



**MIRROR, MIRROR ON THE WALL:  
AN INTERNATIONAL UPDATE ON THE COMPARATIVE  
PERFORMANCE OF AMERICAN HEALTH CARE**

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**ABSTRACT:** Despite having the most costly health system in the world, the United States consistently underperforms on most dimensions of performance, relative to other countries. This report—an update to two earlier editions—includes data from surveys of patients, as well as information from primary care physicians about their medical practices and views of their countries' health systems. Compared with five other nations—Australia, Canada, Germany, New Zealand, the United Kingdom—the U.S. health care system ranks last or next-to-last on five dimensions of a high performance health system: quality, access, efficiency, equity, and healthy lives. The U.S. is the only country in the study without universal health insurance coverage, partly accounting for its poor performance on access, equity, and health outcomes. The inclusion of physician survey data also shows the U.S. lagging in adoption of information technology and use of nurses to improve care coordination for the chronically ill.

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## EXECUTIVE SUMMARY

The U.S. health system is the most expensive in the world, but comparative analyses consistently show the United States underperforms relative to other countries on most dimensions of performance.<sup>1</sup> This report, which includes information from primary care physicians about their medical practices and views of their countries' health systems, confirms the patient survey findings discussed in previous editions of *Mirror, Mirror*. It also includes information on health care outcomes that were featured in the U.S. health system scorecard issued by the Commonwealth Fund Commission on a High Performance Health System.<sup>2</sup>

Among the six nations studied—Australia, Canada, Germany, New Zealand, the United Kingdom, and the United States—the U.S. ranks last, as it did in the 2006 and 2004 editions of *Mirror, Mirror*.<sup>3</sup> Most troubling, the U.S. fails to achieve better health outcomes than the other countries, and as shown in the earlier editions, the U.S. is last on dimensions of access, patient safety, efficiency, and equity. The 2007 edition includes data from the six countries and incorporates patients' and physicians' survey results on care experiences and ratings on various dimensions of care.<sup>4</sup>

The most notable way the U.S. differs from other countries is the absence of universal health insurance coverage.<sup>5</sup> Other nations ensure the accessibility of care through universal health insurance systems and through better ties between patients and the physician practices that serve as their long-term “medical home.” It is not surprising, therefore, that the U.S. substantially underperforms other countries on measures of access to care and equity in health care between populations with above-average and below-average incomes.

With the inclusion of physician survey data in the analysis, it is also apparent that the U.S. is lagging in adoption of information technology and national policies that promote quality improvement. The U.S. can learn from what physicians and patients have to say about practices that can lead to better management of chronic conditions and better coordination of care.<sup>6</sup> Information systems in countries like Germany, New Zealand, and the U.K. enhance the ability of physicians to monitor chronic conditions and medication use. These countries also routinely employ non-physician clinicians such as nurses to assist with managing patients with chronic diseases.

The area where the U.S. health care system performs best is preventive care, an area that has been monitored closely for over a decade by managed care plans. Nonetheless, the

U.S. scores particularly poorly on its ability to promote healthy lives, and on the provision of care that is safe and coordinated, as well as accessible, efficient, and equitable.

For all countries, responses indicate room for improvement. Yet, the other five countries spend considerably less on health care per person and as a percent of gross domestic product than does the United States. These findings indicate that, from the perspectives of both physicians and patients, the U.S. health care system could do much better in achieving better value for the nation's substantial investment in health.

Figure ES-1. Overall Ranking

| Country Rankings                     |           |           |         |          |             |                |               |
|--------------------------------------|-----------|-----------|---------|----------|-------------|----------------|---------------|
|                                      | 1.00–2.66 |           |         |          |             |                |               |
|                                      | 2.67–4.33 |           |         |          |             |                |               |
|                                      | 4.34–6.00 |           |         |          |             |                |               |
|                                      |           | Australia | Canada  | Germany  | New Zealand | United Kingdom | United States |
| Overall Ranking (2007)               |           | 3.5       | 5       | 2        | 3.5         | 1              | 6             |
| Quality Care                         |           | 4         | 6       | 2.5      | 2.5         | 1              | 5             |
| Right Care                           |           | 5         | 6       | 3        | 4           | 2              | 1             |
| Safe Care                            |           | 4         | 5       | 1        | 3           | 2              | 6             |
| Coordinated Care                     |           | 3         | 6       | 4        | 2           | 1              | 5             |
| Patient-Centered Care                |           | 3         | 6       | 2        | 1           | 4              | 5             |
| Access                               |           | 3         | 5       | 1        | 2           | 4              | 6             |
| Efficiency                           |           | 4         | 5       | 3        | 2           | 1              | 6             |
| Equity                               |           | 2         | 5       | 4        | 3           | 1              | 6             |
| Healthy Lives                        |           | 1         | 3       | 2        | 4.5         | 4.5            | 6             |
| Health Expenditures per Capita, 2004 |           | \$2,876*  | \$3,165 | \$3,005* | \$2,083     | \$2,546        | \$6,102       |

\* 2003 data

Source: Calculated by The Commonwealth Fund based on the Commonwealth Fund 2004 International Health Policy Survey, the Commonwealth Fund 2005 International Health Policy Survey of Sicker Adults, the 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians, and the Commonwealth Fund Commission on a High Performance Health System National Scorecard.

## Key Findings

- Quality:** The indicators of quality were grouped into four categories: right (or effective) care, safe care, coordinated care, and patient-centered care. Compared with the other five countries, the U.S. fares best on provision and receipt of preventive care, a dimension of “right care.” However, its low scores on chronic care management and safe, coordinated, and patient-centered care pull its overall quality score down. Other countries are further along than the U.S. in using information technology and a team approach to manage chronic conditions and coordinate care.<sup>7</sup> Information systems in countries like Germany, New Zealand, and the U.K. enhance the ability of physicians to identify and monitor patients with chronic conditions. Such systems also make it easy for physicians to print out medication lists, including those

prescribed by other physicians. Nurses help patients manage their chronic diseases, with those services financed by governmental programs.

- **Access:** Not surprising—given the absence of universal coverage—people in the U.S. go without needed health care because of cost more often than people do in the other countries. Americans were the most likely to say they had access problems related to cost, but if insured, patients in the U.S. have rapid access to specialized health care services. In other countries, like the U.K and Canada, patients have little to no financial burden, but experience long wait times for such specialized services. The U.S. and Canada rank lowest on the prompt accessibility of appointments with physicians, with patients more likely to report waiting six or more days for an appointment when needing care. Germany scores well on patients' perceptions of access to care on nights and weekends and on the ability of primary care practices to make arrangements for patients to receive care when the office is closed. Overall, Germany ranks first on access.
- **Efficiency:** On indicators of efficiency, the U.S. ranks last among the six countries, with the U.K. and New Zealand ranking first and second, respectively. The U.S. has poor performance on measures of national health expenditures and administrative costs as well as on measures of the use of information technology and multidisciplinary teams. Also, of sicker respondents who visited the emergency room, those in Germany and New Zealand are less likely to have done so for a condition that could have been treated by a regular doctor, had one been available.
- **Equity:** The U.S. ranks a clear last on all measures of equity. Americans with below-average incomes were much more likely than their counterparts in other countries to report not visiting a physician when sick, not getting a recommended test, treatment or follow-up care, not filling a prescription, or not seeing a dentist when needed because of costs. On each of these indicators, more than two-fifths of lower-income adults in the U.S. said they went without needed care because of costs in the past year.
- **Healthy lives:** The U.S. ranks last overall with poor scores on all three indicators of healthy lives. The U.S. and U.K. had much higher death rates in 1998 from conditions amenable to medical care—with rates 25 to 50 percent higher than Canada and Australia. Overall, Australia ranks highest on healthy lives, scoring first or second on all of the indicators.

### Summary and Implications

Findings in this report confirm many of the findings from the earlier two editions of *Mirror, Mirror*.<sup>8</sup> The U.S. ranks last of six nations overall. As in the earlier editions, the U.S. ranks last on indicators of patient safety, efficiency, and equity. New Zealand,

Australia, and the U.K. continue to demonstrate superior performance, with Germany joining their ranks of top performers. The U.S. is first on preventive care, and second only to Germany on waiting times for specialist care and non-emergency surgical care, but weak on access to needed services and ability to obtain prompt attention from physicians.

Any attempt to assess the relative performance of countries has inherent limitations. These rankings summarize evidence on measures of high performance based on national mortality data and the perceptions and experiences of patients and physicians. They do not capture important dimensions of effectiveness or efficiency that might be obtained from medical records or administrative data. Patients' and physicians' assessments might be affected by their experiences and expectations, which could differ by country and culture.

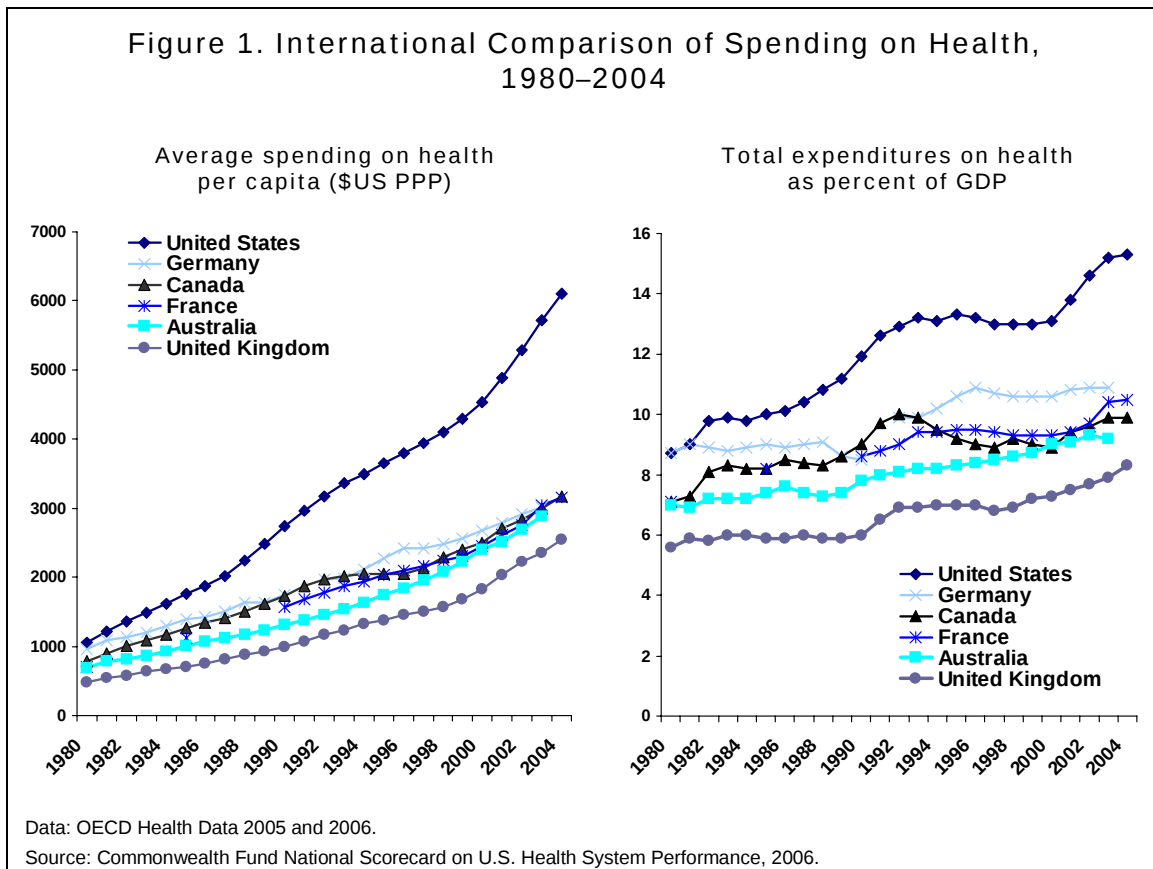
The findings indicate room for improvement across all of the countries, especially in the U.S. If the health care system is to perform according to patients' expectations, the nation will need to remove financial barriers to care and improve the delivery of care. Disparities in terms of access to services signal the need to expand insurance to cover the uninsured and to ensure that all Americans have an accessible medical home. The U.S. must also accelerate its efforts to adopt health information technology and ensure an integrated medical record and information system that is accessible to providers and patients.

