Taking the Pulse of the U.S. Health Care System
Quality, Safety and Efficiency
International and National Perspectives

Cathy Schoen
Senior Vice President
August 21, 2006
Harvard Quality Colloquium

cs@cmwf.org
www.cmwf.org
US Health System: International and National Experiences

- U.S. highest cost health system in the world yet often fails to deliver high quality, high value care
- Quality varies widely despite centers of excellence
- Access is of increasing concern
  - Uninsured and underinsured
- International view of safety, quality and access from patients’ perspectives
  - US mixed performance
  - US stands out for poor care coordination, safety concerns and access barriers due to cost
  - Shared challenges in managing transitions and chronic care
- Opportunities and targets to improve care
Taking the Pulse
2005 Survey of “Sicker” Adults in Six Countries

• Telephone survey of sicker adults ages 18 and older in Australia, Canada, Germany, New Zealand, U.K., and U.S.

• Adults met at least one of the following criteria:
  – Self reported health status is fair or poor
  – Serious illness in the past 2 years
  – Hospitalized or had major surgery in the past 2 years

• Survey sample included 7,000 “sicker” adults: 702 Australia, 751 Canada, 1,503 Germany, 704 New Zealand, 1,770 United Kingdom, and 1,527 United States

• Conducted by Harris Interactive March 2005 to June 2005

• Focus on safety, coordination, patient-physician communication and access experiences
Hospital Stay and Discharge Experiences

- Missed opportunities to discuss risks with patients
- Medication review
- Care coordination and transition care at discharge
Were Risks Explained Before A Hospital Procedure in an Understandable Way?

Base: Hospitalized in past 2 years
Percent said risks were NOT explained

AUS: 18
CAN: 21
GER: 12
NZ: 17
UK: 16
US: 14

2005 Commonwealth Fund International Health Policy Survey of Sicker Adults
Failure to Discuss Medications Used Before Hospitalized on Discharge

Percent of patients with new prescription who said prior medications were not reviewed at discharge

AUS 23  CAN 28  GER 14  NZ 31  UK 27  US 33

2005 Commonwealth Fund International Health Policy Survey of Sicker Adults
# Deficiencies in Transition Planning When Discharged from the Hospital

**Base:** Hospitalized in past 2 years

<table>
<thead>
<tr>
<th>Percent who reported when discharged:</th>
<th>AUS</th>
<th>CAN</th>
<th>GER</th>
<th>NZ</th>
<th>UK</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did NOT receive instructions about symptoms to watch and when to seek further care</td>
<td>18</td>
<td>17</td>
<td>23</td>
<td>14</td>
<td>26</td>
<td>11</td>
</tr>
<tr>
<td>Did NOT know who to contact with questions about condition or treatment</td>
<td>9</td>
<td>12</td>
<td>12</td>
<td>9</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Hospital did NOT arrange for follow-up visits</td>
<td>23</td>
<td>30</td>
<td>50</td>
<td>23</td>
<td>19</td>
<td>27</td>
</tr>
<tr>
<td>% any of the above</td>
<td>36</td>
<td>41</td>
<td>60</td>
<td>33</td>
<td>37</td>
<td>33</td>
</tr>
</tbody>
</table>

2005 Commonwealth Fund International Health Policy Survey of Sicker Adults
Readmitted to a Hospital or Went to ER as a Result of Complications after Discharge

Base: Hospitalized in past 2 years

Percent readmitted or ER visit due to complications

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUS</td>
<td>20%</td>
</tr>
<tr>
<td>CAN</td>
<td>16%</td>
</tr>
<tr>
<td>GER</td>
<td>10%</td>
</tr>
<tr>
<td>NZ</td>
<td>15%</td>
</tr>
<tr>
<td>UK</td>
<td>17%</td>
</tr>
<tr>
<td>US</td>
<td>14%</td>
</tr>
</tbody>
</table>

2005 Commonwealth Fund International Health Policy Survey of Sicker Adults
U.S. Variations in Patient-Centered Hospital Care: Staff Managed Pain, Responded When Needed Help, and Explained Medicines, 2005

Percent of patients reporting “always”

