescriptions.

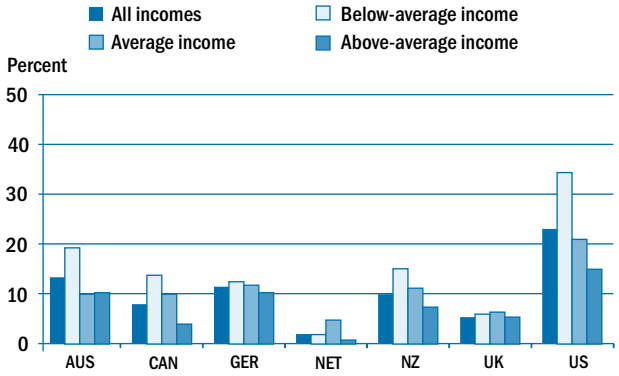
The higher extent to which U.S. adults go without prescriptions or skip doses because of costs appears in all income groups, as shown in Exhibit 6. High-income Americans were as or more likely to report cost-related barriers to medicine use than all income groups

Exhibit 5. Percent of Population Reporting Not Filling a Prescription or Skipping a Dose Because of Cost During the Previous 12 Months

	Country rates	Unadjusted odds ratio (95% confidence interval)	Adjusted odds ratio (95% confidence interval)
United States	23.1%	*reference group*	*reference group*
Australia	13.4%	**0.5 (0.4, 0.7)**	**0.5 (0.4, 0.6)**
Germany	11.5%	**0.4 (0.4, 0.5)**	**0.5 (0.4, 0.6)**
New Zealand	10.0%	**0.4 (0.3, 0.5)**	**0.4 (0.3, 0.6)**
Canada	8.0%	**0.3 (0.2, 0.4)**	**0.3 (0.2, 0.4)**
United Kingdom	5.4%	**0.2 (0.1, 0.3)**	**0.2 (0.1, 0.3)**
Netherlands	2.0%	**0.1 (0.0, 0.1)**	**0.1 (0.0, 0.1)**

Note: Model adjusted for sex, age, income, and health status (number of chronic conditions reported). Boldface text indicates statistically significant difference compared with the U.S.
Source: Analysis of the Commonwealth Fund 2007 International Health Policy Survey.

Exhibit 6. Percent of Population Reporting Not Filling a Prescription or Skipping a Dose Because of Cost During the Previous 12 Months, by Country and Income



Source: Analysis of the Commonwealth Fund 2007 International Health Policy Survey.

combined in every country except Australia. Low-income Australians were the only income group in any another country to report financial barriers more frequently than high-income Americans. This likely reflects gaps in coverage and high cost-sharing that even insured Americans often experience.

Low-income Americans were at particularly high risk of cost-related nonadherence. More than one-third (34%) of low-income Americans reported not filling prescriptions or skipping doses during the past 12 months, far beyond the rate among low-income adults in any of the other countries. Indeed, in several countries—the Netherlands, Germany, and the U.K.—there were few differences between below-average and above-average income groups in going without medications because of cost. The steep differences in the U.S. between below-average, middle-income, and above-average-income adults likely reflects differences in insurance protection, with rising rates of uninsured and underinsured among low- and middle-income families.[6]

AFFORDABILITY

The affordability of prescription drugs can be considered either at the level of individual out-of-pocket expenses or at the level of overall costs to the system. We present both.

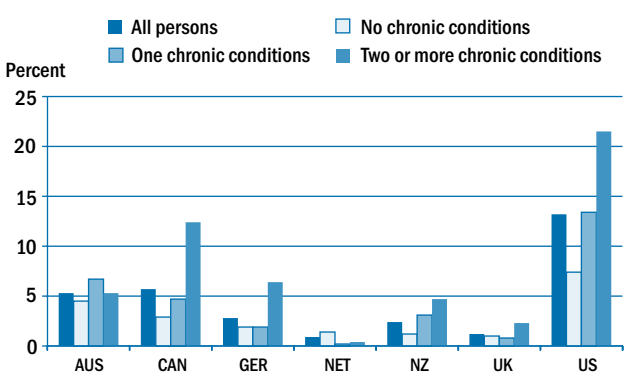
Out-of-Pocket Costs

Even with their higher rate of unfulfilled prescriptions, Americans are much more likely than residents of the other countries to report out-of-pocket spending in excess of $1,000 in the previous year. At 13.2 percent of the population reporting such high out-of-pocket costs, no other country comes close to the U.S. on this measure (Exhibit 7). The next highest share of population paying $1,000 or more in out-of-pocket for prescription drugs is 5.7 percent and is found in Canada where—like the U.S.—many people have no private or public drug coverage.[7]