While many U.S. hospitals and health systems are dedicated to improving the process of care to achieve better safety and quality, the U.S. can also learn from innovations in other countries—including public reporting of quality data, payment systems that reward high-quality care, and a team approach to management of chronic conditions. Based on these patient and physician reports, the U.S. could improve the delivery, coordination, and equity of the health care system by drawing from best practices both within the U.S. and around the world.

# MIRROR, MIRROR ON THE WALL: AN INTERNATIONAL UPDATE ON THE COMPARATIVE PERFORMANCE OF AMERICAN HEALTH CARE

## INTRODUCTION

Health care leaders in the United States often say that the American health care system is the best in the world, despite the absence of consistent scientific evidence on performance. Like the queen in the “Snow White” fairy tale, Americans often look only at their own reflection in the mirror—failing to include international experience in assessments of the health care system. With U.S. per capita spending on health more than double the average among Organization for Economic Cooperation and Development (OECD) industrialized nations, and with the percentage of national income devoted to health care far exceeding all other nations, Americans should expect commensurate value and superior performance (Figure 1). Cross-national studies provide an opportunity to spotlight areas where the U.S. performs poorly or well and to set goals to improve the return on the nation’s substantial investment.



In the first major attempt to rank health care systems, the World Health Organization's (WHO's) *World Health Report, 2000* placed the U.S. health system 37th in the world.<sup>9</sup> This called into question the value Americans receive for their investment in health care. The U.S. ranked 24th in terms of "health attainment," even lower (32nd) in terms of "equity of health outcomes" across its population, and lower still (54th) in terms of "fairness of financial contributions" toward health care. In the same report, the U.S. ranked first in terms of "patient responsiveness." Some experts have criticized the report's measures, methods, and data, including the fact that the data did not include information derived directly from patients.<sup>10</sup>

Cross-national surveys of patients and their physicians offer a unique dimension that has been missing from international studies of health care system performance, including the WHO analysis. When such surveys include a common set of questions, they can overcome differences among national data systems and definitions that frustrate cross-national comparisons. Since 1998, The Commonwealth Fund has supported surveys about patients' and health professionals' experiences with their health care systems in Australia, Canada, New Zealand, the United Kingdom, and the United States.<sup>11</sup> In 2005 and 2006, Germany was included in the international survey.<sup>12</sup> The Netherlands was added in the 2006 survey of primary care physicians, but is excluded from this analysis since comparable patient-reported data are not available. Focusing on access to care, costs, and quality, these surveys allow assessments of important dimensions of health system performance. However, they have their own limitations. In addition to lacking clinical data on effectiveness of care and data from a limited number of countries, the surveys focus on only a slice of the health care quality picture—patient and primary care physician perceptions of the care they received and administered.

Yet, because these six countries have varying health care systems that serve diverse populations, the surveys offer insights for industrialized nations that—while they might have unique national contexts—face similar cost and quality issues. Comparing patient- and physician-reported experiences in these countries can inform the ongoing debate over how to make the U.S. health care system more effective and responsive to patient needs.

In 2005, The Commonwealth Fund established a Commission on a High Performance Health System to assess the overall performance of the U.S. health care system. In September 2006, the Commission released its first *National Scorecard on U.S. Health System Performance*, which ranked the nation's performance on 37 indicators, 11 of which were based on international comparisons.<sup>13</sup> This report groups indicators into the same categories outlined in the Commission's *National Scorecard*, but uses a more extensive

international data base drawing heavily on annual international surveys sponsored by The Commonwealth Fund. The five dimensions of high performance identified in the Commission's *National Scorecard* are: quality, access, efficiency, equity, and healthy lives. To add to the understanding of overall health system performance and illustrate the utility of including patient reports in health system assessments, this report also includes findings from the Fund's international surveys on the five dimensions of a high performance health system.<sup>14</sup> This report presents patients' and primary care physicians' views and an additional exhibit on health outcome measures, drawing on international comparisons reported in the Commission's *National Scorecard*.

## **METHODS**

Data are drawn from the Commonwealth Fund 2004 International Health Policy Survey, conducted by telephone in Australia, Canada, New Zealand, the United Kingdom, and the United States; the 2005 International Health Policy Survey of Sicker Adults, conducted in the same five countries plus Germany; and the Commonwealth Fund 2006 International Health Policy Survey of Primary Care Physicians, conducted in the same six countries plus the Netherlands.<sup>15</sup> The 2004 survey focuses on the primary care experiences of nationally representative samples of adults ages 18 and older in the five countries. The 2005 survey targets a representative sample of "sicker adults," defined as those who rated their health status as fair or poor, had a serious illness in the past two years, had been hospitalized for something other than a normal delivery, or had undergone major surgery in the past two years.<sup>16</sup> The 2006 survey looks at the experiences of primary care physicians.

Approximately 1,400 adults in Australia, Canada, New Zealand, and the U.S. and 3,000 adults in the U.K. were included in 2004. Approximately 700 to 750 sicker adults in Australia, Canada, and New Zealand and 1,500 or more in the U.K., U.S., and Germany were included in 2005. In 2006, about 1,000 physicians in Australia, Germany, the U.K., and the U.S. and 500 to 600 in Canada and New Zealand were included. The total sample across all countries was 8,672 adults in 2004, 6,958 sicker adults in 2005, and 5,157 primary care physicians in 2006.

The 2004 survey focuses on patients' self-reported experiences getting and using health care services, as well as their opinions on health system structure and recent reforms. The 2005 survey examines sicker patients' views of the health care system, quality of care, care coordination, medical errors, patient-physician communication, waiting times, and access problems. The 2006 survey looks at primary care physicians' experiences providing care to patients, as well as the use of information technology and teamwork in

the provision of care. Further details of the survey methodology are described in the [Methodology Appendix](#) and elsewhere.<sup>17</sup>

For this report, we selected and grouped indicators from these three surveys using the *National Scorecard's* dimensions of quality. Quality was measured by 39 indicators, broken down into four areas (17 right care measures, five safe care measures, six coordinated care measures, and 11 patient-centered care measures). There are 10 access indicators (three for cost-related access problems, and seven indicators of timeliness of care), and eight efficiency indicators. For the equity measure, we compared experiences of adults with incomes above or below national median incomes to examine low-income experiences across countries and differences between those with lower and higher incomes for each of nine indicators. For the healthy lives dimension, we compiled three indicators from the OECD and the WHO.<sup>18</sup>

In all, 69 indicators of performance are included. We ranked countries by calculating means and ranking scores from highest to lowest (where 1 equals the highest score) across the six countries. For ties, the tied observations were both assigned the average score that would be assigned if no tie had occurred. For each Scorecard domain of quality, a summary ranking was calculated by averaging the individual ranked scores within each country and ranking these averages from highest (value=1) to lowest (value=6) score. (For more details, see the [Methodology Appendix](#).)

## RESULTS

The U.S. ranks last overall across the five dimensions of a high performance health system. Figure 2 provides a snapshot of how the six nations rank on the domains of quality, access, efficiency, equity, and healthy lives. The U.K. ranks first overall, scoring highest on quality, efficiency and equity. Germany, which ranks second overall, scores best of the six countries in terms of access. Australia ranks highest on the healthy lives indicators. Canada and the U.S. rank fifth and sixth overall, respectively.

Figure 2. Six Nation Summary Scores on Health System Performance

|                                        | AUS            | CAN            | GER            | NZ             | UK             | US             |
|----------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>Overall Ranking</b>                 | <b>3.5</b>     | <b>5</b>       | <b>2</b>       | <b>3.5</b>     | <b>1</b>       | <b>6</b>       |
| <b>Quality Care</b>                    | <b>4</b>       | <b>6</b>       | <b>2.5</b>     | <b>2.5</b>     | <b>1</b>       | <b>5</b>       |
| Right Care                             | 5              | 6              | 3              | 4              | 2              | 1              |
| Safe Care                              | 4              | 5              | 1              | 3              | 2              | 6              |
| Coordinated Care                       | 3              | 6              | 4              | 2              | 1              | 5              |
| Patient-Centered Care                  | 3              | 6              | 2              | 1              | 4              | 5              |
| <b>Access</b>                          | <b>3</b>       | <b>5</b>       | <b>1</b>       | <b>2</b>       | <b>4</b>       | <b>6</b>       |
| <b>Efficiency</b>                      | <b>4</b>       | <b>5</b>       | <b>3</b>       | <b>2</b>       | <b>1</b>       | <b>6</b>       |
| <b>Equity</b>                          | <b>2</b>       | <b>5</b>       | <b>4</b>       | <b>3</b>       | <b>1</b>       | <b>6</b>       |
| <b>Healthy Lives</b>                   | <b>1</b>       | <b>3</b>       | <b>2</b>       | <b>4.5</b>     | <b>4.5</b>     | <b>6</b>       |
| <b>Health Expenditures per Capita*</b> | <b>\$2,876</b> | <b>\$3,165</b> | <b>\$3,005</b> | <b>\$2,083</b> | <b>\$2,546</b> | <b>\$6,102</b> |

Note: 1=highest ranking, 6=lowest ranking.

\* Health expenditures per capita figures are adjusted for differences in cost of living. Source: OECD, 2004.

Health expenditures data are from 2004 except Australia and Germany (2003).

Source: Calculated by The Commonwealth Fund based on the Commonwealth Fund 2004 International Health Policy Survey, the Commonwealth Fund 2005 International Health Policy Survey of Sicker Adults, the 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians, and the Commonwealth Fund Commission on a High Performance Health System National Scorecard.

The top-performing and lowest-performing countries have been relatively stable over time (Figure 3). The U.S. ranked lowest in editions of this report released in 2004 and 2006. Last year, Germany led the six nations. This year, U.K. performance improved to first with inclusion of data from the 2006 survey of primary care physicians, reflecting in part the dedicated effort made in the U.K. to implement a health information system that supports physicians' efforts to provide quality care and a payment system for primary care physicians that rewards high quality.