- **Average**
- **Best Hospital**
- **90th %ile Hospitals**
- **10th %ile Hospitals**

<table>
<thead>
<tr>
<th></th>
<th>Average</th>
<th>Best Hospital</th>
<th>90th %ile Hospitals</th>
<th>10th %ile Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Staff managed pain well</strong> *</td>
<td>70</td>
<td>93</td>
<td>79</td>
<td>61</td>
</tr>
<tr>
<td><strong>Staff responded when needed help</strong> **</td>
<td>63</td>
<td>63</td>
<td>74</td>
<td>52</td>
</tr>
<tr>
<td><strong>Staff explained medicines and side effects</strong>*</td>
<td>60</td>
<td>100</td>
<td>70</td>
<td>49</td>
</tr>
</tbody>
</table>

*Patient’s pain was well controlled and hospital staff did everything to help with pain

**Patient got help as soon as wanted after patient pressed call button and in getting to the bathroom/using bedpan

***Hospital staff told patient what medicine was for and described possible side effects in a way that patient could understand.

SOURCE: 2005 CAHPS Hospital Survey results for 254 hospitals. National CAHPS Benchmarking Database
U.S. Heart Failure Patients Given Written Instructions or Educational Materials When Discharged, 2004

Percent of heart failure patients discharged home with written instructions or educational material*

- **National Average:** 50
- **Top 10 %tile Hospitals:** 87
- **Bottom 10 %tile Hospitals:** 9
- **Top 10% States:** 64
- **Top 25% State:** 60
- **Median:** 49
- **Bottom 25% States:** 33
- **Bottom 10% States:** 26

*Discharge instructions must address all of the following: activity level, diet, discharge medications, follow-up appointment, weight monitoring, and what to do if symptoms worsen

SOURCE: A. Jha and A. Epstein, Harvard University analysis of Hospital Quality Alliance national reporting system; State estimates – Hospital Compare database at www.hospitalcompare.hhs.gov
U.S. Hospital 30-Day Readmission Rates, Medicare Variations by State, 2003

Rate of hospital readmission within 30 days

National: 18
Top 10%: 14
Top 25%: 15
Bottom 25%: 21
Bottom 10%: 22

Source: G. Anderson and R. Herbert for the Commonwealth Fund, Medicare Standard Analytical File 5% 2001 data.
Coordinated Care Across Sites of Care Makes a Difference
Care Transition Measure Scores,* Emergency Department
Use, and Hospital Readmissions

---

**Emergency Department Use**

<table>
<thead>
<tr>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>69</td>
<td>68</td>
</tr>
</tbody>
</table>

p=0.01

---

**Hospital Readmissions**

<table>
<thead>
<tr>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>69</td>
<td>68</td>
</tr>
</tbody>
</table>

p=0.04

---

* When I left the hospital, I had a good understanding of the things I was responsible for in managing my health; when I left the hospital, I clearly understood the purpose for taking each of my medications; The hospital staff took my preferences and those of my family or caregiver into account in deciding what my health care needs would be when I left the hospital.

Safety: Medication, Medical and Diagnostic Test Errors
Medical Mistake or Medication Error
In Past Two Years

Percent reporting either mistake or medication error

<table>
<thead>
<tr>
<th>Country</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUS</td>
<td>19</td>
</tr>
<tr>
<td>CAN</td>
<td>19</td>
</tr>
<tr>
<td>GER</td>
<td>19</td>
</tr>
<tr>
<td>NZ</td>
<td>18</td>
</tr>
<tr>
<td>UK</td>
<td>17</td>
</tr>
<tr>
<td>US</td>
<td>22</td>
</tr>
</tbody>
</table>

2005 Commonwealth Fund International Health Policy Survey of Sicker Adults
Medical Mistake or Medication Error Occurred Outside the Hospital

Base: Experienced medical mistake or medication error
Percent saying error occurred outside the hospital

- AUS: 63%
- CAN: 60%
- GER: 63%
- NZ: 63%
- UK: 67%
- US: 77%

2005 Commonwealth Fund International Health Policy Survey of Sicker Adults
Incorrect Lab/Diagnostic Test or Delay in Receiving Abnormal Test Results

