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Toward Higher-Performance Health Systems: Adults' Health Care Experiences In Seven Countries, 2007

Actual experiences with health care systems bring to light, and to life, the systemwide problems in these countries.

by Cathy Schoen, Robin Osborn, Michelle M. Doty, Meghan Bishop, Jordon Peugh, and Nandita Murukutla

ABSTRACT: This 2007 survey compares adults' health care experiences in Australia, Canada, Germany, the Netherlands, New Zealand, the United Kingdom, and the United States. In all countries, the study finds that having a "medical home" that is accessible and helps coordinate care is associated with significantly more positive experiences. There were wide country differences in access, after-hours care, and coordination but also areas of shared concern. Patient-reported errors were high for those seeing multiple doctors or having multiple chronic illnesses. The United States stands out for cost-related access barriers and less-efficient care. [*Health Affairs* 26, no. 6 (2007): w717–w734 (published online 31 October 2007; 10.1377/hlthaff.26.6.w717)]

ALL MAJOR INDUSTRIALIZED COUNTRIES are confronting the challenge of providing their populations with accessible, high-quality, safe, and efficient health care. As initiatives seek to improve performance, patients' views and experiences offer insights into a health care system's points of stress and opportunities to improve. Thus, with a focus on access, primary care, coordination, and safety, the 2007 Commonwealth Fund International Health Policy Survey interviewed adults in seven countries: Australia, Canada, Germany, the Netherlands, New Zealand, the United Kingdom, and the United States.

Cross-national and regional studies within the United States find that accessible, comprehensive, and well-integrated primary care is associated with better outcomes and lower costs.[1] Furthermore, recent U.S.-based studies indicate that

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adults with an accessible source of primary care are more likely to receive preventive care, are less likely to encounter coordination problems, and experience fewer disparities in care, compared with those lacking such a source of care.[2] Given such evidence, the development of primary care systems that serve as "medical homes" has emerged as a conceptual approach to improving U.S. system performance.[3] In the analysis of survey responses, we used adults' descriptions of whether they have an accessible primary care source that plays a coordinating role, to examine the hypothesis that having a "medical home" is important.

Country Context

The seven countries in this survey represent diverse insurance systems and vary in the extent to which primary care plays a formal role in delivery systems. Characteristics of health systems from prior Commonwealth Fund surveys and other sources are shown in Exhibit 1.[4] As illustrated, the United States spends by far the highest share of national income on health care yet is the only country that leaves a high percentage of the population uninsured or poorly protected in the event of illness. An estimated one-third of U.S. adults are either uninsured during the year or underinsured.[5] Among the countries, the United States has the smallest share of general practice (GP)/family practice (FP) physicians and relies extensively on internal medicine and pediatrics for primary care. However, even in the other coun-

EXHIBIT 1
Overview: Health Spending And Insurance Systems In Seven Countries, 2007

	AUS	CAN	GER	NET	NZ	UK	US
National health spending							
Per capita (U.S. $PPP)[a]	$3,128	$3,326	$3,287	$3,094	$2,343	$2,724	$6,697
Percent of GDP[a]	9.5%	9.8%	10.7%	9.2%	9.0%	8.3%	16.0%
Primary care role, information capacity							
Patients required to register	No	No	No	Yes	Yes	Yes	No
Referral required for specialist[b]	Yes	No	No	Yes	Yes	Yes	No
Percent of primary care practices with[c]							
Any financial incentive for quality	72%	41%	43%	58%	79%	95%	30%
Electronic medical records	79%	23%	42%	98%	92%	89%	28%
Insurance							
Percent uninsured	0%	0%	<1%	<2%	0%	0%	16%[d]
Comprehensive national minimum benefit package	Yes	Yes	Yes	Yes	Yes	Yes	No
Prescription drugs: core benefit	Yes	No	Yes	Yes	Yes	Yes	No
Primary care cost sharing for visit	Yes[e]	No	Yes	No	Yes	No	Yes

SOURCES: See below.

NOTES: PPP is purchasing power parity. GDP is gross domestic product.

[a] All countries but the United States: data for 2005 and 2004, from Organization for Economic Cooperation and Development, *OECD Health Data 2007* (Paris: OECD, July 2007). United States: data for 2005, from A. Caitlin et al., "National Health Spending In 2005: The Slowdown Continues," *Health Affairs* 26, no. 1 (2007): 142–153.

[b] Canada does not require but has incentive to discourage self-referral.

[c] 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians.

[d] March 2007 census; uninsured at a point in time; including those with any time uninsured increases to 25 percent.

[e] Majority of general practices "bulk bill" and eliminate patient cost sharing.

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tries, the percentage of primary care physicians has been declining.[6]

Unlike Germany and the United States, where patients can generally self-refer to specialized care, in the other countries primary care practices serve as gatekeepers, with referrals required for full coverage. In the United Kingdom, the Netherlands, and New Zealand, adults register with primary care clinics/GP practices. As profiled in the 2006 survey of primary care physicians, the countries also vary markedly in providing incentives to support improved primary care performance and investing in information systems, with Canadian and U.S. practices the least likely to use electronic medical records.[7]

Among the six countries with universal insurance benefits, the United Kingdom provides the most comprehensive coverage, with few or no patient costs. The Netherlands also provides comprehensive coverage for primary care, although recent insurance changes give adults the option of plans with deductibles and multiple cost-sharing designs.[8] Canada covers physician care in full but has cost sharing and gaps in prescription coverage; most provinces provide coverage for the elderly and low income. National insurance benefits in Australia and New Zealand include cost sharing for physician visits, medications, and other care, with exceptions for some low-income patients.[9]

The 2007 survey findings indicate that insurance design, the organization of care, and having a relationship with a primary care source with attributes of a medical home make a difference for patients. Country differences, as well as striking similarities, point to opportunities to improve and learn from international efforts to achieve more integrated, efficient, patient-centered care.