Figure 3. Overall Ranking

|                                       | AUS     | CAN     | GER     | NZ      | UK      | US      |
|---------------------------------------|---------|---------|---------|---------|---------|---------|
| Overall Ranking (2007 edition)        | 3.5     | 5       | 2       | 3.5     | 1       | 6       |
| Overall Ranking (2006 edition)        | 4       | 5       | 1       | 2       | 3       | 6       |
| Overall Ranking (2004 edition)        | 2       | 4       | n/a     | 1       | 3       | 5       |
| Health Expenditures per Capita, 2004* | \$2,876 | \$3,165 | \$3,005 | \$2,083 | \$2,546 | \$6,102 |

Note: 1=highest ranking, 6=lowest ranking.

\* Health expenditures per capita figures are adjusted for differences in cost of living. Source: OECD, 2004. Health expenditures data are from 2004 except Australia and Germany (2003).

Source: Calculated by The Commonwealth Fund based on the Commonwealth Fund 2004 International Health Policy Survey, the Commonwealth Fund 2005 International Health Policy Survey of Sicker Adults, the 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians; the Commonwealth Fund Commission on a High Performance Health System National Scorecard; K. Davis, C. Schoen, S. C. Schoenbaum, A.-M. J. Audet, M. M. Doty, and K. Tenney, *Mirror, Mirror on the Wall: Looking at the Quality of American Health Care Through the Patient's Lens* (New York: The Commonwealth Fund, Jan. 2004); and K. Davis, C. Schoen, S. C. Schoenbaum, A.-M. J. Audet, M. M. Doty, A. L. Holmgren, and J. L. Kriss, *Mirror, Mirror on the Wall: An Update on the Quality of American Health Care Through the Patient's Lens* (New York: The Commonwealth Fund, Apr. 2006).

## QUALITY

High-quality care is defined in the Commission's *National Scorecard* as care that is effective or "right," safe, coordinated, and patient-centered. Averaging the scores in these four areas, Germany ranks first, and Canada last, and the U.S. next-to-last. (Figure 2).

### Right Care

In its discussion of "right care," the Commission's *National Scorecard* states, "An important measure of quality in health care is the underuse of treatments that, according to evidence-based guidelines, are effective and appropriate for a given condition—in other words, *the right care*."<sup>19</sup> In this report, the indicators used to define right care are grouped into two categories: prevention and chronic care (Figure 4a).

Figure 4a. Right Care Measures

|                                                                                                                     | Source | AUS         | CAN         | GER         | NZ         | UK          | US          |
|---------------------------------------------------------------------------------------------------------------------|--------|-------------|-------------|-------------|------------|-------------|-------------|
| <b>Overall Ranking</b>                                                                                              |        | <b>5</b>    | <b>6</b>    | <b>3</b>    | <b>4</b>   | <b>2</b>    | <b>1</b>    |
| <b>Prevention</b>                                                                                                   |        |             |             |             |            |             |             |
| Women ages 25–64 who had Pap test in past 2 years                                                                   | 2004   | 68%<br>(4)  | 70%<br>(2)  | n/a         | 69%<br>(3) | 58%<br>(5)  | 85%<br>(1)  |
| Women ages 50–64 who had a mammogram in past 2 years                                                                | 2004   | 71<br>(3.5) | 71<br>(3.5) | n/a         | 77<br>(2)  | 63<br>(5)   | 84<br>(1)   |
| Adults age 65 and older who had a flu shot in past year                                                             | 2004   | 77★<br>(1)  | 66<br>(5)   | n/a         | 67<br>(4)  | 74<br>(2)   | 72<br>(3)   |
| Receive reminders for preventive care                                                                               | 2004   | 37<br>(5)   | 38<br>(4)   | n/a         | 44<br>(3)  | 49<br>(2)   | 50★<br>(1)  |
| Doctor did not ask if emotional issues were affecting health                                                        | 2004   | 67<br>(3)   | 62★<br>(1)  | n/a         | 71<br>(4)  | 72<br>(5)   | 63<br>(2)   |
| Did not receive advice from doctor on diet and exercise                                                             | 2005   | 41<br>(3)   | 40<br>(2)   | 54<br>(5.5) | 47<br>(4)  | 54<br>(5.5) | 35★<br>(1)  |
| Diabetics receiving all four recommended services†                                                                  | 2005   | 41<br>(4)   | 38<br>(6)   | 55<br>(3)   | 40<br>(5)  | 58★<br>(1)  | 56<br>(2)   |
| Hypertensive patients receiving blood pressure and cholesterol check in past year                                   | 2005   | 78<br>(4)   | 85<br>(2.5) | 91★<br>(1)  | 77<br>(5)  | 72<br>(6)   | 85<br>(2.5) |
| Physicians reporting it is easy to print out a list of patients who are due or overdue for tests or preventive care | 2006   | 62<br>(4)   | 13<br>(6)   | 64<br>(3)   | 82★<br>(1) | 77<br>(2)   | 20<br>(5)   |
| Patients sent computerized reminder notices for preventive or follow-up care                                        | 2006   | 65<br>(3)   | 8<br>(6)    | 28<br>(4)   | 93★<br>(1) | 83<br>(2)   | 18<br>(5)   |

|                                                                                                                                                  | Source | AUS         | CAN        | GER        | NZ          | UK         | US        |
|--------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------|------------|------------|-------------|------------|-----------|
| <b>Chronic Care</b>                                                                                                                              |        |             |            |            |             |            |           |
| Chronically ill not receiving self-care plan*                                                                                                    | 2005   | 49<br>(4)   | 35*<br>(1) | 63<br>(6)  | 43<br>(3)   | 53<br>(5)  | 41<br>(2) |
| Doctor sometimes, rarely, or never reviewed all medications, including those prescribed by other doctors (base: taking prescriptions regularly)  | 2005   | 46<br>(5.5) | 39<br>(2)  | 38*<br>(1) | 46<br>(5.5) | 44<br>(4)  | 40<br>(3) |
| Doctor sometimes, rarely, or never explained the side effect of medications (base: taking prescriptions regularly)                               | 2005   | 37<br>(2)   | 41<br>(3)  | 50<br>(6)  | 33*<br>(1)  | 48<br>(5)  | 47<br>(4) |
| Primary care practices that are well prepared to provide optimal care for patients with multiple chronic conditions                              | 2006   | 69<br>(3)   | 55<br>(6)  | 93*<br>(1) | 67<br>(5)   | 76<br>(2)  | 68<br>(4) |
| Physicians reporting it is easy to print out a list of patients by diagnosis or health risk                                                      | 2006   | 68<br>(4)   | 26<br>(6)  | 81<br>(2)  | 80<br>(3)   | 92*<br>(1) | 37<br>(5) |
| Physicians reporting it is easy to print out a list of all medications taken by individual patients, including those prescribed by other doctors | 2006   | 74<br>(2)   | 25<br>(6)  | 55<br>(4)  | 72<br>(3)   | 88*<br>(1) | 37<br>(5) |
| Primary care practices that routinely use non-physician clinicians to help manage patients with chronic diseases                                 | 2006   | 38<br>(4)   | 25<br>(6)  | 62<br>(2)  | 57<br>(3)   | 73*<br>(1) | 36<br>(5) |

Note: Country ranking for each item indicated in parentheses.

\* Best country is significantly different from worst country at  $p \leq .05$ .

Source: Calculated by The Commonwealth Fund based on the Commonwealth Fund 2004 International Health Policy Survey, the Commonwealth Fund 2005 International Health Policy Survey of Sicker Adults, and the 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians.

**Prevention:** Preventive care is crucial to an effective health care delivery system.

When utilized appropriately, preventive care services such as Pap tests, mammograms, flu vaccinations, reminders for preventive care visits, and discussions of emotional and lifestyle issues can increase the effectiveness of care through the early diagnosis or prevention of illness. The 2005 survey asked diabetic respondents whether, in the past year, they had their cholesterol checked, an eye exam, and their feet examined, and whether, in the past six months, they had their hemoglobin (HbA1c) checked. Of respondents with hypertension, the survey asked if their blood pressure and cholesterol were checked in the past year. In 2006, primary care physicians were asked how easy it is to print a list of their patients who are due or overdue for tests or preventive care and if they sent their patients computerized reminders for preventive or follow-up care.

Consistent with previous editions of *Mirror, Mirror*, the U.S. does especially well in providing preventive care for its population. Although the differences were not significant among the six countries, among women ages 25 to 64, American respondents reported the highest rates of getting Pap smears in the past two years (85%) and, among women ages 50 to 64, the highest rate of mammograms in the past two years (84%). Germany scores highest on the proportion of hypertensive patients receiving both blood pressure and cholesterol checks in the past year. Respondents in the U.S. were more likely than those in other countries to receive preventive care reminders and advice from their doctors on

diet and exercise. In terms of using health information technology (IT) to monitor patients, the U.S. and Canada score relatively poorly.

***Chronic care:*** Carefully managing the care of patients with chronic illnesses is another sign of an effective health care system. As a measure of this, the 2005 survey asked respondents with chronic diseases if they were receiving a self-care plan and if their doctor reviewed all medications and explained their side effects. In 2006, the international survey asked primary care physicians if their practices were well prepared to provide optimal care to patients with multiple chronic conditions, and if they could easily print out lists of patients by diagnosis or health risk, or if they could easily print a list of all their patients' medications including those prescribed by other doctors. The survey also asked if practices routinely used non-physician clinicians such as nurses to help manage patients with chronic conditions.

Overall, the U.K. outperforms the other countries on three of the seven chronic care management indicators, while the U.S. and Canada lag in promoting quality services in this domain. Different countries, however, did best on different aspects of chronic care. U.K. physicians are most likely to report it is easy to print out a list of all their patients by diagnosis or health risk as well as a list of all their medications. This finding may reflect the major push made by the U.K. government to implement health information technology (IT). This high level of IT use bolsters the U.K.'s chronic care score, while low levels pull down the U.S. and Canada's scores. Physicians in the U.K. and in Germany are much more likely to report routinely using non-physician clinicians to manage patients with chronic conditions; primary care physicians in the U.S. and Canada are least likely to report this practice. Primary care physicians in Germany are most likely to report being well prepared to provide optimal care for patients with multiple chronic conditions (93%), especially when compared with Canadian physicians (55%). German patients were most likely to report that their physicians reviewed medications with them. Patients in New Zealand rated their physicians highest on explaining side effects of medications, and Canadian patients with chronic conditions were most likely to report being given a self-help plan.

The U.S. ranks highest on right care overall, but performs poorly in comparison to other industrialized nations on quality chronic care management. The U.K and Germany scored second and third place, respectively, in terms of right care. The increased use of IT in the U.K plays a large role in the country's high score on the chronic care management indicators as well as its performance on system aspects of preventive care delivery. All countries, however, have room for improvement to ensure patients receive effective care.

## Safe Care

The Institute of Medicine describes safe care as “avoiding injuries to the patients from the care that is intended to help them.”<sup>20</sup> The 2005 survey asked sicker adults about their perceptions of medication or medical errors by a doctor, hospital, or pharmacist.<sup>21</sup> It also asked patients who had had a lab test ordered in the prior two years if they had been given incorrect results or experienced delays in being notified about abnormal results. The survey also asked questions regarding the safety of hospital treatment, such as whether patients developed infections while in the hospital. Health IT can help keep patients safe by alerting physicians to potential problems with drug doses or interactions. The 2006 survey asked primary care physicians if they receive computerized alerts or prompts about potential hazards to their patients’ safety.