Percent reporting either lab test error in past two years

AUS: 14
CAN: 18
GER: 9
NZ: 14
UK: 11
US: 23

2005 Commonwealth Fund International Health Policy Survey of Sicker Adults
Any Error: Medical Mistake, Medication Error or Test Error in Past 2 Years

Percent

AUS 27  CAN 30  GER 23  NZ 25  UK 22  US 34

2005 Commonwealth Fund International Health Policy Survey of Sicker Adults
Mistake Any Error By Number of Doctors Seen in Past 2 Years

<table>
<thead>
<tr>
<th>Country</th>
<th>1 Doctor</th>
<th>4 or more Doctors</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUS</td>
<td>12</td>
<td>37</td>
</tr>
<tr>
<td>CAN</td>
<td>15</td>
<td>40</td>
</tr>
<tr>
<td>GER</td>
<td>14</td>
<td>31</td>
</tr>
<tr>
<td>NZ</td>
<td>14</td>
<td>35</td>
</tr>
<tr>
<td>UK</td>
<td>12</td>
<td>28</td>
</tr>
<tr>
<td>US</td>
<td>22</td>
<td>48</td>
</tr>
</tbody>
</table>

2005 Commonwealth Fund International Health Policy Survey of Sicker Adults
Care Coordination and Patient -Doctor Communication
# Care Coordination

## Percent saying in the past 2 years:

<table>
<thead>
<tr>
<th></th>
<th>AUS</th>
<th>CAN</th>
<th>GER</th>
<th>NZ</th>
<th>UK</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test results or records not available at time of appointment</td>
<td>12</td>
<td>19</td>
<td>11</td>
<td>16</td>
<td>16</td>
<td>23</td>
</tr>
<tr>
<td>Duplicate tests: doctor ordered test that had already been done</td>
<td>11</td>
<td>10</td>
<td>20</td>
<td>9</td>
<td>6</td>
<td>18</td>
</tr>
<tr>
<td>Percent who experienced either coordination problem</td>
<td>19</td>
<td>24</td>
<td>26</td>
<td>21</td>
<td>19</td>
<td>33</td>
</tr>
</tbody>
</table>

2005 Commonwealth Fund International Health Policy Survey of Sicker Adults
Coordination Problems by Number of Doctors

<table>
<thead>
<tr>
<th>Country</th>
<th>1 Doctor</th>
<th>4 or more Doctors</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUS</td>
<td>15</td>
<td>27</td>
</tr>
<tr>
<td>CAN</td>
<td>16</td>
<td>31</td>
</tr>
<tr>
<td>GER</td>
<td>23</td>
<td>30</td>
</tr>
<tr>
<td>NZ</td>
<td>7</td>
<td>30</td>
</tr>
<tr>
<td>UK</td>
<td>11</td>
<td>26</td>
</tr>
<tr>
<td>US</td>
<td>22</td>
<td>43</td>
</tr>
</tbody>
</table>

*Either records/results did not reach doctors office in time for appointment OR doctors ordered a duplicate medical test*

2005 Commonwealth Fund International Health Policy Survey of Sicker Adults
## Prescription Medications

**Base:** Adults with chronic disease on regular medications

<table>
<thead>
<tr>
<th>Percent saying doctor:*</th>
<th>AUS</th>
<th>CAN</th>
<th>GER</th>
<th>NZ</th>
<th>UK</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does NOT review medications, including RX by other doctors</td>
<td>46</td>
<td>38</td>
<td>35</td>
<td>42</td>
<td>42</td>
<td>40</td>
</tr>
<tr>
<td>Does NOT explain side effects</td>
<td>36</td>
<td>40</td>
<td>47</td>
<td>33</td>
<td>48</td>
<td>49</td>
</tr>
</tbody>
</table>

*Doctor only sometimes, rarely or never

2005 Commonwealth Fund International Health Policy Survey of Sicker Adults
Doctor Gives You Plan for Self-Management

Base: Adults with chronic disease
Percent given self-management plan

2005 Commonwealth Fund International Health Policy Survey of Sicker Adults
Doctor’s Office Has a Nurse Regularly Involved in Care Management