Study Design And Methods

■ **Sample and study design.** The survey consisted of interviews with representative samples of adults age eighteen and older in seven countries. Interviews were conducted with approximately 1,000 adults in Australia and New Zealand; 1,500 in Germany, the Netherlands, and the United Kingdom; 2,500 in the United States; and 3,000 in Canada. The Commonwealth Fund funded the core study, partnered with the Health Council of Canada to expand the Canadian sample, and cofunded fieldwork in the Netherlands with the Dutch Ministry for Health, Welfare, and Sport and the Center for Quality of Care Research (WOK), Radboud University Nijmegen. The German Institute for Quality and Economic Efficiency in Health Care funded the German sample.

Interviews were conducted by telephone between 6 March and 7 May 2007 by Harris Interactive and country affiliates; they averaged seventeen minutes.[10] Researchers at the Commonwealth Fund and Harris Interactive designed the questionnaire with advice of experts in each country. It builds on 2004 and 2005 patient surveys in all but the Netherlands.[11] The survey was conducted in German (Germany), Dutch (Netherlands), and English in the five other countries, with an option for French in Canada and Spanish in the United States.[12]

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The analysis weighted final samples to reflect the distribution of the adult population.[13] The margin of sample error for country averages is approximately ±2 percent for the United States and Canada and ±3 percent for the other five countries at the 95 percent confidence level. Exhibits indicate significant differences ($p < 0.05$ or better) between countries—paired comparisons—or within countries.

■ **Primary care "medical home."** We used positive responses to four questions to create a composite variable to provide a working definition of the "medical home" concept: (1) the adult has a regular doctor or place of care; (2) doctor(s)/staff always or often know important information about the patient's medical history; (3) the place is easy to contact by phone during regular office hours; and (4) the doctor/staff at the source of care always or often help coordinate care received from other doctors or sources of care. Adults with a negative response to any question were classified as without a medical home. The composite variable represents adults who have a primary care source that knows their medical history, is accessible, and helps coordinate care. In the analysis, we compared experiences within each country for those with or without such a source of care, denoted as "medical home" in the exhibits. The exhibits present the bivariate findings. In multivariate analyses, findings of significance generally held after age, health, income, and insurance status were controlled for.[14]

Survey Findings

■ **System views, costs, waits, and complexity.** The survey asked adults about their overall health system views, confidence, access, cost burdens, and perceptions of waste and complexity. Repeating the pattern observed since 1998, U.S. adults held the most negative views and were the most likely to report affordability concerns (Exhibit 2). Joining the survey for the first time, the Dutch public stands out for its positive views, including high levels of confidence in the quality and accessibility of care and low levels of cost-related concerns. In contrast to the United States, public views in Canada and New Zealand have grown steadily more positive in the past decade and are now comparable to views in Australia and the United Kingdom.[15] German adults rank just behind U.S. adults in negative system views. New Zealand and U.K. adults expressed the least confidence that they will receive the most effective medications or medical technology if they become ill.

There were marked differences across countries in waiting times among those needing elective surgery. German and U.S. adults reported the most rapid access. and Canadian and British adults, the longest waits. In most countries, waits of a year or more were rare; in Canada and the United Kingdom, though, 8 percent reported waiting that long, and 15 percent reported waiting six months or more for elective surgery.

Although patients in the United States reported rapid access to elective surgery, they were the most likely to have gone without care because of cost and to

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EXHIBIT 2
Health System Views, Confidence, And Cost Among Adults In Seven Countries, 2007

	AUS	CAN	GER	NET	NZ	UK	US
Unweighted N	1,009	3,003	1,407	1,557	1,000	1,434	2,500
Overall health system views							
Only minor changes needed, system works well	24%[c,d,g]	26%[c,d,g]	20%[d,e,f,g]	42%[e,f,g]	26%[g]	26%[g]	16%
Fundamental changes needed	55[b,d,g]	60[c,d,e,g]	51[e,f]	49[e,f]	56[g]	57[g]	48
Rebuild completely	18[b,c,d,g]	12[c,d,e,f,g]	27[d,e,f,g]	9[g]	17[g]	15[g]	34
Confident that you will							
Get high-quality, safe care							
Very confident	34[b,c,d,f]	28[c,d,g]	24[d,e,f,g]	59[e,f,g]	30[g]	28[g]	35
Somewhat confident	46[b,d]	52[d,f,g]	50[d,f,g]	35[e,f,g]	48	44	44
Not very/not at all confident	20[c,d,f]	19[c,d,f]	26[d,e,g]	5[e,f,g]	22[f]	27[g]	21
Receive the most effective drugs							
Very confident	36[c,d,e,f]	32[c,d,e,f]	23[d,g]	45[e,f,g]	20[f,g]	25[g]	33
Somewhat confident	47	50[d,f,g]	49[g]	45	50[f,g]	45	44
Not very/not at all confident	15[c,d,e,f,g]	16[c,d,e,f,g]	26[d,g]	9[e,f,g]	27[g]	26[g]	21
Receive the best medical technology							
Very confident	39[b,c,d,e,f]	28[c,d,g]	24[d,g]	46[e,f,g]	25[g]	27[g]	38
Somewhat confident	45[b,e]	53[c,d,f,g]	46[e]	47	52[f,g]	46	43
Not very/not at all confident	15[c,d,e,f]	18[c,d,e,f]	27[d,e,f,g]	5[e,f,g]	21	23[g]	18
Elective surgery in past 2 years	16[b,f]	11[f,g]	13[f,g]	13[f]	14[f]	8[g]	16
Wait for surgery							
<1 month	59[b,c]	32[c,d,e,g]	72[d,e,f,g]	47[g]	55[f]	40[g]	62
>6 months	9[c,g]	14[c,d,e,g]	3[f]	2[f]	4[f]	15[g]	4
Access problems because of cost during past year							
Did not visit doctor when sick	13[b,d,e,f,g]	4[c,d,e,f,g]	12[d,e,f,g]	1[e,g]	19[f,g]	2[g]	25
Skipped medical test, treatment, or follow-up recommended by doctor	17[b,c,d,e,f,g]	5[c,d,e,f,g]	8[d,e,f,g]	2[e,g]	13[f,g]	3[g]	23
Did not fill Rx or skipped doses	13[b,d,f,g]	8[c,d,f,g]	11[d,f,g]	2[e,f,g]	10[f,g]	5[g]	23
Yes to at least one of the above	26[b,c,d,f,g]	12[c,d,e,f,g]	21[d,f,g]	5[e,f,g]	25[f,g]	8[g]	37
Out-of-pocket expenses for medical bills in the past year, in U.S. $ equivalent							
None	13[b,c,d,f]	21[c,d,e,f,g]	9[d,f]	38[e,f,g]	12[f]	52[g]	10
$1–$100	11[b,c,d,e]	17[f,g]	17[f,g]	15[g]	17[f,g]	12	9
More than $1,000	19[b,c,d,e,f,g]	12[d,f,g]	10[d,f,g]	5[e,g]	10[f,g]	4[g]	30
Had serious problems paying/unable to pay medical bills in the past year	8[b,c,d,f,g]	4[e,f,g]	4[e,f,g]	5[e,f,g]	8[f,g]	1[g]	19
Spent time on paperwork or disputes related to medical bills or insurance	10[c,d,f,g]	12[c,d,f,g]	14[d,f,g]	31[e,f,g]	13[f,g]	3[g]	24
In past 2 years, doctors recommended treatment you thought had little or no benefit	17[b,d,f]	12[c,e,g]	20[d,e,f]	13[g]	15[f,g]	10[g]	20
When you need care, how important is it that you have one practice/clinic where doctors and nurses know you, provide and coordinate the care you need?							
Very important	80[d]	78[d,f]	78[f]	74[f,g]	78[f]	84[g]	80
Somewhat important	15[d]	17[d,f]	18[f]	20[e,f,g]	16	12[g]	15