In countries with comprehensive drug benefit programs that have low copayments—Germany, the Netherlands, New Zealand, and the U.K.—fewer than 3 percent of the population had out-of-pocket costs of $1,000 or more for prescription drugs. In Australia, where drug coverage is universal but comes with relatively high copayments (AUD$30) for general beneficiaries, about 5 percent of the population reported out-of-pocket spending in excess of $1,000.

As was the case with patterns of medicine use, within-country variation in high out-of-pocket costs is as important as cross-national differences. As shown in Exhibit 7, the likelihood of facing high out-of-pocket

Exhibit 7. Percent of Population Reporting Out-of-Pocket Expenses for Prescription Medications of USD$1,000 or More During Past Year, by Country and Health Status



Source: Analysis of the Commonwealth Fund 2007 International Health Policy Survey.

costs is higher among those with chronic disease in most countries. But impact of health status on out-of-pocket expense is most significant in the U.S., where more than one of five people with two or more chronic conditions face $1,000 or more in out-of-pocket prescription costs.

Total Spending per Person and Prices

As noted earlier, despite access barriers and high out-of-pocket costs, total pharmaceutical spending per person is far higher in the U.S. than in the six comparison countries (Exhibit 1). Moreover, in the past decade pharmaceutical expenditures per capita have grown faster in the United States than in the comparison countries, adjusted for general inflation. By 2005, U.S. pharmaceutical spending per person was 30 percent higher than in Canada and nearly twice the level of spending in New Zealand. In total, the U.S. spent more than $234 billion on prescription drugs in 2005.

It is extraordinarily difficult to assess cross-national differences in drug prices because standard doses and package sizes vary from country to country and are seldom taken into account in price comparisons. Moreover, negotiated discounts between manufacturers and insurers are ubiquitous in the U.S., whereas such discounts were relatively rare in most other countries until very recently. Because the use of negotiated discounts to secure savings has the effect of driving up the list prices of drugs, there is little doubt that uninsured persons in the U.S. pay higher prices for prescription medicines than patients (or governments) pay in other countries. However, prices for drugs that do not involve discounting—e.g., prices for generic drugs—are actually lower in the U.S. than in other countries. Thus, cross-national differences in drug spending likely result from the combined effects of higher use of medicines in the U.S., use of newer, more costly therapeutic options, and higher prices paid by the uninsured or underinsured.

INTERNATIONAL POLICY STRATEGIES FOR ACCESS AND AFFORDABILITY: INSIGHTS FOR THE UNITED STATES

The findings concerning the accessibility and affordability of prescription drugs in the United States are troubling. Despite the fact that the U.S. spends more on prescriptions per person than any other country studied here, rates of patients' nonadherence to prescribed treatment because of cost considerations are highest in the U.S.; within-country utilization patterns suggest income-related disparities in access in the U.S. (and, to a lesser extent, in Canada and Australia); and patients in the U.S. face higher out-of-pocket costs than in any other country, especially patients with chronic illness.

These findings concerning accessibility and affordability of medicines in the U.S. likely stem from the incomplete nature of health and pharmaceutical coverage and the lack of coordinated purchasing policies regarding prescription medications. Studies repeatedly find negative health and total cost effects from high out-of-pocket prescription costs for patients with chronic disease and other health concerns, with high rates of cost-related nonadherence to prescribed treatments. These cost effects result from complications and higher emergency department use that could have been prevented with adequate medication regimens.[8] In other countries, a focus on health and drug benefit policy designed to provide universal access to essential treatments works together with group purchasing and pricing policies to provide affordable access at the patient and population level.