Base: Adults with chronic disease
Percent have nurse involved

<table>
<thead>
<tr>
<th>Country</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUS</td>
<td>16</td>
</tr>
<tr>
<td>CAN</td>
<td>19</td>
</tr>
<tr>
<td>GER</td>
<td>47</td>
</tr>
<tr>
<td>NZ</td>
<td>36</td>
</tr>
<tr>
<td>UK</td>
<td>52</td>
</tr>
<tr>
<td>US</td>
<td>41</td>
</tr>
</tbody>
</table>

2005 Commonwealth Fund International Health Policy Survey of Sicker Adults
Adults with Diabetes Who Received Recommended Care, by Self-Management Plan or Nurse Involvement

Includes Hemoglobin A1C and cholesterol checked, and feet and eyes examined

- **Average**
- **Neither self-management plan or nurse**
- **Self-management plan and/or nurse**

2005 Commonwealth Fund International Health Policy Survey of Sicker Adults
Access
## Cost-Related Access Problems

<table>
<thead>
<tr>
<th>Percent in past year due to cost:</th>
<th>AUS</th>
<th>CAN</th>
<th>GER</th>
<th>NZ</th>
<th>UK</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did not fill prescription or skipped doses</td>
<td>22</td>
<td>20</td>
<td>14</td>
<td>19</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>Had a medical problem but did not visit doctor</td>
<td>18</td>
<td>7</td>
<td>15</td>
<td>29</td>
<td>4</td>
<td>34</td>
</tr>
<tr>
<td>Skipped test, treatment or follow-up</td>
<td>20</td>
<td>12</td>
<td>14</td>
<td>21</td>
<td>5</td>
<td>33</td>
</tr>
<tr>
<td>Percent who said yes to at least one of the above</td>
<td>34</td>
<td>26</td>
<td>28</td>
<td>38</td>
<td>13</td>
<td>51</td>
</tr>
</tbody>
</table>

2005 Commonwealth Fund International Health Policy Survey of Sicker Adults
Out-of-Pocket Medical Costs in the Past Year

2005 Commonwealth Fund International Health Policy Survey of Sicker Adults
Waiting Time to See Doctor When Sick or Need Medical Attention, Sicker Adults in Six Countries, 2005

Last time you were sick or needed medical attention, how quickly could you get an appointment to see a doctor?

Percent of adults

<table>
<thead>
<tr>
<th>Country</th>
<th>Next day</th>
<th>Same day (6 days or more)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NZ</td>
<td>23</td>
<td>58</td>
</tr>
<tr>
<td>GER</td>
<td>13</td>
<td>56</td>
</tr>
<tr>
<td>AUS</td>
<td>17</td>
<td>49</td>
</tr>
<tr>
<td>UK</td>
<td>16</td>
<td>45</td>
</tr>
<tr>
<td>US</td>
<td>17</td>
<td>30</td>
</tr>
<tr>
<td>CAN</td>
<td>13</td>
<td>43</td>
</tr>
</tbody>
</table>

Source: 2005 Commonwealth Fund International Health Policy Survey of Sicker Adults (Schoen et al. Taking the Pulse of Health Systems, Health Affairs November 2005)
Difficulty Getting Care on Nights, Weekends, Holidays Without Going to The ER

Percent Saying “Very” or “Somewhat Difficult”

<table>
<thead>
<tr>
<th>Country</th>
<th>Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUS</td>
<td>59</td>
</tr>
<tr>
<td>CAN</td>
<td>54</td>
</tr>
<tr>
<td>GER</td>
<td>25</td>
</tr>
<tr>
<td>NZ</td>
<td>28</td>
</tr>
<tr>
<td>UK</td>
<td>38</td>
</tr>
<tr>
<td>US</td>
<td>61</td>
</tr>
</tbody>
</table>

2005 Commonwealth Fund International Health Policy Survey of Sicker Adults
Went to the ER for Condition that Could Have Been Treated by Regular Doctor if Available

2005 Commonwealth Fund International Health Policy Survey of Sicker Adults
International View Summary

• U.S. an outlier on cost barriers with evidence of poorly coordinated fragmented care, lack of primary care access