SOURCE: Commonwealth Fund International Health Policy Survey, 2007.

NOTES: Reading from left to right starting with Australia, the letter indicates significant differences with countries to the right ($p < 0.05$), as indicated.

[b] Different from Canada.

[c] Different from Germany.

[d] Different from the Netherlands.

[e] Different from New Zealand.

[f] Different from U.K.

[g] Different from U.S.

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have high out-of-pocket costs. One-fifth of U.S. adults reported serious problems paying medical bills in the past year—more than double the rates in the next-highest countries. These high rates reflected cost sharing as well as high rates of uninsurance. Thirty percent of the insured and 34 percent of the uninsured spent more than $1,000 out of pocket in the past year.

With comprehensive coverage, Dutch and British adults reported the lowest out-of-pocket costs and access concerns related to cost. Except for medications, Canadians' cost-related concerns were also low. Concerns in Australia, New Zealand, and Germany were midway between the extremes. Notably, New Zealand's cost-related access rates have improved since 2004, likely reflecting policy initiatives to reduce cost barriers.[16]

Asked about perceptions of care with little or no value and insurance billing complexity, U.S. and German adults were the most likely to perceive waste (20 percent) and U.S. and Dutch adults the most likely to spend time on paperwork or disputes. The high Dutch rates likely reflect the recent shift in 2006 to more complex cost sharing and insurance benefit design choices.

In the United States, Germany, and the Netherlands, where adults can switch their basic insurance coverage, we asked about changing plans in the past three years. German rates were relatively stable, with only 10 percent switching. In the Netherlands, at a time with new choices, 25 percent switched in the past three years. U.S. adults reported the most frequent changes: 32 percent had switched, and 14 percent had done so more than once (data not shown).

Despite varying primary care roles across countries, the surveys found broad agreement on the value of having a "medical home." Three-quarters or more of adults viewed having a source of care that knows them and helps coordinate care as very important.

■ **Primary care accessibility and relationship.** The majority of adults in all seven countries—and 100 percent in the Netherlands—reported that they had a regular doctor at the time of the survey (Exhibit 3). At 80 percent, U.S. rates were significantly lower than rates in the other six countries.

Responses varied widely regarding whether these primary care sources offer office hours outside of the nine-to-five work week and enable easy contact by phone. Half or more of German and Dutch patients said that their regular primary care practices have early morning hours—double rates in the other countries. Few Dutch practices offer office hours after 6 p.m., as this is the time when the Netherlands' after-hours cooperatives take over.[17] Australians were the most likely to report weekend hours. Canada, the United Kingdom, and the United States stand out with more than one in three saying that their doctor is not available outside of the nine-to-five workday. Australian and New Zealand adults were the most likely (more than half) and Germans the least likely (one-fifth) to say that it is easy to get through to their primary care doctor by telephone during practice hours.

Asked whether their usual primary care doctor/place knows their medical his-

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EXHIBIT 3
Patients' Reports Of Primary Care Relationship And Accessibility In Seven Countries, 2007

	AUS	CAN	GER	NET	NZ	UK	US
Do you have a doctor or GP you usually see?							
Yes	88%[b,c,d,g]	84%[c,d,e,f,g]	92%[d,e,f,g]	100%[e,f,g]	89%[g]	89%[g]	80%
No doctor but usual place	8[c,d]	7[c,d,g]	3[d,e,f,g]	0	6[c,d,g]	8	10
No usual place or doctor	4[b,d,g]	9[c,d,e,f]	6[d,f,g]	0	5[f,g]	3[g]	10
If you have doctor or regular place: Does this practice have							
Early morning hours (before 8:30 a.m.) (yes)	25[b,c,d,g]	19[c,d,g]	53[d,e,f,g]	63[e,f,g]	21[g]	21[g]	33
Evening hours (after 6 p.m.) (yes)	37[b,d,e,f,g]	31[c,d,e,f,g]	39[d,e,f,g]	5[e,f,g]	26	23	25
Some weekend hours (yes)	58[b,c,d,e,f,g]	21[c,d,e,f,g]	15[d,e,f,g]	8[e,g]	34[f,g]	11[g]	28
No to all	21[b,e,f,g]	40[c,d,e,g]	20[e,f,g]	22[e,f,g]	31[f]	39[g]	35
How easy or difficult is it to contact doctor by phone during regular practice hours?							
Very easy	60[b,c,d,f,g]	44[c,d,e,g]	22[d,e,f,g]	27[e,f,g]	62[f,g]	44	46
Somewhat easy	26	34	44	48	26	36	35
Somewhat/very difficult	13[b,c,d,f,g]	22[c,d,e,f,g]	34[d,e,f,g]	23[e,f,g]	11[f,g]	19	19
How often does your doctor or a doctor at the place you usually go to know important information about your medical history?							
Always	69[c,f,g]	67[c,d,e,f,g]	78[d,e,f,g]	71[f,g]	69[f,g]	63	62
Often	16	17	15	19	18	16	20
Sometimes/rarely or never	13[c,d,g]	14[c,d,e]	6[e,f,g]	7[e,f,g]	11[f,g]	16	17
How often does your regular doctor or someone in your doctor's practice help you coordinate care from other doctors/places?							
Always	51[b,c,d,f,g]	47[d,e,f]	45[d,e,f,g]	31[e,g]	49[f,g]	38[g]	47
Often	19	20	22	24	21	20	22
Sometimes/rarely or never	26[b,d,f]	30[c,d,e]	26[d,f]	35[e,f,g]	26[f]	31	30
"Medical home": Has a regular doctor or place that is very/somewhat easy to contact by phone, always/often knows medical history, and always/often helps coordinate care (yes)	59[b,c,d,f,g]	48[c,e,g]	45[e,g]	47[e,g]	61[f,g]	47[g]	50