Ensuring Access

Affordability of medicines for individual patients is facilitated by policies that limit cost-sharing for covered individuals and design benefits with incentives to use effective, essential medications. This is substantiated not just by the evidence presented above, but by a growing body of research showing that even modest levels of cost-sharing can lead patients to cease or skimp on the use of essential and nonessential drugs alike.[9]

All countries in this study except the U.S. and Canada ensure universal access to drug coverage. Most of these countries do so with relatively low cost-sharing by

patients, especially for vulnerable populations (e.g., children, the elderly, the chronically ill, and the poor). The Canadian system of public drug coverage is comparable to that of the U.S., with public coverage targeted (primarily) to the elderly and social assistance recipients, as well as a mix of privately insured and uninsured among other population groups. However, public programs finance a greater share of total prescription drug costs in Canada than in the U.S. (overall and for specific beneficiary groups such as the elderly).

Just like access to primary care, ensuring access to essential medicines—without barriers such as those due to geography, age, income, or employment—can be cost-effective when viewed from health system and societal levels.[10]

Managing Pharmaceutical Costs

In providing universal coverage, countries also can manage expenditures on medicines by two mechanisms: 1) the processes and criteria used to determine which medicines will be covered and with what cost-sharing; and 2) relative pricing policies and negotiations concerning the price of medicines.

Formularies and related price negotiations are commonplace in the U.S., where major private insurers and some public buyers exercise buying power on behalf of population subgroups. Different formularies may apply to different patients, depending upon their insurer. By contrast, in countries that have universal coverage and a commitment to base that coverage and cost-sharing on best available evidence, there is a single formulary and physicians have no need to sort out which formulary applies to which patient.

In most countries studied, information about the comparative clinical- and cost-effectiveness of medicines is systematically assessed to determine which medicines should or should not be subsidized, and at what level of coverage. In the U.K., the system is governed by a negative formulary, meaning that all medicines are eligible for public subsidy unless identified as a nonbenefit. Therefore, the National Institute for Health and Clinical Excellence focuses its assessments on controversial medicines. In other countries, every medicine is appraised to determine whether it should be subsidized and at what rate.[11] Such comparative assessment review can help spur both the development and adoption of innovative and cost-effective medicines, as well as target use where medications are effective for particular patients.[12]

Once a medicine is deemed to be a candidate for coverage under a universal drug benefit system, a key consideration is the price that can be charged. In Australia and Germany, for example, prices paid by insurers for virtually all products are controlled by reference to the prices of comparable alternatives—a system called reference pricing. In Canada, prices are limited in comparison to those charged in seven comparator countries (including the U.S.). The Netherlands uses both reference pricing and price ceilings based on averages paid in comparison countries.

Increasingly, however, drug benefit managers are negotiating contracts with drug manufacturers so that acceptable prices can be secured while providing the manufacturer with certain guarantees of market share or of pricing confidentiality. Consider public benefits in New Zealand, which operate with a national formulary managed by the Pharmaceutical Management Agency of New Zealand (PHARMAC). Informed by independent and systematic review of the comparative cost-effectiveness of all products that seek public subsidy, PHARMAC uses a variety of supplier contracts and coverage policies to meet annual budget targets for public expenditures on medicines. PHARMAC negotiates rebates on list prices, uses sole-source contracts for supply of off-patent drugs, and engages in other deals with suppliers to procure drugs at the most competitive prices possible. All of the tools PHARMAC applies are used to various extents by drug plans in the U.S.; but when applied universally their effectiveness is clear.

As seen in Exhibit 1, spending on medicines in New Zealand has grown very slowly, adjusted for general inflation. Indeed, if from 1995 to 2005 U.S. spending per capita had grown at a rate comparable to New Zealand, per capita pharmaceutical spending in the U.S. would be approximately $510 in 2005, which is $280 less than was actually the case. The total savings implied by such a thought experiment is on the order

of $80 billion in 2005 alone. Potential savings of nearly that magnitude would also be found by comparison to Germany or the Netherlands, where national formulary management occurs despite the fact that the underlying health systems are based on social insurance models with many competing insurers.[13]

CONCLUSIONS

Pharmaceuticals are an essential component of health care, and ensuring appropriate access to them can be a cost-effective way of treating illness and promoting the health of the population. At the same time, use of information to guide and inform benefit designs and pricing policies can help moderate cost increases while assuring access to effective medications, including new products.