• Medical Errors: High rates in multiple areas
  – Patients reported errors occur outside the hospital

• Shared challenges across countries
  – Coordination: Failures to coordinate well across sites of care, especially during transitions
  – Chronic Care: Gaps in engaging patients and use of teams to help manage care
  – Opportunities to learn from exchange
US Health Care System - Trends

• Markedly higher health care expenditures but variable performance in international comparisons

• Wide variations in quality and costs

• Access of increasing concern

• Fragmented insurance and care systems
  – Uninsured and underinsured

• Need to improve Access, Quality and Efficiency
International Comparison of Spending on Health, 1980–2004

Average spending on health per capita ($US PPP)

Total expenditures on health as % GDP

Source: OECD Health Data 2005 and 2006
Percent of Adults Ages 18–64 Uninsured by State

1999–2000

2003–2004

23% or more
19%–22.9%
14%–18.9%
Less than 14%

46 Million Uninsured in 2004; Increasing Steadily Since 2000

*1999–2003 estimates reflect the results of follow-up verification questions and implementation of Census 2000-based population controls.


U.S. Adults Without Insurance Are Less Likely to Be Able to Manage Chronic Conditions

Percent of adults ages 19–64 with at least one chronic condition*

- **Uninsured now**
- **Insured now, time uninsured in past year**
- **Insured all year**

- **Visited ER, hospital, or both for chronic condition**
  - Uninsured now: 35%
  - Insured now, time uninsured: 27%
  - Insured all year: 16%

- **Skipped doses or did not fill prescription for chronic condition because of cost**
  - Uninsured now: 59%
  - Insured now, time uninsured: 58%
  - Insured all year: 18%

* Hypertension, high blood pressure, or stroke; heart attack or heart disease; diabetes; asthma, emphysema, or lung disease.

“Underinsured” and Uninsured Adults Experience High Rates of Access Problems and Financial Stress

Percent adults 19-64, 2003

<table>
<thead>
<tr>
<th>Condition</th>
<th>Insured, not underinsured</th>
<th>Underinsured</th>
<th>Uninsured during year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Went without care due to costs</td>
<td>25</td>
<td>54</td>
<td>59</td>
</tr>
<tr>
<td>Contacted by collection agency about medical bills</td>
<td>11</td>
<td>46</td>
<td>44</td>
</tr>
</tbody>
</table>

* Did not fill a prescription; did not see a specialist; skipped recommended care; or did not see doctor when sick because of costs.

Cost-Sharing Reduces Use of Both Essential and Less Essential Drugs and Increases Risk of Adverse Events

Percent reduction in drugs per day
- Elderly
- Low Income

Essential: 9, 14
Less Essential: 15, 22

Percent increase in incidence per 10,000
- Elderly
- Low Income

Adverse Events:
- Elderly: 117
- Low Income: 97

ED Visits:
- Elderly: 43
- Low Income: 78

Inadequate Clinical Information Systems
U.S. Doctors Electronic Access to Test Results, Medical Records and Electronic Ordering

Percent who “routinely/occasionally” use the following:

- Electronic test results
- Electronic medical records
- Electronic ordering*

* Electronic ordering of tests, procedures, or drugs.

Quality and Medicare Spending Vary Across U.S. States, 2000–2001


**NOTE:** For quality ranking, smaller values equal higher quality.
Take Away Messages

• We should expect more given the resources committed to health care.

• Coordination is a key aspect of safety and effective care – This includes across sites of care

• Unacceptably wide variation in the quality and cost of care – patient experiences as well as clinical indicators provide targets for improvement

• Information technology -- lagging behind

• Re-design toward more integrated care, with evidence based practice goals

• Insurance and access are essential for improving quality and safety

• Physician leadership is critical
Acknowledgements

With appreciation to:

• Co-Authors: Robin Osborn, Phuong Trang Huynh, Michelle Doty, Kinga Zapert, Jordan Peugh and Karen Davis

• For 2005 Six Country of Sicker Adults and 2004 Five Country Survey of Primary Care All Adults see:

• For international and national studies on U.S. quality and care

Visit the Fund at: [www.cmwf.org](http://www.cmwf.org)