SOURCE: Commonwealth Fund International Health Policy Survey, 2007.

NOTES: Reading from left to right starting with Australia, the letter indicates significant differences with countries to the right ($p < 0.05$), as indicated. For unweighted N, see Exhibit 2.

[b] Different from Canada.

[c] Different from Germany.

[d] Different from the Netherlands.

[e] Different from New Zealand.

[f] Different from U.K.

[g] Different from U.S.

tory, a significant majority of adults in all countries said yes. However, at most half of adults in any country—Australia and New Zealand had the highest rates—said that their doctor or someone at their usual place of care helps coordinate care.

Based on responses about having a regular source of care with easy contact by phone, knowledge of medical history, and care coordination, the findings indicate that only about 50–60 percent of adults across countries have a primary care source with key attributes of a medical home. In the United States, having such a relationship depended on insurance and income: Insured and higher-income pa-

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tients were significantly more likely than uninsured and lower-income patients to have a medical home (53 percent of the insured compared with 26 percent of the uninsured for adults under age sixty-five; 58 percent above-average compared with 42 percent below-average income for all ages). In the other six countries, differences by income were significant only in Canada (52 percent above-average compared with 44 percent below-average income).[18]

■ **Primary care access experiences and emergency room use.** To further examine primary care accessibility, the survey asked about electronic access, timely appointments for visits when sick, after-hours access, and emergency room (ER) use (Exhibit 4). The responses indicate broad differences among countries in patients having same-day access to doctors when sick, finding care easily after hours, and ER use. German, Dutch, and New Zealand adults were the most likely—half or more—to report receiving same-day appointments the last time they were sick. Yet in Germany, the share of patients who reported long waits was also high, which indicates pockets of waiting-time concern. Although the majority of Australian patients could not get a same-day appointment, most said that it was very easy to reach their doctor by phone during the day, providing a potential alternative to visits. As yet, e-mail access remains low in all countries, although 30–40 percent of adults (except in Germany) said that they would like such access.

About half of adults in Germany, the Netherlands, and New Zealand said that getting after-hours access is easy—the highest rates in the survey. Notably, only 12 percent of the Dutch said that getting such care was very difficult, well below rates in the other countries. The responses likely reflect access through community after-hours cooperatives.

Consistent with past surveys, Canadian and U.S. adults were the least likely to report same-day access and the most likely to report long waits (six days or more) to see a doctor when sick.[19] They, along with Australians, were the most likely to report difficulty getting after-hours care. U.K. responses were in the middle.

As further indication of poorer primary care access, Canadian and U.S. adults were the most likely to have gone to a hospital ER in the past two years, to have multiple visits, and to say that they went to the ER for care their doctor could have provided if available. The high rates appear to be straining ER capacity: Forty-six percent of Canadians reported waiting two hours or more in the ER to be seen.

Those with a medical home were significantly less likely to report difficulty accessing care after hours than those without such a relationship. Indicating the potential for primary care with coordination to improve information flow across sites of care, patients with a medical home who had visited the ER were more likely than those without a medical home to report that their doctor was informed and up-to-date on care received in the ER (statistically significant in all countries except the Netherlands and Germany).

■ **Physician-patient communication and care coordination.** Emerging research provides evidence of the potential of more patient-centered care to improve

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EXHIBIT 4
Primary Care Access And Hospital Emergency Room Use In Seven Countries, 2007