The Patient Protection and Affordable Care Act of 2010 will expand prescription drug access mainly by requiring most U.S. citizens and legal residents to obtain health insurance and by defining prescription coverage as an essential insurance benefit.[14] Because uninsured Americans are currently more likely than their insured counterparts to go without prescribed medications, this should improve medication adherence at the population level.[15] While an expansion of this sort will likely drive up per capita drug expenditures, systems of universal, regulated social insurance guided by evidence-based formulary management—such as is seen in Germany and the Netherlands—are ones from which U.S. policymakers may take important lessons. One message from abroad is clear: sustainability, affordability, and equity in pharmaceutical coverage will require commitment to universality and openness to a more coordinated system of financing and evidence-based expenditure management.

About the Study

The Commonwealth Fund 2007 International Health Policy Survey was conducted by random dial telephone interviews between March 6th and May 7th, 2007.[16] Interviews were conducted with 1,000 adults in Australia and in New Zealand; 1,500 adults in Germany, in the Netherlands, and in the United Kingdom; 2,500 adults in the United States; and 3,000 adults in Canada.

In our analyses, we weighted individual responses to be representative of national populations. Where we report shares of populations providing specific answers to survey questions, we used chi-squared tests to determine whether there were statistically significant differences between countries and to determine whether there were statistically significant differences across age, income, and health status within countries.

We report adjusted odds ratios that compare specific results across all countries, using the U.S. as the comparator. These models are adjusted for sex, age, income, and health status (number of chronic conditions reported). We compare accessibility results across specific subpopulations of working-age adults in the U.S. and Canada. These models are adjusted for sex, income, and health status.

Notes

[1] M. Hartman, A. Martin, P. McDonnell et al., "National Health Spending in 2007: Slower Drug Spending Contributes to Lowest Rate of Overall Growth Since 1998," *Health Affairs,* Jan./Feb. 2009 28(1):246–61.

[2] Organization for Economic Cooperation and Development, *OECD Health Data 2008: Statistics and Indicators for 30 Countries* (CD-ROM) (Paris: OECD, 2008).

[3] S. Morgan, J. Kennedy, K. Boothe et al., "Toward an Understanding of High Performance Pharmaceutical Policy Systems: A 'Triple-A' Framework and Example Analysis," *The Open Health Services and Policy Journal,* 2009 2(1):1–9; J. Kennedy and S. Morgan, "Cost-Related Prescription Nonadherence in the United States and Canada: A System-Level Comparison Using the 2007 International Health Policy Survey in Seven Countries," *Clinical Therapeutics,* Jan. 2009 31(1):213–19.

[4] R. L. Kravitz, R. M. Epstein, M. D. Feldman et al., "Influence of Patients' Requests for Direct-to-Consumer Advertised Antidepressants: A Randomized Controlled Trial," *Journal of the American Medical Association,* April 27, 2005 293(16):1995–2002.

[5] L. F. Berkman, "Social Epidemiology: Social Determinants of Health in the United States: Are We Losing Ground?" *Annual Review of Public Health,* April 29, 2009 30:27–41.

[6] C. Schoen, S. R. Collins, J. L. Kriss, and M. M. Doty, "How Many Are Underinsured? Trends Among U.S. Adults, 2003 and 2007," *Health Affairs* Web Exclusive, June 10, 2008: w298–w309.

[7] Descriptions of health care systems: Australia, Canada, Denmark, England, France, Germany, Italy, the Netherlands, New Zealand, Norway, Sweden, Switzerland, and the United States (New York: The Commonwealth Fund, forthcoming).

[8] R. Tamblyn, R. Laprise, J. A. Hanley et al., "Adverse Events Associated with Prescription Drug Cost-Sharing Among Poor and Elderly Persons," *Journal of the American Medical Association,* Jan. 24–31, 2001 285(4):421–29; J. Hsu, M. Price, J. Huang et al., "Unintended Consequences of Caps on Medicare Drug Benefits," *New England Journal of Medicine,* June 1, 2006 354(22):2349–59.

[9] A. Austvoll-Dahlgren, M. Aaserud, G. Vist et al., "Pharmaceutical Policies: Effects of Cap and Copayment on Rational Drug Use," *Cochrane Database of Systematic Reviews: Reviews,* Jan. 23, 2008 1:CD007017; A. S. Adams, S. B. Soumerai, and D. Ross-Degnan, "The Case for a Medicare Drug Coverage Benefit: A Critical Review of the Empirical Evidence," *Annual Review of Public Health,* 2001 22:49–61; T. B. Gibson, R. J. Ozminkowski, and R. Z. Goetzel, "The Effects of Prescription Drug Cost Sharing: A Review of the Evidence," *American Journal of Managed Care,* Nov. 2005 11(11):730–40.