Figure 4b. Safe Care Measures

|                                                                                                                                                                                                     | Source | AUS          | CAN          | GER          | NZ          | UK           | US          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------------|--------------|--------------|-------------|--------------|-------------|
| <b>Overall Benchmark Ranking</b>                                                                                                                                                                    |        | <b>4</b>     | <b>5</b>     | <b>1</b>     | <b>3</b>    | <b>2</b>     | <b>6</b>    |
| Given the wrong medication or wrong dose by a doctor, nurse, hospital, or pharmacist in past 2 years                                                                                                | 2005   | 10%<br>(3.5) | 10%<br>(3.5) | 10%<br>(3.5) | 9%*<br>(1)  | 10%<br>(3.5) | 13%<br>(6)  |
| Believed a medical mistake was made in your treatment or care in past 2 years                                                                                                                       | 2005   | 13<br>(2.5)  | 15<br>(5.5)  | 13<br>(2.5)  | 14<br>(4)   | 12*<br>(1)   | 15<br>(5.5) |
| Either been given incorrect results for a diagnostic or lab test or experienced delays in being notified about abnormal test results in past 2 years (base: had a lab test ordered in past 2 years) | 2005   | 14<br>(3.5)  | 18<br>(5)    | 9*<br>(1)    | 14<br>(3.5) | 11<br>(2)    | 23<br>(6)   |
| Hospitalized patients reporting infection in hospital                                                                                                                                               | 2005   | 8<br>(4)     | 7<br>(2.5)   | 3*<br>(1)    | 10<br>(5.5) | 10<br>(5.5)  | 7<br>(2.5)  |
| Doctor receives a computerized alert or prompt about a potential problem with drug dose or interaction                                                                                              | 2006   | 80<br>(3)    | 10<br>(6)    | 40<br>(4)    | 87<br>(2)   | 91*<br>(1)   | 23<br>(5)   |

Note: Country ranking for each item indicated in parentheses.

\* Best country is significantly different from worst country at  $p \leq .05$ .

Source: Calculated by The Commonwealth Fund based on the Commonwealth Fund 2005 International Health Policy Survey of Sicker Adults, and the 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians.

Figure 4b summarizes country findings on each of these indicators of safety and, as in previous reports, the U.S. continues to rank last on safe care. Sicker adults in the U.S. reported the highest rates of medical and medication errors, and among those who had a lab test in the previous two years, sicker adults in the U.S. were significantly more likely to have been given incorrect results or experienced delays in being notified about abnormal results. The U.S. also lags in terms of IT use. Overall, primary care physicians’ use of IT to alert them to potential problems with patients’ drug doses or interactions ranges widely. Only 23 percent of physicians in the U.S. reported receiving such alerts compared with 91 percent in the U.K.

The U.S. ranks last out of the six countries on safe care overall, while Germany ranks first. Differences in education, cultural norms, and media attention, as well as the subjective nature of communication between doctors and patients, might influence patients' perceptions of error. Therefore, caution must be used in relying only on patients' perceptions to rank safety. Nevertheless, these findings indicate that both Americans and Canadians have serious concerns about medical errors.

### **Coordinated Care**

In its discussion of coordinated care, the Commission's *National Scorecard* report states, "Coordination of patient care throughout the course of treatment and across various sites of care helps to ensure appropriate follow-up treatment, minimize the risk of error, and prevent complications. . . . Failure to properly coordinate and integrate care raises the costs of treatment, undermines delivery of appropriate, effective care, and puts patients' safety at risk."<sup>22</sup> The 2005 international survey inquired about coordination of hospital care. Respondents were asked whether the hospital arranged a follow-up visit with a doctor or other professional when the patient was being discharged and whether a doctor discussed the medications patients were taking before they entered the hospital as well as their new prescriptions as they were leaving the hospital. It also addressed sicker adults' experiences with care coordination in doctors' offices. The survey asked whether they have a regular doctor, if their medical records or test results did not reach a physician's office in time for an appointment, or they were sent for duplicate tests by different health care professionals. In the 2006 survey, primary care physicians were asked if they get information back about the results of referrals for "almost all" patients they have referred to another doctor; if they receive a full report from the hospital less than two weeks from when their patients were discharged; if they receive computerized alerts or prompts to provide patients with test results; and if their patients are sent computerized reminder notices for preventive or follow-up care (Figure 4c).

Figure 4c. Coordinated Care Measures

|                                                                                                                                                                                          | Source | AUS          | CAN         | GER        | NZ           | UK          | US         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------------|-------------|------------|--------------|-------------|------------|
| <b>Overall Benchmark Ranking</b>                                                                                                                                                         |        | <b>3</b>     | <b>6</b>    | <b>4</b>   | <b>2</b>     | <b>1</b>    | <b>5</b>   |
| Hospital did not make arrangements for follow-up visits with a doctor or other health care professional when leaving the hospital                                                        | 2005   | 23%<br>(2.5) | 30%<br>(5)  | 50%<br>(6) | 23%<br>(2.5) | 19%★<br>(1) | 27%<br>(4) |
| No one discussed other medications you were using before you were hospitalized (base: taking prescription before hospitalization and given a new prescription when leaving the hospital) | 2005   | 23<br>(2)    | 28<br>(4)   | 14★<br>(1) | 31<br>(5)    | 27<br>(3)   | 33<br>(6)  |
| Have a regular doctor                                                                                                                                                                    | 2005   | 92<br>(4.5)  | 92<br>(4.5) | 97★<br>(1) | 94<br>(3)    | 96<br>(2)   | 84<br>(6)  |
| When primary care physicians refer a patient to another doctor, they get information back about the results of the referral for “almost all” patients                                    | 2006   | 76<br>(3)    | 62<br>(5)   | 68<br>(4)  | 82★<br>(1)   | 75<br>(2)   | 37<br>(6)  |
| Percent of primary care physicians receive a full report from the hospital less than 2 weeks from when their patients were discharged                                                    | 2006   | 71<br>(3)    | 36<br>(6)   | 47<br>(5)  | 82★<br>(1)   | 48<br>(4)   | 73<br>(2)  |
| Doctor receives computerized alert or prompt to provide patients with test results                                                                                                       | 2006   | 52<br>(3)    | 6<br>(6)    | 32<br>(4)  | 51<br>(2)    | 53★<br>(1)  | 15<br>(5)  |

Note: Country ranking for each item indicated in parentheses.

★ Best country is significantly different from worst country at  $p \leq .05$ .

Source: Calculated by Commonwealth Fund based on the Commonwealth Fund 2005 International Health Policy Survey of Sicker Adults and the 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians.

Across all the coordinated care indicators, Germany ranks first and the U.S. ranks last. Patients in the U.S. are least likely to report having a regular doctor (84%) while patients in Germany are most likely to have this connection (97%). Hospitalized patients in Germany were the most likely to report not having arrangements made for follow-up visits when leaving the hospital (50%). Yet only 14 percent of German hospitalized patients reported having no one discuss medications they were taking before they were hospitalized. One of three (33%) respondents in the U.S. and one of four (28%) in Canada reported not having such a conversation about medications.

Effective communication among physicians and hospitals is essential for high-quality care. Physicians in New Zealand are most likely to report getting information back about the results of referrals, with 82 percent of respondents saying they got information back from “almost all” patients they have referred to another doctor. Only 37 percent of physicians in the U.S. received this information. New Zealand also scores well in terms of physicians receiving hospital discharge reports on their patients in a timely manner. Physicians in the U.S. and Canada are least likely to receive computerized alerts or prompts to provide patients with test results (15% and 6%, respectively), compared with 53 percent of physicians in the U.K. and 51 percent in New Zealand.

## Patient-Centeredness

The Commission's *National Scorecard* defines patient-centeredness as "care delivered with the patient's needs and preferences in mind."<sup>23</sup> The surveys explored issues related to provider-patient communication, physician continuity and feedback, and engagement and patient preferences. New Zealand clearly outperforms the group of six countries with respect to engagement and patient preference, communication, and continuity and feedback measures, while the U.S. falls short, ranking second-to-last (Figure 4d).

Figure 4d. Patient-Centeredness Measures

|                                                                                                                                                                | Source | AUS          | CAN         | GER          | NZ           | UK           | US           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------------|-------------|--------------|--------------|--------------|--------------|
| <b>Overall Benchmark Ranking</b>                                                                                                                               |        | <b>3</b>     | <b>6</b>    | <b>2</b>     | <b>1</b>     | <b>4</b>     | <b>5</b>     |
| <b>Communication</b>                                                                                                                                           |        |              |             |              |              |              |              |
| Left a doctor's appointment without getting important questions answered in the past 2 years                                                                   | 2005   | 20%<br>(4)   | 21%<br>(5)  | 17%<br>(2.5) | 17%<br>(2.5) | 15%*<br>(1)  | 24%<br>(6)   |
| Doctor sometimes, rarely, or never listens carefully to patient's health concerns                                                                              | 2004   | 9<br>(2)     | 12<br>(4)   | n/a          | 7*<br>(1)    | 11<br>(3)    | 15<br>(5)    |
| Did not receive clear instructions about symptoms to watch for and when to seek further care when leaving the hospital (among those who had been hospitalized) | 2005   | 18<br>(4)    | 17<br>(3)   | 23<br>(5)    | 14<br>(2)    | 26<br>(6)    | 11*<br>(1)   |
| Before receiving a treatment or procedure while hospitalized, risks were not explained in an understandable way (among those who had been hospitalized)        | 2005   | 18<br>(5)    | 21<br>(6)   | 12*<br>(1)   | 17<br>(4)    | 16<br>(3)    | 14<br>(2)    |
| <b>Continuity and Feedback</b>                                                                                                                                 |        |              |             |              |              |              |              |
| Has a regular doctor, been with same doctor 5 years or more                                                                                                    | 2005   | 61%<br>(4.5) | 65%<br>(3)  | 78%*<br>(1)  | 61%<br>(4.5) | 69%<br>(2)   | 50%<br>(6)   |
| Doctor routinely receives data on patient satisfaction and experiences with care                                                                               | 2006   | 29<br>(4)    | 11<br>(6)   | 27<br>(5)    | 33<br>(3)    | 89*<br>(1)   | 48<br>(2)    |
| <b>Engagement and Patient Preferences</b>                                                                                                                      |        |              |             |              |              |              |              |
| Regular doctor sometimes, rarely, or never tells you about care, treatment choices and asks opinions                                                           | 2005   | 46%<br>(4)   | 40%<br>(2)  | 42%<br>(3)   | 37%*<br>(1)  | 50%<br>(5.5) | 50%<br>(5.5) |
| Regular doctor sometimes, rarely, or never makes clear the specific goals for care or treatment                                                                | 2005   | 21<br>(2)    | 22<br>(3.5) | 22<br>(3.5)  | 16*<br>(1)   | 27<br>(5)    | 27<br>(5.5)  |
| Regular doctor sometimes, rarely, or never gives clear instructions about symptoms, when to seek further care                                                  | 2005   | 19<br>(2)    | 24<br>(4)   | 21<br>(3)    | 16*<br>(1)   | 27<br>(5)    | 28<br>(6)    |
| Doctors or nurses did not involve patient as much as he/she wanted to be in deciding about care, treatment, or tests (among those who had been hospitalized)   | 2005   | 22<br>(4.5)  | 27<br>(6)   | 21<br>(3)    | 19<br>(2)    | 22<br>(4.5)  | 16*<br>(1)   |
| Hospital staff sometimes, rarely, or never did everything they could to help control pain (base: those who had been hospitalized and experienced pain)         | 2005   | 17*<br>(1)   | 19<br>(3)   | 18<br>(2)    | 21<br>(4.5)  | 21<br>(4.5)  | 26<br>(6)    |

Note: Country ranking for each item indicated in parentheses.