	AUS	CAN	GER	NET	NZ	UK	US
Base: Has regular doctor/place:							
E-mail access (percent yes)							
Can you communicate with doctor/ practice by e-mail?	15%[b,e,f,g]	9%[c,d,e,g]	16%[e,f,g]	15%[e,f,g]	22%[f]	11%[g]	20%
If no, would you like to do so?	34[b,c,e,g]	40[c,f]	18[d,e,f,g]	38[f]	40[f]	32[g]	43
Access to medical records (percent yes)							
Can access medical records by computer, including the Internet	12[b,c,d,g]	5[c,d,e,f,g]	18[d,e,f,g]	7[e,f]	11[g]	9	10
If no, would you like to do so?	35[b,d,e]	43[e,f,g]	30[d,e,g]	49[f,g]	44[g]	36	37
Base: all adults							
Last time you were sick or needed care, how quickly could you get an appointment to see a doctor?							
Same day	42[b,c,d,e,g]	22[c,d,e,f,g]	55[d,f,g]	49[f,g]	53[f,g]	41[g]	30
Next day	20[b,c]	14[c,d,e,f,g]	10[d,e,f,g]	21	22[f]	17	19
2–5 days	26[c,d,e]	26[c,d,e]	10[d,e,f,g]	17[f,g]	17[f,g]	26	25
6 or more days	10[b,c,d,e,g]	30[c,d,e,f,g]	20[d,e,f]	5[f,g]	4[f,g]	12[g]	20
How easy or difficult is it to get care on nights, weekends, or holidays without going to hospital emergency room (ER)?							
Very or somewhat easy	32[c,d,e,f]	30[c,d,e,f]	47[f,g]	47[f,g]	46[f,g]	38[g]	30
Somewhat difficult	29	28	25	34	28	26	28
Very difficult	35[c,d,e,f,g]	38[c,d,e,f]	25[d,e,g]	12[e,f,g]	20[f,g]	29[g]	38
Very or somewhat difficult	64[c,d,e,f]	65[c,d,e,f]	50[d,e,g]	45[f,g]	48[f,g]	55[g]	67
Percent very or somewhat difficult among adults with and without a medical home							
Has medical home	57[h]	57[h]	41[h]	41[h]	42[h]	43[h]	61[h]
No medical home	74	73	58	49	58	64	72
Number of ER visits in past 2 years							
None	67[b,c,d]	60[c,d,e,f,g]	79[e,f,g]	82[e,f,g]	72[g]	69[g]	63
At least 1	33	39	21	18	28	28	36
2 or more	15[b,c,d,e]	20[c,d,e,f,g]	4[e,f,g]	6[e,f,g]	10[g]	13[g]	17
Went to ER for a condition that could have been treated by regular doctor if available	11[b,c,d,f]	16[c,d,e,f]	5[e,f,g]	6[e,g]	9[g]	8[g]	15
Waiting time in ER before being treated							
Less than 30 minutes	40[b,f]	25[c,d,e,g]	47[f,g]	48[f,g]	46[f,g]	28	33
30 minutes–less than 1 hour	15[c,d]	14[c,d,f,g]	25[e,g]	25[e]	15	22	19
2 hours or more	34[b,c,d]	46[c,d,e,f,g]	11[e,f,g]	9[e,f,g]	25	32	31
After ER visit, regular doctor was informed and up-to-date about ER care	57[d,g]	57[d,g]	60	66[f]	60	54[g]	66
Has medical home	70[h]	69[h]	64	67	69[h]	68[h]	73[h]
No medical home	42	44	55	66	46	43	58

SOURCE: Commonwealth Fund International Health Policy Survey, 2007.

NOTES: Reading from left to right starting with Australia, the letter indicates significant differences with countries to the right ($p < 0.05$), as indicated. For unweighted N, see Exhibit 2.

[b] Different from Canada.

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outcomes, safety, and efficiency as well to be more responsive to patients.[20] As a result, policy efforts have increasingly focused on communicating well with patients

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and engaging patients to become more actively involved. Ensuring that information flows with patients as they move across sites of care is also critical to integrating care. The findings, which reveal shortfalls across countries in communication and coordination of care, also highlight the positive influence of having a source of care that functions as a medical home, suggesting an important strategy for improving performance (Exhibit 5).

Across countries, a significant majority of adults said that their doctors always explain things clearly. In each country, responses were less positive about having enough time or whether doctors offer treatment choices and involve patients in decisions. British patients were the least likely to report that their doctors engaged them in care decisions. Yet at most two-thirds of adults (Australia and New

EXHIBIT 5
Doctor-Patient Communication And Care Coordination In Seven Countries, 2007

	AUS	CAN	GER	NET	NZ	UK	US
Doctor-patient communication: How often does the doctor or doctor at the place you usually go (percent always)							
Explain things in a way you can understand?							
All adults	79%[c,d,f,g]	75%[c,d,e,f,g]	71%[e]	71%[e]	80%[f,g]	71%	70%
Has medical home	88[h]	86[h]	81[h]	83[h]	90[h]	85[h]	83[h]
No medical home	65	63	61	61	61	57	55
Spend enough time with you?							
All adults	73[b,f,g]	59[c,d,e]	70[f,g]	71[f,g]	69[f,g]	59	56
Has medical home	83[h]	73[h]	82[h]	80[h]	80[h]	73[h]	71[h]
No medical home	58	43	59	64	50	45	37
Tell you about treatment options and involve you in decisions about best treatment?							
All adults	66[d,f]	62[f]	62[e,f]	60[e,f]	67[f,g]	54[g]	61
Has medical home	79[h]	77[h]	72[h]	72[h]	81[h]	68[h]	76[h]
No medical home	46	46	52	50	42	40	42
Overall rating of quality of care received from your doctor/usual source of care (percent excellent or very good)							
All adults	76[c,d,f,g]	73[c,d,e,f]	52[d,e,f,g]	58[e,f,g]	78[f,g]	65[g]	70
Has medical home	87[h]	88[h]	65[h]	70[h]	89[h]	82[h]	86[h]
No medical home	60	57	40	47	59	49	51
Coordination of care with specialists: Not counting your regular doctor, how many specialists have you seen in the past year?							
None	46[b,c,e,f]	55[c,d,f,g]	31[d,e,f,g]	45[e,f,g]	58[g]	60[g]	50
1	24[d,f]	24[d,f]	25[d,f]	29[e,f,g]	22	18[g]	23
2 or more	29[b,c,e,f]	20[c,d,g]	44[d,e,f,g]	25[e,f]	20[g]	19[g]	27
Last time you saw a new specialist or consultant, did your regular doctor/practice (percent yes)							
Help you decide whom to see?							
All adults	63[c,d,f]	63[c,d,e,f]	57[d,f,g]	35[e,f,g]	55[f,g]	45[g]	63
Has medical home	67[h]	69[h]	65[h]	43[h]	58[h]	51[h]	70[h]
No medical home	57	56	49	29	51	39	55
Provide specialist with information about your condition or problem?							
All adults	81[c,d,e,f,g]	76[c,d,e,f,g]	57[d,e,f,g]	65[g]	73	70	72
Has medical home	88[h]	82[h]	68[h]	69[h]	77[h]	80[h]	78[h]
No medical home	68	69	46	62	65	59	63

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EXHIBIT 5
Doctor-Patient Communication And Care Coordination In Seven Countries, 2007 (cont.)