[10] N. K. Choudhry, A. R. Patrick, E. M. Antman et al., "Cost-Effectiveness of Providing Full Drug Coverage to Increase Medication Adherence in Post-Myocardial Infarction Medicare Beneficiaries," *Circulation,* March 11, 2008 117(10):1261–68; S. Thompson and E. Mossialos, *Primary Care and Prescription Drugs: Coverage, Cost-Sharing, and Financial Protection in Six European Countries* (New York: The Commonwealth Fund, March 2010).

[11] Morgan, Kennedy, Boothe et al., "Toward an Understanding of High Performance," 2009; S. Morgan, M. McMahon, C. Mitton et al., "Centralized Drug Review Processes in Australia, New Zealand, the United Kingdom, and Canada," *Health Affairs,* March/April 2006 25(2):337–47.

[12] S. Morgan, M. McMahon, and C. Mitton, "Centralising Drug Review to Improve Coverage Decisions: Economic Lessons from (and for) Canada," *Applied Health Economics and Health Policy,* 2006 5(2):67–73; S. Morgan, K. Bassett, and B. Mintzes, "Outcomes-Based Drug Coverage in British Columbia," *Health Affairs,* May/June 2004 23(3):269–76.

[13] C. Schoen, D. Helms, and A. Folsom, *Harnessing Health Care Markets for the Public Interest: Insights for U.S. Health Reform from the German and Dutch Multipayer Systems* (New York: The Commonwealth Fund, Dec. 2009).

[14] What Will Happen Under Health Reform—And What's Next? The Commonwealth Fund, *Columbia Journalism Review, May 2010 supplement.*

[15] J. Kennedy and S. Morgan, "Cost-Related Prescription Nonadherence in the United States and Canada: A System-Level Comparison Using the 2007 International Health Policy Survey in Seven Countries," *Clinical Therapeutics,* Jan. 2009 31(1):213–19; and J. Kennedy and S. Morgan, "A Cross-National Study of Prescription Nonadherance Due to Cost: Data from the Joint Canada –U.S. Survey of Health," *Clinical Therapeutics*, Aug. 2006 28(8):1217–24.

[16] C. Schoen, R. Osborn, M. M. Doty, M. Bishop, J. Peugh, and N. Murukutla, "Toward Higher-Performance Health Systems: Adults' Health Care Experiences in Seven Countries, 2007," *Health Affairs* Web Exclusive, Oct. 31, 2007 26(6):w717–w734; and http://www.commonwealthfund.org/Content/Surveys/2007/2007-International-Health-Policy-Survey-in-Seven-Countries.aspx

About the Authors

Steve Morgan, Ph.D., is associate professor in the School of Population and Public Health at the University of British Columbia, associate director of the UBC Centre for Health Services and Policy Research, and president-elect of the Canadian Association for Health Services and Policy Research. His work combines quantitative health services research with comparative policy analysis to help identify policies that achieve balance between three sometimes-competing goals: providing equitable access to necessary care, managing health expenditures, and promoting valued innovation. Dr. Morgan earned degrees in economics from the University of Western Ontario, Queen's University, and the University of British Columbia; and received postdoctoral training at McMaster University. He is a recipient of career awards from the Canadian Institutes of Health Research and the Michael Smith Foundation for Health Research, an alumnus of Harkness Fellowships in Health Care Policy, and a former Labelle Lecturer in Health Services Research. He can be e-mailed at morgan@chspr.ubc.ca.

Jae Kennedy, Ph.D., is associate professor of Health Policy and Administration at Washington State University and a faculty affiliate at the Centre for Health Services and Policy Research at the University of British Columbia. He worked as a research associate at the World Institute on Disability before he received his doctorate in health services and policy analysis at the University of California, Berkeley, in 1996. Dr. Kennedy's research focuses primarily on access barriers to prescription medicines, medical care, rehabilitation, and long-term services, with particular emphasis on at-risk groups, including persons with disabilities, older adults, and the uninsured. He can be e-mailed at jjkennedy@wsu.edu.

Editorial support was provided by Paul Frame.


THE
COMMONWEALTH
FUND