\* Best country is significantly different from worst country at  $p \leq .05$ .

Source: Calculated by Commonwealth Fund based on the Commonwealth Fund 2004 International Health Policy Survey, the Commonwealth Fund 2005 International Health Policy Survey of Sicker Adults, and the 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians.

**Communication:** Communication measures included whether patients had left their doctors' offices without having all their important questions answered and whether physicians had listened carefully to patients' health concerns. Patients who had been hospitalized were asked whether risks had been explained to them in an understandable way and whether they had received clear instructions about what to watch for or when to seek further care. U.S. respondents fared relatively poorly on the first two measures of leaving the doctor's office with questions unanswered and having the doctor listen carefully to concerns.

Alternatively, only 15 percent of patients in the U.K. reported leaving the doctor's office without having all their important questions answered. Fifteen percent of U.S. respondents said that their doctor sometimes, rarely, or never listened carefully to their health concerns, compared with 7 percent of respondents in New Zealand. Yet only one of 10 (11%) U.S. respondents who had been hospitalized left the hospital without clear instructions about symptoms to watch for and when to seek further care, compared with 26 percent of patients in the U.K. American patients fared better on having risks explained to them in an understandable way before receiving treatment. Only 14 percent of hospitalized respondents in the U.S. and 12 percent in Germany reported not having such a discussion, compared with 21 percent of hospitalized patients in Canada.

**Continuity and feedback:** The U.S. scores in the midrange on continuity and feedback measures. Only half of U.S. respondents had been with the same doctor for five years or more, compared with more than three-quarters (78%) of respondents in Germany. The U.S. ranks second among the six countries in terms of physicians routinely receiving data on patient satisfaction and experiences with care. One of two (48%) American physicians and one of 10 Canadian physicians receive such data. However, the U.K. continues to set a gold-standard for continuity and feedback: nearly nine of 10 (89%) physicians in the U.K. receive patient satisfaction feedback.

**Engagement and patient preferences:** The surveys measured patient engagement by asking respondents whether their regular doctor sometimes, rarely, or never tells them about their options for care and asks their opinions; makes clear the specific goals of treatment; or gives clear instructions about symptoms to watch for and when to seek treatment. Other indicators asked respondents who had been hospitalized whether their doctors or nurses involved them as much as they would have liked in deciding about care, treatment, or tests, and among that subset, of those who also experienced pain, if it was controlled.

While the U.S. set the benchmark in terms of patient involvement in hospital-based care and treatment decisions; overall, involvement in decision-making remains a problem for U.S. patients, as well as those in the U.K. As shown in Figure 4d, the U.S. ranks last or tied for last on four of the five measures of patient engagement. New Zealand ranks highest on measures of being informed about treatment options, understanding the goals of care, and receiving instructions about symptoms and when to seek further care.

## **ACCESS**

Good access to health care involves the ability of patients to obtain affordable care in a timely manner. The 2005 survey of sicker adults included questions about whether patients were able to access needed care. Specifically, respondents were asked if they filled prescriptions; got a recommended test, treatment, or follow-up care; or visited a doctor or clinic when they had a medical problem, regardless of cost. The survey also assessed out-of-pocket expenditures for patients in each of the six countries. The 2005 survey also asked about patients' ability to get timely care. It also asked sicker patients about waiting times for appointments with a regular physician, difficulty receiving care on nights and weekends, waiting times for emergency care, and waiting times for admission for elective or non-emergency surgery. The 2006 survey asked physicians if they thought their patients have difficulty paying for care. It also included additional questions regarding primary care practices that see patients before 8:30 a.m., after 6:00 p.m., or on weekends; practices that have an arrangement for patients to see a doctor or nurse when the practice is closed; and physicians who think their patients rarely or never experience long waiting times for diagnostic tests (Figure 5).

Figure 5. Access Measures

|                                                                                                                                                                                          | Source | AUS         | CAN         | GER         | NZ         | UK          | US         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------|-------------|-------------|------------|-------------|------------|
| <b>Overall Benchmark Ranking</b>                                                                                                                                                         |        | <b>3</b>    | <b>5</b>    | <b>1</b>    | <b>2</b>   | <b>4</b>    | <b>6</b>   |
| <b>Cost-Related Access Problems</b>                                                                                                                                                      |        |             |             |             |            |             |            |
| Did not fill a prescription; skipped recommended medical test, treatment, or follow-up; or had a medical problem but did not visit doctor or clinic in the past 2 years, because of cost | 2005   | 34%<br>(4)  | 26%<br>(2)  | 28%<br>(3)  | 38%<br>(5) | 13%*<br>(1) | 51%<br>(6) |
| Out of pocket expenses for medical bills more than \$1000 in the past year, U.S. \$ equivalent                                                                                           | 2005   | 14<br>(4.5) | 14<br>(4.5) | 8<br>(2.5)  | 8<br>(2.5) | 4*<br>(1)   | 34<br>(6)  |
| Physicians think their patients often have difficulty paying out-of-pocket costs                                                                                                         | 2006   | 27<br>(3)   | 25<br>(2)   | 35<br>(4)   | 39<br>(5)  | 14*<br>(1)  | 42<br>(6)  |
| <b>Timeliness of Care</b>                                                                                                                                                                |        |             |             |             |            |             |            |
| Somewhat or very difficult to get care on nights or weekends without going to ER (base: sought care)                                                                                     | 2005   | 59%<br>(5)  | 54%<br>(4)  | 25%*<br>(1) | 28%<br>(2) | 39%<br>(3)  | 61%<br>(6) |
| Primary care practices that see patients before 8:30 a.m., after 6:00 p.m., or on weekends                                                                                               | 2006   | 86<br>(2)   | 64<br>(5)   | 93*<br>(1)  | 66<br>(4)  | 60<br>(6)   | 70<br>(3)  |
| Primary care practices that have an arrangement where patients can be seen by a doctor or nurse if needed when the practice is closed, not including ER                                  | 2006   | 81<br>(3)   | 47<br>(5)   | 76<br>(4)   | 90*<br>(1) | 87<br>(2)   | 40<br>(6)  |
| Last time needed medical attention had to wait 6 or more days for an appointment                                                                                                         | 2005   | 10<br>(2)   | 36<br>(6)   | 13<br>(3)   | 3*<br>(1)  | 15<br>(4)   | 23<br>(5)  |
| Primary care physicians who think their patients rarely or never experience long waiting times for diagnostic tests                                                                      | 2006   | 55<br>(2)   | 9<br>(5)    | 76*<br>(1)  | 19<br>(4)  | 6<br>(6)    | 48<br>(3)  |
| Waiting time for emergency care was greater than 2 hours (base: used an emergency room in past 2 years)                                                                                  | 2005   | 33<br>(5)   | 42<br>(6)   | 15*<br>(1)  | 26<br>(2)  | 30<br>(4)   | 29<br>(3)  |
| Waiting time of 4 months or more for elective/non-emergency surgery (base: those needing elective surgery in past year)                                                                  | 2005   | 19<br>(3)   | 33<br>(5)   | 6*<br>(1)   | 20<br>(4)  | 41<br>(6)   | 8<br>(2)   |

Note: Country ranking for each item indicated in parentheses.

\* Best country is significantly different from worst country at  $p \leq .05$ .

Source: Calculated by Commonwealth Fund based on the Commonwealth Fund 2005 International Health Policy Survey of Sicker Adults and the 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians.

**Cost-related access problems:** The U.S. population continues to fare much worse than others surveyed in terms of going without needed care because of cost. Americans were the most likely to say they had access problems because of cost. Half (51%) said they had problems getting a recommended test, treatment, or follow-up care; filling a prescription; or visiting a doctor or clinic when they had a medical problem because of cost. U.K. patients were the least likely to report having these problems (13%). Americans were significantly more likely to have out-of-pocket costs greater than \$1000 for medical bills (34%), as opposed to only 4 percent of adults in the U.K. Physicians in the U.S. acknowledge their patients have difficulty paying for care, with 42 percent believing affordability is a problem. The source of access concerns vary by country. Patients in the U.S. face financial burdens, but if insured, they have relatively rapid access to specialized

health care services. Other countries, like the U.K and Canada, have little to no financial burden, but experience long wait times for such services.

*Timeliness of care:* Different national patterns surface for measures of timeliness, depending on the particular health care service. For instance, New Zealand scores well on the measures of short waiting times for appointments and primary care practices with arrangements for patients to receive care when the office is closed. Primary care practices in Germany are most likely to see patients before 8:30 a.m., after 6:00 p.m., or on weekends, and 76 percent of German physicians think their patients rarely or never have long waits for diagnostic tests, compared with 9 percent in Canada and 6 percent in the U.K. The U.S. and Germany had relatively short waiting times for seeing a specialist or obtaining elective, non-emergency surgery. Elective surgery waiting times were longest in the U.K., and long waits were also reported in Australia, Canada, and New Zealand. Germany ranks best on short waiting times in the ER, with Canada and Australia ranking last.

## **EFFICIENCY**

In the Commission's *National Scorecard* report, efficiency is described in the following way: "An efficient, high-value health care system seeks to maximize the quality of care and outcomes given the resources committed, while ensuring that additional investments yield net value over time."<sup>24</sup> To measure efficiency, this report looks at total national expenditures on health as a percent of GDP as well as at the percent spent on health administration and insurance. Figure 6 also shows data from the 2005 survey on adults with health problems whose medical records did not reach the doctor's office in time for an appointment, those who were sent for duplicate tests, and those who visited the emergency department for a condition that could have been treated by a regular doctor had one been available. It also reports on the incidence of hospitalized sicker adults who went to the emergency department or were re-hospitalized for complications during recovery. Indicators from the 2006 survey include primary care physicians' use of multi-disciplinary teams and practices with high clinical (IT) functions. To be defined as a primary care practice with high clinical IT functions, the practice must use seven of the following 14 functions: electronic medical records (EMRs); EMR access for other doctors, outside offices, and patients; routine electronic tasks, including ordering tests and prescriptions and accessing test results and hospital records; computerized patient reminders, prescription alerts, and test results; easy to generate lists of patients by diagnosis, medications, needed tests, or preventive care.