	AUS	CAN	GER	NET	NZ	UK	US
Medical records and diagnostic tests coordination: In the past 2 years,							
Test results or medical records were not available at time of scheduled appointment							
All adults	11%[d,g]	11%[c,d,e,g]	8%[g]	7%[f,g]	9%[g]	10%[g]	15%
Has medical home	7[h]	8[h]	6[h]	6[h]	5[h]	6[h]	10[h]
No medical home	17	14	10	7	15	14	21
Doctors ordered a medical test that you felt was unnecessary because it had already been done							
All adults	10[b,c,d,e,f,g]	5[c,g]	15[d,e,f]	4[g]	6[g]	5[g]	14
Has medical home	6[h]	3[h]	11[h]	2[h]	4[h]	2[h]	10[h]
No medical home	14	7	18	5	8	8	17
Percent with either/both record or test coordination problems							
All adults	18[d,e,f,g]	15[c,d,g]	19[d,e,f,g]	9[f,g]	12[g]	13[g]	23
Has medical home	11[h]	10[h]	16[h]	8[h]	8[h]	7[h]	16[h]
No medical home	27	19	23	11	18	19	29
Hospitalized in past 2 years: After hospital stay, regular doctor was informed and up-to-date about plans for follow-up care	28[b,d,e,f,g]	16[c,d,e,f,g]	26[d,e,f,g]	22	21	19	21
All adults	74[c,d]	70[c,d,g]	85[d,e,f,g]	60[g]	70[g]	72	78
Has medical home	89[h]	81[h]	89[h]	70[h]	82[h]	85[h]	84[h]
No medical home	52	55	79	53	47	60	71

SOURCE: Commonwealth Fund International Health Policy Survey, 2007.

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Zealand) reported always hearing about options and being involved in decisions. Patients in Canada, the United States, and the United Kingdom were the least likely to report that their physicians always spend enough time with them. Although the majority of adults in all countries rated the quality of care they received highly, German and Dutch patients were less likely than adults in other countries were to give an excellent or very good rating.

On all four questions, adults with a medical home were more positive about their care from physicians than were those without such a relationship. There was a spread of twenty to thirty-five percentage points, in terms of positive ratings, between those with and without a medical home within countries.

Specialist use varied notably across countries. Forty-four percent of Germans reported seeing two or more specialists in the past year—a rate more than 50 percent higher than the next-highest countries (Australia and United States). Specialists use rates were lowest in the United Kingdom, New Zealand, and Canada.

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Asked whether their primary care source helped them decide whom to see or provided information to the specialist, responses were at times surprising, given different systems' policies on patient self-referral. Dutch and British patients were the least likely to say that their primary care doctor helped them decide whom to see. This may reflect a lack of specialist choice within these two systems. Shortfalls were also seen in communication between providers: Just 57 percent of German adults reported that their primary care physicians provided information to specialists—well below rates reported in other countries. In contrast, Australians and Canadians were significantly more likely than those in other countries were to report information exchange. Despite these distinct specialist patterns in different countries, patients with a medical home in all countries were more likely than those lacking a medical home were to report that their primary care doctor helped them decide whom to see and provided information to the specialist (Exhibit 5).

Poor coordination can result in medical records' and diagnostic test results' not being available at the time of care as well as in duplication of tests. One-fourth of U.S. adults reported at least one of these coordination problems—significantly more than in the other countries. Australians and Germans also reported relatively high rates, with German rates driven up by patients' perceptions of duplicate tests. Dutch patients were the least likely to cite either unavailable records/tests or duplication. In each country, having a relationship with a primary care medical home was associated with significantly lower rates of either of these coordination problems.

■ **Patients with chronic conditions.** Across countries, about half of adults reported at least one of seven chronic conditions, and 20–30 percent reported two or more conditions (Exhibit 6).[21] Adults reporting any chronic disease, on average, used care at high rates from multiple providers and settings, amplifying patterns seen in the countries' general populations. ER use was particularly high in Canada and the United States; multiple specialist use was high in Germany.

Chronically ill adults were also often taking complex medication regimens. Half or more of adults in each country reported taking two or more medications regularly, with one-fifth to two-fifths (United States) taking four or more. Among those with regular medications, differences in insurance coverage across countries resulted in marked differences in out-of-pocket spending for prescription drugs. U.S. patients were the most exposed, with more than two-fifths spending $500 or more a year—a rare occurrence in the Netherlands or the United Kingdom. Relatively high percentages of chronically ill patients in Australia and Canada also reported spending at this level.

Affordability was of particular concern in the United States, where 42 percent of chronically ill adults said that they had skipped medications, not seen a doctor, or forgone recommended care because of costs—a rate two to eight times higher than rates in the other countries. Asked specifically about care/advice for their

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EXHIBIT 6
Experiences Of Patients With Chronic Conditions In Seven Countries, 2007

	AUS	CAN	GER	NET	NZ	UK	US
Doctor diagnosis of chronic disease:							
Any of 7 chronic diseases (percent yes)	57%[b,c,d,e,f]	46%[e,f]	45%[e,f]	45%[e,f]	51%[g]	46%[g]	55%
One	26[e]	23[e,f]	24[e]	26[e]	32[f,g]	26	25
2 or more	30[b,c,d,e,f]	26[g]	21[g]	19[g]	19[g]	20[g]	30
Base: any chronic conditions							
Has medical home (percent yes)	60[b,c,d,f]	51[e]	48[e,g]	45[e,f,g]	62[f,g]	53	51
Saw two or more specialists in past year	37[b,c,e,f]	29[c,d,g]	55[d,e,f,g]	39[e,f]	25[g]	28[g]	38
Any visits to the ER in past 2 years	36[b,c,d,g]	45[c,d,e,f]	23[e,f,g]	24[e,f,g]	34[f,g]	36[g]	44
Number of prescription medications							
None	24	23	25	14	29	20	18
1	21	18	17	15	18	17	13
2 to 3	30	30	30	33	31	27	28
4 or more medications	25[d,e,f,g]	29[d,e,f,g]	28[d,e,f,g]	37[e,f]	21[f,g]	35[g]	40
Taking Rx regularly: spent $500 or more out of pocket for Rx in past year	30[b,c,d,e,f,g]	27[c,d,e,f,g]	10[d,f,g]	1[e,f,g]	13[f,g]	2[g]	42
Adherence to medical advice: time in past year you did not follow doctor's or nurse's advice for this condition	19[b,c,d,f]	13[c,d,e,f,g]	10[e,f,g]	10[e,f,g]	17[f]	6[g]	20
Main reason did not follow advice							
Did not agree with advice	17	26[g]	28[g]	23[g]	19	26	12
It cost too much	11[c,d,g]	7[c,g]	0	1[e,g]	9[g]	10	24
It was too difficult to follow advice	11[d]	11[c,d]	22[e,g]	29[e,g]	8	1	12
Time in past year you did not see a doctor, did not get recommended care, skipped doses/did not fill Rx because of cost	28[b,d,f,g]	14[c,d,e,f,g]	20[d,f,g]	5[e,f,g]	28[f,g]	9[g]	42
Were given written plan or instructions to manage your care at home	40[b,c,d,f,g]	33[c,g]	22[d,e,f,g]	31[g]	35[g]	30[g]	51
Has medical home	45[h]	38[h]	24	36	39[h]	34[h]	55[h]
No medical home	32	28	19	27	30	25	47
Received reminders when you were due for preventive care or follow-up care for your condition	44[c,d,f,g]	40[c,d,e,f,g]	57[e,g]	58[e,g]	48[f,g]	58[g]	70
Has medical home	50[h]	49[h]	67[h]	63	51[h]	64[h]	76[h]
No medical home	35	29	48	54	44	50	63
Often/sometimes received conflicting information from different doctors, nurses, or other health professionals	14[c,g]	16[g]	19[d]	13[e,f,g]	19	18	22
Has medical home	11[h]	11[h]	14[h]	7[h]	15[h]	13[h]	15[h]
No medical home	18	20	24	18	27	24	29

SOURCE: Commonwealth Fund International Health Policy Survey, 2007.

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chronic conditions, U.S. patients were the most likely to report a time when they did not adhere to medical advice and to name cost as the reason. In the other countries, the main reasons given for not adhering were lack of agreement or that it was

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too difficult.

Engaging chronically ill patients in managing their conditions helps avoid complications and improves outcomes over time. Although disease management initiatives are under way in all of the study countries, survey responses indicate that written care management plans are not as yet the norm. Reminder systems for follow-up care appear more prevalent, although there is wide variation across countries. The extent to which chronically ill adults encountered conflicting information also varied widely across countries, with rates highest in the United States, Germany, and New Zealand and lowest in the Netherlands.

The share of those with a chronic condition who had a medical home generally tracked the percentages in the general population, with Australians and New Zealanders the most likely to have such relationships. Across countries, chronically ill patients with a medical home were more likely than those lacking one to have received a care management plan and reminders and were less likely to report receiving conflicting information.

■ **Patient safety.** Patient safety is of shared concern across countries (Exhibit 7). Including all adults, those in the United States and Australia were the most likely to report either a medical or medication error (wrong dose or medication). Signaling more fragmented care and lack of computerized test results, U.S. adults also reported the highest rates of lab test errors (delays in being notified about abnormal tests or incorrect lab results). As in the 2005 survey, German patients reported the lowest rates of lab test errors. Overall, 12–20 percent of adults—U.S. and Australian rates were the highest—reported at least one of the four errors in the past two years.

Risks of adverse events increased markedly for those with more complex care or conditions. Across countries, patient-reported rates of any error were two or three times higher among adults who had seen three or more physicians than among patients who saw one physician during the year. Among adults with multiple chronic conditions, patient-reported error rates ranged from 16 percent in Germany to 32 percent in the United States.

The findings indicate that improved coordination can help mitigate the risk of error. Among patients with chronic conditions, having a medical home was associated with lower rates of patient-reported errors in all countries.

Discussion And Policy Implications

As countries confront the question of how best to organize care systems to achieve higher value, the study highlights the importance and potential of having a relationship with a primary care source that has characteristics of a medical home. The findings also reveal major variation across countries in the extent to which care is accessible, patient-centered, safe, and efficient, but also areas of shared concern. Patients' experiences underscore the importance of attention to insurance design as well as the organization of care to improve performance.

■ **Medical home.** Overall, the study indicates that having a medical home that is

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EXHIBIT 7
Medical, Medication, And Lab Errors In Seven Countries, 2007

	AUS	CAN	GER	NET	NZ	UK	US
Medical, medication errors:							
In past 2 years (percent yes)							
Been given the wrong medication or wrong dose?	8%[c]	6%	5%[g]	6%	6%	6%	7%
Had a time when you thought a medical mistake was made in your treatment or care?	11[b,c,d,f]	7[d,g]	6[g]	5[e,f]	8[f]	5[g]	9
Either medical or medication error	15[b,c,d,f]	10[g]	9[g]	9[g]	11	9[g]	13
Lab errors:							
Had blood tests, x-rays, or other tests in past 2 years (percent yes)	82[b,d,f]	79[c,d,f]	81[d,f]	72[e,f,g]	79[f]	62[g]	79
Been given incorrect results for diagnostic or lab test	5[c,d]	4[c,d,f]	2[g]	2[g]	3[g]	2[g]	5
Experienced delays in being notified about abnormal results	7[c,g]	9[c,e]	2[d,e,f,g]	7[g]	7[g]	8	11
Either lab or diagnostic error	11[c]	12[c,d,e]	4[d,e,f,g]	8[g]	9[g]	10[g]	14
Combined medical, medication, or lab errors:							
Any medical, medication, or lab error (percent yes)	20[c,d,f]	17[c,f,g]	12[c,g]	14[g]	16[f,g]	13[g]	20
Any error, number of doctors seen in past year							
One	15[h]	13[h]	7[h]	9[h]	13[h]	9[h]	17[h]
Three or more	27	30	16	27	34	29	33
Any error, number of chronic conditions							
One	19[h]	17[h]	14	15[h]	20	13[h]	21[h]
Two or more	26	28	16	25	22	24	32
Among adults with chronic condition, any error for those with and without a medical home							
Has medical home	18[h]	17[h]	11[h]	17[h]	15[h]	11[h]	21[h]
No medical home	30	29	19	22	30	26	34

SOURCE: Commonwealth Fund International Health Policy Survey, 2007.