Figure 6. Efficiency Measures

|                                                                                                        | Source | AUS         | CAN         | GER          | NZ          | UK          | US           |
|--------------------------------------------------------------------------------------------------------|--------|-------------|-------------|--------------|-------------|-------------|--------------|
| <b>Overall Benchmark Ranking</b>                                                                       |        | <b>4</b>    | <b>5</b>    | <b>3</b>     | <b>2</b>    | <b>1</b>    | <b>6</b>     |
| Total expenditures on health as a percent of GDP**                                                     | 2004   | 9.2%<br>(3) | 9.9%<br>(4) | 10.9%<br>(5) | 8.4%<br>(2) | 8.3%<br>(1) | 15.3%<br>(6) |
| Percentage of national health expenditures spent on health administration and insurance***             | 2004   | 4.2<br>(3)  | 2.6<br>(1)  | 5.6<br>(4)   | n/a         | 3.3<br>(2)  | 7.3<br>(5)   |
| Visited ED for a condition that could have been treated by a regular doctor, had he/she been available | 2005   | 15<br>(4)   | 21<br>(5)   | 6*<br>(1)    | 9<br>(2)    | 12<br>(3)   | 26<br>(6)    |
| Medical records/test results did not reach MD office in time for appointment, in past 2 years          | 2005   | 12<br>(2)   | 19<br>(5)   | 11*<br>(1)   | 16<br>(3.5) | 16<br>(3.5) | 23<br>(6)    |
| Sent for duplicate tests by different health care professionals, in past 2 years                       | 2005   | 11<br>(4)   | 10<br>(3)   | 20<br>(6)    | 9<br>(2)    | 6*<br>(1)   | 18<br>(5)    |
| Hospitalized patients went to ER or re-hospitalized for complication after discharge                   | 2005   | 20<br>(6)   | 16<br>(4)   | 10*<br>(1)   | 15<br>(3)   | 17<br>(5)   | 14<br>(2)    |
| Practice with high clinical information functions****                                                  | 2006   | 72<br>(3)   | 8<br>(6)    | 32<br>(4)    | 87*<br>(1)  | 83<br>(2)   | 19<br>(5)    |
| Percent of primary care physicians' practices routinely using multi-disciplinary teams                 | 2006   | 32<br>(3.5) | 32<br>(3.5) | 49<br>(2)    | 30<br>(5)   | 81*<br>(1)  | 29<br>(6)    |

Note: Country ranking for each item indicated in parentheses. Health expenditures per capita figures are adjusted for differences in cost of living.

\* Best country is significantly different from worst country at  $p \leq .05$ .

\*\* Health expenditures are for 2004, except for Australia and Germany (2003). Data come from the OECD, as reported in the Commission's *National Scorecard* report.

\*\*\* Health expenditures are for 2003, except for Australia (2001) and U.K. (2002). Data come from the OECD, as reported in the Commission's *National Scorecard* report.

\*\*\*\* Primary care practice has 7 to 14 of the following functions: EMR; EMR access—other doctors, outside office, patient access to records; routine electronic-ordering of tests, prescriptions, access test results, access hospital records; computer for patient reminders, Rx alerts, prompt test results; “easy” to generate lists by diagnosis, medications, patients due for tests or preventive care. Significant differences between countries are indicated for distribution of summary variable rather than individual responses.

Source: Calculated by The Commonwealth Fund based on the Commonwealth 2005 International Health Policy Survey of Sicker Adults and the 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians.

On indicators of efficiency, the U.S. scores last overall with poor performance on the two measures of national health expenditures, as well as on measures of the use of IT and multi-disciplinary teams. Of sicker respondents who visited the emergency room, those in Germany, New Zealand, and the U.K. are less likely to have done so for a condition that could have been treated by a regular doctor, had one been available. American respondents who had been hospitalized reported fewer instances of re-hospitalizations or visits to the emergency department for complications during recovery than did respondents in most countries, although Germany performed slightly better than the U.S. on this measure (14% vs. 10%, respectively). U.S. patients were more likely to report their medical records did not reach the doctor's office in time for an appointment and to have been sent for duplicate tests. The U.K. scores significantly better than do other countries on primary care physicians' practices use of multi-disciplinary teams. Eight of 10 (81%) U.K. physicians reported using teams compared with one of three in Australia

(32%), Canada (32%), New Zealand (30%), and the U.S. (29%). New Zealand scores highest on primary care practices with high clinical IT functions. In the summary ranking, the U.K. scores first and the U.S. scores last.

## **EQUITY**

The Institute of Medicine defines equity as “providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status.”<sup>25</sup> We grouped adults by two income categories: those who reported their incomes as above the country median and those who reported their incomes as below the country median. In all six countries, adults reporting below-average incomes were more likely to report chronic health problems (not shown). Thus, reports from these lower-income adults provide particularly sensitive measures for how well each country performs in terms of meeting the needs of its most vulnerable population.

Figure 7. Equity Measures

|                                                                                        | Source | Below-Average Income |          |          |          |         |         |  | Above-Average Income |        |         |          |         |          |  | Percentage-Point Difference Between Below-Average and Above-Average Income |          |         |          |          |        |  |
|----------------------------------------------------------------------------------------|--------|----------------------|----------|----------|----------|---------|---------|--|----------------------|--------|---------|----------|---------|----------|--|----------------------------------------------------------------------------|----------|---------|----------|----------|--------|--|
|                                                                                        |        | AUS                  | CAN      | GER      | NZ       | UK      | US      |  | AUS                  | CAN    | GER     | NZ       | UK      | US       |  | AUS                                                                        | CAN      | GER     | NZ       | UK       | US     |  |
|                                                                                        |        | 4                    | 5        | 2        | 3        | 1       | 6       |  | 6                    | 4      | 2       | 3        | 1       | 5        |  | 2                                                                          | 5        | 4       | 3        | 1        | 6      |  |
| <b>Overall Ranking</b>                                                                 |        |                      |          |          |          |         |         |  |                      |        |         |          |         |          |  |                                                                            |          |         |          |          |        |  |
| Had medical problem but did not visit doctor because of cost in the past year          | 2005   | 18% (3)              | 10% (2)  | 20% (4)  | 32% (5)  | 5%* (1) | 44% (6) |  | 19% (5)              | 4% (2) | 10% (3) | 25% (6)  | 2%* (1) | 17% (4)  |  | -1 (1)                                                                     | 6 (3)    | 10 (5)  | 7 (4)    | 3 (2)    | 27 (6) |  |
| Did not get recommended test, treatment, or follow-up because of cost in the past year | 2005   | 23 (4)               | 15 (2)   | 17 (3)   | 24 (5)   | 5* (1)  | 44 (6)  |  | 20 (6)               | 7 (2)  | 12 (3)  | 19 (4.5) | 6* (1)  | 19 (4.5) |  | 3 (2)                                                                      | 8 (5)    | 5 (3.5) | 5 (3.5)  | -1 (1)   | 25 (6) |  |
| Did not fill prescription or skipped doses because of cost in the past year            | 2005   | 22 (3.5)             | 26 (5)   | 15 (2)   | 22 (3.5) | 9* (1)  | 51 (6)  |  | 19 (5)               | 10 (2) | 11 (3)  | 16 (4)   | 9* (1)  | 25 (6)   |  | 3 (2)                                                                      | 16 (5)   | 4 (3)   | 6 (4)    | 0 (1)    | 26 (6) |  |
| Needed dental care but did not see dentist because of cost in past year                | 2004   | 43 (4)               | 39 (2)   | n/a      | 41 (3)   | 24* (1) | 52 (5)  |  | 29 (4)               | 19 (2) | n/a     | 34 (5)   | 17* (1) | 25 (3)   |  | 14 (3)                                                                     | 20 (4)   | n/a     | 7 (1.5)  | 7 (1.5)  | 27 (5) |  |
| Rated doctor fair/poor                                                                 | 2004   | 9* (1.5)             | 11 (3)   | n/a      | 9* (1.5) | 12 (4)  | 22 (5)  |  | 7 (2)                | 8 (4)  | n/a     | 4* (1)   | 11 (5)  | 7 (2)    |  | 2 (2)                                                                      | 3 (3)    | n/a     | 5 (4)    | 1 (1)    | 15 (5) |  |
| Unnecessary duplication of medical tests in past 2 years                               | 2005   | 13 (4.5)             | 9 (3)    | 13 (4.5) | 7 (2)    | 5* (1)  | 21 (6)  |  | 14 (5)               | 10 (3) | 23 (6)  | 9 (2)    | 7* (1)  | 12 (4)   |  | -1 (4.5)                                                                   | -1 (4.5) | -10 (1) | -2 (2.5) | -2 (2.5) | 9 (6)  |  |
| Percent waiting 2 hours or more in ER (base: those going to ER)                        | 2005   | 38 (5)               | 45 (6)   | 15* (1)  | 26 (2)   | 29 (3)  | 32 (4)  |  | 35 (5)               | 45 (6) | 14* (1) | 28 (3)   | 30 (4)  | 27 (2)   |  | 3 (5)                                                                      | 0 (3)    | 1 (4)   | -2 (1)   | -1 (2)   | 5 (6)  |  |
| Last time needed medical attention had to wait 6 or more days for an appointment       | 2005   | 15 (3)               | 35 (6)   | 14 (2)   | 4* (1)   | 17 (4)  | 27 (5)  |  | 7 (2)                | 35 (6) | 10 (3)  | 1* (1)   | 15 (5)  | 14 (4)   |  | 8 (5)                                                                      | 0 (1)    | 4 (4)   | 3 (3)    | 2 (2)    | 13 (6) |  |
| Somewhat or very difficult to get care in the evenings, on weekends, or holidays       | 2005   | 44 (4.5)             | 44 (4.5) | 16* (1)  | 24 (2)   | 30 (3)  | 55 (6)  |  | 48 (5)               | 46 (4) | 14* (1) | 18 (2)   | 26 (3)  | 48 (5)   |  | -4 (1)                                                                     | -2 (2)   | 2 (3)   | 6 (5)    | 4 (4)    | 7 (6)  |  |

Note: Country ranking for each item indicated in parentheses.

\* Best country is significantly different from worst country at  $p \leq 0.05$ .

Source: Calculated by The Commonwealth Fund based on the Commonwealth Fund 2004 International Health Policy Survey, the Commonwealth Fund 2005 International Health Policy Survey of Sicker Adults, and the 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians.

In Figure 7, we compare patient reports on various measures of access to care for adults reporting their incomes as below average and those reporting their incomes as above average. The rankings are based on the percentage-point difference between the responses of below-average income respondents to above-average income respondents, with a higher score indicating greater access problems for those with below-average incomes. We used survey measures expected to be sensitive to financial barriers to care, such as not getting needed or recommended care—including dental care—because of costs and difficulty getting care when needed.

The U.S. ranks last on all the access to care measures and, as a result, ranks a clear sixth on all measures of equity. Americans with below-average incomes were much more likely than their counterparts in other countries to report not visiting a physician when sick and not getting a recommended test, treatment, or follow-up care, not filling a prescription, or not seeing a dentist when needed because of costs. On each of these indicators, more than two-fifths of lower-income adults in the U.S. said they went without needed care because of costs in the past year.

In addition, Americans with below-average incomes were significantly more likely than their counterparts in other countries to rate their doctor “fair” or “poor” and to have difficulty getting care in the evenings, on weekends, or on holidays. Below-average income respondents in Canada were more likely to report problems accessing timely care, including waiting two or more hours in the emergency department and waiting six days or more for a doctor’s appointment. Among the higher-income population, U.S. respondents often were more likely than their counterparts in other countries to report difficulty obtaining needed care because of costs.

Australia and the U.K. score highest on overall equity, with small differences between lower- and higher-income adults on most measures. Differences by income in Canada, Germany, and New Zealand most often emerged for services covered least well in universal national insurance programs, namely prescription drugs and dental care.

The U.S. is the only country surveyed without a universal health insurance system. On cost-related access measures, uninsured adults were more likely than insured adults to report difficulties getting needed care or going without care because of costs. However, differences by income persist even after taking insurance status into account. Compared with insured Americans with above-average incomes, insured Americans with below-average incomes were more likely to report going without care because of costs and difficulties seeing a specialist when needed.<sup>26</sup> Compared with their counterparts in the five

other countries, low-income Americans were significantly more likely to have access problems related to cost, even after controlling for health status and insurance.

## HEALTHY LIVES

The goal of a well-functioning health care system is to ensure that people lead healthy lives. To measure this dimension, the Commission's *National Scorecard* report includes outcome indicators such as mortality amenable to health care—that is, deaths that could have been prevented with timely and effective care; infant mortality; and healthy life expectancy.

Figure 8 summarizes country findings on each of these measures. Overall, Australia ranks highest, scoring first or second on all three indicators. It sets the standard with its scores on mortality amenable to health care and healthy lives expectancy at age 60. The U.S. ranks last overall and last on infant mortality and ties for last on healthy lives expectancy at age 60. One important caveat, however, is that data on mortality amenable to health care are for 1998, and substantial changes may have occurred since that time.

Figure 8. Healthy Lives

|                                                                            | AUS       | CAN         | GER         | NZ         | UK         | US         |
|----------------------------------------------------------------------------|-----------|-------------|-------------|------------|------------|------------|
| <b>Overall Ranking</b>                                                     | <b>1</b>  | <b>3</b>    | <b>2</b>    | <b>4.5</b> | <b>4.5</b> | <b>6</b>   |
| Mortality amenable to health care (deaths per 100,000) <sup>a</sup>        | 88<br>(1) | 92<br>(2)   | 106<br>(3)  | 109<br>(4) | 130<br>(6) | 115<br>(5) |
| Infant mortality <sup>b</sup>                                              | 5<br>(2)  | 5.4<br>(4)  | 4.2<br>(1)  | 5.6<br>(5) | 5.2<br>(3) | 7.0<br>(6) |
| Healthy lives expectancy at age 60 (average of women and men) <sup>c</sup> | 19<br>(1) | 18<br>(2.5) | 18<br>(2.5) | 17<br>(5)  | 17<br>(5)  | 17<br>(5)  |

Note: Country ranking for each item indicated in parentheses.

<sup>a</sup> 1998 World Health Organization (WHO) mortality data. For more details on sources see [Methodology Appendix](#).

<sup>b</sup> 2005 Organization for Economic Cooperation and Development (OECD) Health Data.

<sup>c</sup> 2003 WHO data.

## DISCUSSION

This examination provides evidence of deficiencies in terms of the quality of care in the U.S. health system, as reflected by patients' and physicians' experiences. Although the U.S. spends more on health care than any other country and has the highest rate of specialist physicians per capita, survey findings indicate that from the patients' perspective, the quality of American health care is less than optimal. The nation's substantial investment in health care is not yielding returns in terms of public satisfaction with the health care system.

Based on the indicators measured in the surveys, the U.S. rarely outperforms the other nations included; on most measures of the quality of care, it ranks last or second-to-last. The U.S. ranks first on right care, due in part to preventive care being a focus of

policy attention and reporting in the last decade. Among the six countries, the U.S. performed particularly poorly on measures of healthy lives, access, efficiency, and equity.

It is difficult to disentangle the effects of health insurance coverage from the quality of care experiences reported by U.S. patients. Comprehensiveness of insurance and stability of coverage are likely to play a role in patients' access to care and interactions with physicians. We found that insured Americans and higher-income Americans were more likely than their counterparts in other countries to report problems such as not getting recommended tests, treatments, or prescription drugs.<sup>27</sup> This is undoubtedly a reflection of the lack of comprehensive health insurance coverage and the high out-of-pocket costs for care in the U.S., even among the insured and those with above-average incomes. Fragmented insurance coverage and insurance instability undermine efforts in the U.S. to improve care coordination, including the sharing of information among providers. Patients in other countries, in addition, are more likely to have a regular physician and longtime continuity with the same physician.<sup>28</sup>

Any international comparison of health care is subject to inherent data weaknesses, such as the absence of medical record clinical information or timely health outcomes data. The measures, methods, and data used in this analysis—like those used in the WHO report—are far from perfect. Different measures, moreover, are given equal weight in the rankings and are not weighted based on independent evidence of what patients value most highly. That is, patients may, in fact, value a measure of right care—whether they received a Pap test or hypertensive screening if warranted—over a measure of timeliness. However, for the purposes of this report, all measures are weighted equally.

One definition of “quality” care is health services that meet or exceed consumer expectations. Even if the expectations of U.S. patients were higher than patients in other countries, the U.S. health care system should be held to the standard of meeting its consumers' needs. Thus, while patient perspectives are only one lens through which to view health systems, the overall conclusion remains: the U.S. health care system is not the “fairest of them all,” at least from the viewpoint of those who use it to stay healthy, get better, or manage their chronic illnesses, or who are vulnerable because of low income and poor health. Patients' perceptions' on issues of financial accessibility are mirrored, too, by physicians' views.

Why do the American public and physicians consistently give low ratings to their health care system? What can be done to improve this situation? Americans report that they face a number of barriers in getting high-quality care. Inadequacies of insurance coverage

certainly contribute to these problems and to the inequities between insured and uninsured patients and between high-income and low-income patients reported here. The U.S. is the only country among the six—indeed, among all major industrialized countries—that does not have a universal system of health coverage. Patients in the U.S. also pay a much higher percentage of health care expenses out-of-pocket than do patients in the other countries and are less likely to have a regular source of care and to have more difficulties getting care in a timely manner.<sup>29</sup>

Improving on patient- and physician-reported dimensions of quality in the U.S. will require a sustained effort to improve coordination of care and promote the adoption of systems that support better transfer of information across multiple providers of care and assist clinicians in providing safe and effective care. The 2006 International Survey of Primary Care Physicians found that the U.S. and Canada lag far behind other industrialized countries surveyed in information capacity. The majority of primary care doctors in Australia, New Zealand, and the U.K. use EMRs, as well as electronic prescribing and electronic access to test results. While the U.S., Canada—and, to a lesser extent, Germany—lag behind these countries in use of IT, the U.S. is the only country without a national plan to expand the use of EMRs. To advance past several barriers—including high start-up costs and the need for interoperability—expanding access to IT must be set as a national priority along with the necessary incentives to make it happen.

Other countries' experiences suggest models for the U.S. to explore in seeking to improve its health system performance. Australia ranks high on health outcomes and equity; Germany on healthy lives and access; New Zealand on quality; and the U.K. on the measures of safe care, efficiency, and equity. Rather than focus solely on best practices within its borders, the U.S. would benefit from analysis of promising innovations in other countries and greater investment in cross-national research.

In addition to looking at models of care from other countries, we need to find better ways to diffuse models that have been shown to be effective locally, or within the context of demonstration projects. For example, there is evidence that an advanced access approach to scheduling office visits can enable patients to make appointments—even walk-in or same-day appointments—that match their needs.<sup>30</sup> But this practice has not been widely implemented. Wennberg and colleagues have developed a shared decision-making process that has been proven to raise patients' levels of satisfaction with the communication process, which the surveys identify as a major source of problems.<sup>31</sup> In this case, the benefits apply to many dimensions of quality, including patient-centeredness,

effectiveness, and safety. Yet, such approaches and tools are not widely used by physicians and their patients, pointing to the need for more effective diffusion strategies.

These results indicate a consistent relationship between how a country performs in terms of equity and how patients then rate performance on other dimensions of quality: the lower the performance score for equity, the lower the performance on other measures. This suggests that, when a country fails to meet the needs of the most vulnerable, it will be judged most harshly by its citizens. Rather than disregarding its performance on equity as a separate and lesser concern, the U.S. should devote far greater attention to seeing that the health system works well for all Americans. These findings raise fundamental questions about the current trend in the U.S. to increase patients' out-of-pocket costs, and about the lack of action on the growing numbers of uninsured and underinsured. The U.S. needs to make a major commitment to improving health insurance coverage and quality of care. If it fails to act, not only will the U.S. standing among the world's health systems continue to erode, but there will be a predictable rise in public dissatisfaction and significant economic and human costs.

## METHODOLOGY APPENDIX

Data come primarily from three surveys: the Commonwealth Fund 2004 International Health Policy Survey, which explores primary care experiences among nationally representative samples of adults; the 2005 International Health Policy Survey of Sicker Adults, which focuses on the experiences of adults with a high incidence of chronic disease and recent, intensive use of the medical care system; and the 2006 International Health Policy Survey of Primary Care Physicians, which highlights the experiences and views of primary care physicians regarding their practices.

The 2004 survey was conducted between March 29 and May 17 by telephone among a random representative sample of adults ages 18 and older in Australia, Canada, New Zealand, the United Kingdom, and the United States. Except for minor wording changes to reflect terminology differences, the same instrument was used in each country. The survey was conducted in English, with a French option in Canada and a Spanish option in the U.S. The final sample included 1,400 in Australia, 1,410 in Canada, 1,400 in New Zealand, 3,061 in the U.K., and 1,401 in the U.S. Data are weighted in each country to adjust for variations between the sample demographics and known population parameters. The margin of sampling error is approximately plus or minus three percentage points for differences between countries and plus or minus two percentage points for country averages at the 95 percent confidence level.

The 2005 survey screened random samples of adults ages 18 and older in order to identify those who met at least one of four criteria: rated their health status as fair or poor; reported having a serious illness, injury, or disability that required intensive medical care in the previous two years; reported that in the past two years they had undergone major surgery; or reported that they had been hospitalized for something other than a normal delivery. The survey was conducted by telephone between March 17 and May 9 in Australia, Canada, New Zealand, the U.K., and the U.S., and between May 9 and June 12 in Germany. The survey was conducted in German in Germany and in English in the five other countries, with the option of French in Canada and Spanish in the U.S. The final sample included 702 in Australia, 751 in Canada, 704 in New Zealand, 1,503 in Germany, 1,770 in the U.K., and 1,527 in the U.S.

The 2006 survey was conducted between February 24 and August 14 and included a random sample of primary care physicians in Australia, Canada, New Zealand, the Netherlands, the U.K., and the U.S. Data from the Netherlands are not shown or discussed because comparative patient-reported data are not available from previous years.