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accessible and helps coordinate care makes a difference for patients. In all countries, such relationships were associated with significantly more positive care experiences, including more responsive and efficient care and lower rates of patient-reported errors. Primary care practices organized to facilitate access and coordinate care, in general, appear to be also more oriented toward patient-centered care, based on reports of positive communication with physicians.

The study finds that such medical home connections are not systemwide in any country. Despite very different country practices regarding primary care, across all countries only 50–60 percent of adults described a relationship that included knowledge of the patient's medical history, easy phone access, and help in coordinating care. In each country, low rates of coordination reduced the percentage of primary sources of care classified as a medical home.

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■ **Care coordination.** Shortfalls in care coordination, including failure of information to flow with patients, exist across countries. The fact that half of adults in this general population survey saw a specialist during the year, even in countries known for strong generalist primary care infrastructures, highlights the need for more integrated approaches to care. All but two countries in the study require primary care referrals for access to specialists. The findings indicate that control of referrals does not assure coordination.

In our analysis, those with a medical home were more likely than those without one to indicate that exchange of information occurred after hospitalization or when seeing specialists and were less likely to encounter unavailable records and test results or duplication, confirming patients' general perceptions that these practices help coordinate care. Support of improved, more widespread coordination capacity and electronic information technology (IT) systems that enable exchange offer the potential to integrate care and improve patients' experiences. As discussed in the 2006 survey article, national incentives and IT initiatives are under way in several of these countries, offering opportunities to learn as practices receive financial incentives and new tools.[22]

■ **Timely access and after-hours care.** Depending on the question, adults in Australia, the Netherlands, New Zealand, and Germany were significantly more likely than adults in the other countries to say that they received same- or next-day appointments when needed and found it easy to call or to get after-hours care. The substantial country differences indicate that it is possible to organize care systems to provide more timely access. Research is needed to understand the extent to which office design, use of teams, nurses, and physician supply make a difference.

Although access to care after hours emerged as a shared concern, the contrast between the Netherlands and the other countries indicates the efficacy of communitywide rather than practice-specific approaches. With after-hours access provided by physician-led cooperatives, Dutch patients were the least likely to say that after-hours access was very difficult, irrespective of primary care connections.

■ **Insurance and performance.** Cross-country comparisons indicate that insurance design affects patients' overall care experiences as well as access. With high rates of adults being uninsured and underinsured, the United States stands out for cost-related access barriers and financial stress. U.S. findings also reveal multiple indicators of inefficient care, including medical record/test result delays and mistakes, duplication, time spent on paperwork or disputes, and perceptions that doctors provide care of little value. Further, U.S. adults often report waits for primary care, find it difficult to get care after hours, and end up seeking care from ERs—joining Canada with symptoms of a primary care system under stress.

Fragmented and less continuous coverage make it difficult to address these systemic concerns. Absent efforts to expand coverage to all and a multipayer collaborative strategy, there are few leverage points to align incentives to support higher-

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quality, more-efficient care. Fragmented coverage also undermines a population-based approach that could spur development of IT to support more effective, safe, and efficient care. The U.S. experience provides a note of caution, as countries such as the Netherlands seek to introduce competing insurance entities as part of strategies to improve.

■ **Engaging patients.** Although patient choice and engagement are priorities across the seven health systems, the findings demonstrate that all countries have room for improvement. Country efforts to build interdisciplinary teams; innovate with nurse-led care and coordination; and develop creative applications of Internet, telemedicine, and IT are positive steps that should support progress on this front.

Finding more time for patients also emerges as a recurring theme voiced by patients in this and previous surveys. A recent study found that the amount of time U.S. patients spent per year with their primary care doctors was about half of that in New Zealand and a third of that in Australia.[23] The strongly positive experiences reported by Australian and New Zealand adults indicate that having more time to spend with patients makes a difference.

■ **Toward higher performance.** Looking forward, the seven countries we studied face the shared challenge of how to integrate care in an era of specialization and shortages of primary care physicians. Achieving better care coordination will likely require designs that include a mix of formally integrated organizations, co-locating or sharing services, and connecting through information systems. Aging populations and medical science advances will likely require workforce as well as system innovations to improve health and meet population needs. Developing medical-home approaches offers the potential to move toward higher performance.

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NOTES

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9. J. Cylus and G. Anderson, *Multinational Comparisons of Health Systems Data, 2006* (New York: Commonwealth Fund, May 2007).
10. The Center for Quality of Care Research oversaw the fieldwork in the Netherlands.
11. C. Schoen et al., "Primary Care and Health System Performance: Adults' Experiences in Five Countries," *Health Affairs* 23 (2004): w487–w503 (published online 28 October 2004; 101377/hlthaff.w4.487); and C. Schoen et al., "Taking the Pulse of Health Care Systems: Experiences of Patients with Health Problems in Six Countries," *Health Affairs* 24 (2005): w509–w525 (published online 3 November 2005; 10.1377/hlthaff .w5.509).
12. Harris made extensive efforts to assure representative samples. Initial phone numbers were randomly sampled using random-digit dialing from sampling frames. Adults were selected randomly within households. A minimum of seven calls were made, with calls at different times of day, on weekdays and weekends.
13. Weights included age, sex, region, education, and additional variables consistent with standards for each country. In the United States, weights also included race and ethnicity. Contrasts of unweighted-to-expected population distribution indicate that in most countries, the unweighted sample tended to have fewer than expected men, younger adults, less educated adults, and minority adults. The weights adjust to the expected population distribution but likely still underrepresent lower-income and hard-to-reach populations, especially those speaking other languages, without phones, or whose health limited their participation.
14. Regression results and results of the stepwise analysis creating the medical home variable are available from the authors on request. Send e-mail to Cathy Schoen, cs@cmwf.org.
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16. Ibid.
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