Since primary care physicians in many countries treat both adults and children (e.g., Australia, New Zealand, and the U.K.), a proportional number of pediatricians was also included in countries where primary care physicians exclusively treat adults (Canada, Germany, and the U.S.) to make the samples across the countries equivalent. Across the countries, 6,088 physicians completed a survey, including 1,003 in Australia, 578 in Canada, 1,006 in Germany, 503 in New Zealand, 1,063 in the U.K., and 1,004 in the U.S. In Australia, Canada, New Zealand, and the U.S., the survey was completed by mail or fax. In the U.K., interviews were conducted by telephone (primarily) and mail. In Germany, interviews were conducted by telephone alone.

Figure 1 is based on OECD data on health expenditures published in 2005 and 2006 databases. The three indicators in Figure 8 (mortality amenable to health care, infant mortality, and health lives expectancy at age 60) are reported in the Commission's *National Scorecard* report.<sup>32</sup> Data for the mortality amenable to health care indicator were first published by researchers in *BMJ* and are calculated based on 1998 mortality data from the World Health Organization.<sup>33</sup> The infant mortality data come from the OECD Health Data 2005 database. Data for healthy lives expectancy at age 60 come from the World Health Organization's 2003 *World Health Report* and are averages of the life expectancies of men and women.<sup>34</sup> The national health expenditures data in Figure 5 come from the Commission's *National Scorecard* report.

After the survey data were collected, items from each survey were grouped into one of the following five dimensions of performance used in the *National Scorecard*: quality, access, efficiency, equity, and healthy lives. Because of the limitations of the patient surveys, some dimensions of quality were measured with a greater number of items, and some dimensions of quality were measured more robustly.

After grouping survey items under one of these five domains of quality, we ranked each country's score on individual items from highest to lowest (where 1 equals the highest score). Next, we calculated a summary ranking for each domain of quality by averaging the individual ranked scores within each country and ranking these averages from highest to lowest score. For ties in means, the tied observations were assigned the average of the ranks that would be assigned if there were no ties. We ranked each equity indicator based on the percentage-point difference between above-average income respondents and below-average income respondents, with lower scores ranking higher.

Our analysis also includes chi-square tests of significance for the highest and lowest comparisons. Figures indicate where differences are significant at the .05 level between the

highest- and lowest-ranked countries. We also looked at other methodologies used to rank countries, including an index used by the United Nations Human Development Index and the Fraser Institute Index of Human Progress to rank countries' performances:

$$\text{Index}_{\text{Max}} = W = [(\text{country value} - \text{maximum value}) / (\text{minimum value} - \text{maximum value})] \times 100.$$

We found that the simple ranking method used in this report and the above method produced comparable results across these six countries and indicators.

## NOTES

<sup>1</sup> C. Schoen, R. Osborn, P. T. Huynh, M. M. Doty, J. Peugh, and K. Zapert, “[On The Front Lines of Care: Primary Care Doctors’ Office Systems, Experiences, and Views in Seven Countries](#),” *Health Affairs* Web Exclusive (Nov. 2, 2006):w555–w571; C. Schoen, R. Osborn, P. T. Huynh, M. M. Doty, K. Davis, K. Zapert, and J. Peugh, “[Primary Care and Health System Performance: Adults’ Experiences in Five Countries](#),” *Health Affairs* Web Exclusive (Oct. 28, 2004):w4–487–w4–503; C. Schoen, R. Osborn, P. T. Huynh, M. M. Doty, K. Zapert, J. Peugh, and K. Davis, “[Taking the Pulse of Health Care Systems: Experiences of Patients with Health Problems in Six Countries](#),” *Health Affairs* Web Exclusive (Nov. 3, 2005):w5–509–w5–525; K. Davis, C. Schoen, S. C. Schoenbaum, A. J. Audet, M. M. Doty, A. L. Holmgren, and J. L. Kriss, *Mirror, Mirror on the Wall: An Update on the Quality of American Health Care Through the Patient’s Lens* (New York: The Commonwealth Fund, Apr. 2006); World Health Organization, *World Health Report, 2000* (Geneva, Switzerland: WHO, 2000).

<sup>2</sup> C. Schoen, K. Davis, S. K. H. How, and S. C. Schoenbaum, “[U.S. Health System Performance: A National Scorecard](#),” *Health Affairs* Web Exclusive (Sept. 20, 2006):w457–w475.

<sup>3</sup> K. Davis, C. Schoen, S. C. Schoenbaum, A.-M. J. Audet, M. M. Doty, and K. Tenney, *Mirror, Mirror on the Wall: Looking at the Quality of American Health Care through the Patient’s Lens* (New York: The Commonwealth Fund, Jan. 2004); Davis, Schoen, Schoenbaum et al., *Mirror, Mirror*, 2006.

<sup>4</sup> In each of the past eight years, The Commonwealth Fund has performed a survey in these five countries, and last year the Fund added Germany to the survey. In each year the ministers of health have met to review the findings.

<sup>5</sup> K. Davis, “[Uninsured in America: Problems and Possible Solutions](#),” *BMJ*, Feb. 17, 2007 334(7589):346–48.

<sup>6</sup> Schoen, Davis, How et al., “U.S. Health System Performance,” 2006.

<sup>7</sup> Ibid.

<sup>8</sup> Davis, Schoen, Schoenbaum et al., *Mirror, Mirror*, 2004; Davis, Schoen, Schoenbaum et al., *Mirror, Mirror*, 2006.

<sup>9</sup> WHO, *World Health Report, 2000*.

<sup>10</sup> R. J. Blendon, M. Kim, and J. M. Benson, “The Public Versus the World Health Organization on Health System Performance,” *Health Affairs*, May/June 2001 20(3):10–20; C. J. L. Murray, K. Kawabata, and N. Valentine, “People’s Experience Versus People’s Expectations,” *Health Affairs*, May/June 2001 20(3):21–24; J. Mulligan, J. Appleby, and A. Harrison, “Measuring the Performance of Health Systems,” *BMJ*, July 22, 2000 321(7255):191–92; V. Navarro, “Assessment of the World Health Report 2000,” *Lancet*, Nov. 4, 2000 356(9241):1598–601; C. Almeida, P. Braveman, M. R. Gold et al., “Methodological Concerns and Recommendations on Policy Consequences of the World Health Report 2000,” *Lancet*, May 26, 2001 357(9269):1692–97; D. B. Evans, A. Tandon, C. J. Murray et al., “Comparative Efficiency of National Health Systems: Cross National Econometric Analysis,” *BMJ*, Aug. 11, 2001 323(7308):307–10; P. Braveman, B. Starfield, and H. J. Geiger, “World Health Report 2000: How It Removes Equity from the Agenda for Public Health Monitoring and Policy,” *BMJ*, Sept. 22, 2001 323(7314):678–81.

<sup>11</sup> Commonwealth Fund 1998 International Health Policy Survey, Commonwealth Fund 1999 International Health Policy Survey of the Elderly, Commonwealth Fund 2000 International Health Policy Survey of Physicians, Commonwealth Fund 2001 International Health Policy Survey, Commonwealth Fund 2002 International Health Policy Survey of Adults with Health Problems, Commonwealth Fund 2004 International Health Policy Survey of Adults’ Experiences with Primary Care.

<sup>12</sup> Commonwealth Fund 2005 International Health Policy Survey of Sicker Adults. Funding for Germany was provided by the German Institute for Quality and Economic Efficiency in Health Care. Commonwealth Fund 2006 International Health Policy Survey of Primary Care Doctors.

<sup>13</sup> Schoen, Davis, How et al., “U.S. Health System Performance,” 2006.

<sup>14</sup> The Commonwealth Fund Commission on a High Performance Health System, [\*Why Not the Best? Results from a National Scorecard on U.S. Health System Performance\*](#) (New York: The Commonwealth Fund, Sept. 2006).

<sup>15</sup> Data from the Netherlands are not shown.

<sup>16</sup> The 2005 survey identified “sicker” adults using screening questions. For a description of the methodology, see Schoen, Osborn, Huynh et al., “Taking the Pulse,” 2005.

<sup>17</sup> Schoen, Osborn, Huynh et al., “Primary Care in Five Countries,” 2004; Schoen, Osborn, Huynh et al., “Taking the Pulse,” 2005; Schoen, Osborn, Huynh et al., “On the Front Lines of Care,” 2006.

<sup>18</sup> For more details, see C. Schoen and S. K. H. How, [\*National Scorecard on U.S. Health System Performance: Chartpack Technical Appendix\*](#) (New York: The Commonwealth Fund, Sept. 2006).

<sup>19</sup> Commission, *Why Not the Best?* 2006, p. 16.

<sup>20</sup> Institute of Medicine, *Crossing the Quality Chasm: A New Health System for the 21st Century* (Washington, D.C.: National Academies Press, 2001).

<sup>21</sup> Two U.S. surveys have used similar questions to measure patient safety: R. J. Blendon, C. M. DesRoches, M. Brodie et al., “Views of Practicing Physicians and the Public on Medical Errors,” *New England Journal of Medicine*, Dec. 12, 2002 347(24):1933–40; and K. Davis, S. C. Schoenbaum, K. S. Collins, K. Tenney, D. L. Hughes, and A.-M. J. Audet, [\*Room for Improvement: Patients Report on the Quality of Their Health Care\*](#) (New York: The Commonwealth Fund, Apr. 2002).

<sup>22</sup> Commission, *Why Not the Best?* 2006, p. 18.

<sup>23</sup> Ibid., p. 20.

<sup>24</sup> Ibid., p. 23.

<sup>25</sup> IOM, *Crossing the Quality Chasm*, 2001.

<sup>26</sup> P. T. Huynh, C. Schoen, R. Osborn, and A. L. Holmgren, [\*The U.S. Health Care Divide: Disparities in Primary Care Experiences by Income\*](#) (New York: The Commonwealth Fund, Apr. 2006).

<sup>27</sup> Ibid.

<sup>28</sup> Schoen, Osborn, Huynh et al., “Primary Care in Five Countries,” 2004.

<sup>29</sup> Huynh, Schoen, Osborn et al., *U.S. Health Care Divide*, 2006.

<sup>30</sup> M. Murray and D. M. Berwick, “Advanced Access: Reducing Waiting and Delays in Primary Care,” *Journal of the American Medical Association*, Feb. 26, 2003 289(8):1035–40.

<sup>31</sup> J. E. Wennberg, “Shared Decision-Making and the Future of Managed Care,” *Disease Management and Clinical Outcomes*, Jan. 1997 1(1):15–16.

<sup>32</sup> C. Schoen and S. K. H. How, [\*National Scorecard on U.S. Health System Performance: Technical Report\*](#) (New York: The Commonwealth Fund, Sept. 2006).

<sup>33</sup> E. Nolte and M. McKee, “Measuring the Health of Nations: Analysis of Mortality Amenable to Health Care,” *BMJ*, Nov. 15, 2003 327(7424):1129–33.

<sup>34</sup> World Health Organization, *The World Health Report 2003: Shaping the Future* (Geneva, Switzerland: WHO, 2003), Statistical Annex Table 4, [http://www.who.int/whr/2003/en/whr03\\_en.pdf](http://www.who.int/whr/2003/en/whr03_en.pdf).

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