Learning from High Performance Health Systems Around the Globe

Karen Davis
President, The Commonwealth Fund
Senate HELP Committee Hearing
January 10, 2007
Figure 1. International Comparison of Spending on Health, 1980–2004

Average spending on health per capita ($US PPP)

- United States
- Germany
- Canada
- France
- Australia
- United Kingdom

Total expenditures on health as percent of GDP

- United States
- Germany
- Canada
- France
- Australia
- United Kingdom


Figure 2. Mortality Amenable to Health Care

Deaths per 100,000 population*

International Variation, 1998

<table>
<thead>
<tr>
<th>Country</th>
<th>Deaths per 100,000 population</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>75</td>
</tr>
<tr>
<td>Japan</td>
<td>81</td>
</tr>
<tr>
<td>Spain</td>
<td>84</td>
</tr>
<tr>
<td>Sweden</td>
<td>88</td>
</tr>
<tr>
<td>Italy</td>
<td>88</td>
</tr>
<tr>
<td>Australia</td>
<td>88</td>
</tr>
<tr>
<td>Canada</td>
<td>92</td>
</tr>
<tr>
<td>Norway</td>
<td>97</td>
</tr>
<tr>
<td>Netherlands</td>
<td>97</td>
</tr>
<tr>
<td>Greece</td>
<td>99</td>
</tr>
<tr>
<td>Germany</td>
<td>106</td>
</tr>
<tr>
<td>Austria</td>
<td>107</td>
</tr>
<tr>
<td>New Zealand</td>
<td>109</td>
</tr>
<tr>
<td>Denmark</td>
<td>109</td>
</tr>
<tr>
<td>United States</td>
<td>115</td>
</tr>
<tr>
<td>Finland</td>
<td>115</td>
</tr>
<tr>
<td>Ireland</td>
<td>129</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>130</td>
</tr>
<tr>
<td>Portugal</td>
<td>132</td>
</tr>
</tbody>
</table>

State Variation, 2002

<table>
<thead>
<tr>
<th>U.S. Average</th>
<th>10th %ile</th>
<th>25th %ile</th>
<th>Median</th>
<th>75th %ile</th>
<th>90th %ile</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>110</td>
<td>84</td>
<td>90</td>
<td>103</td>
<td>119</td>
</tr>
</tbody>
</table>

* Countries’ age-standardized death rates, ages 0–74; includes ischemic heart disease.
See Technical Appendix for list of conditions considered amenable to health care in the analysis.
Data: International estimates—World Health Organization, WHO mortality database (Nolte and McKee 2003);
State estimates—K. Hempstead, Rutgers University using Nolte and McKee methodology.
Figure 3. Breast Cancer 5-year Relative Survival Rate

Standardized Performance on Quality Indicator
100=Worst Result; Higher Score=Better Results

Figure 4. Kidney Transplant 5-year Relative Survival Rate

Standardized Performance on Quality Indicator
100=Worst Result; Higher Score=Better Results

Figure 5. Access Problems Because of Costs in Five Countries, Total and by Income, 2004

Percent of adults who had any of three access problems* in past year because of costs

UK=United Kingdom; CAN=Canada; AUS=Australia; NZ=New Zealand; US=United States.

Data: 2004 Commonwealth Fund International Health Policy Survey of Adults’ Experiences with Primary Care (Schoen et al. 2004; Huynh et al. 2006).

Figure 6. Out-of-Pocket Medical Costs in the Past Year

Source: 2005 Commonwealth Fund International Health Policy Survey of Sicker Adults
<table>
<thead>
<tr>
<th>Percent:</th>
<th>AUS</th>
<th>CAN</th>
<th>GER</th>
<th>NZ</th>
<th>UK</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has regular doctor</td>
<td>92</td>
<td>92</td>
<td>97</td>
<td>94</td>
<td>96</td>
<td>84</td>
</tr>
<tr>
<td>Less than 2 years</td>
<td>16</td>
<td>12</td>
<td>6</td>
<td>19</td>
<td>14</td>
<td>17</td>
</tr>
<tr>
<td>5 years or more</td>
<td>56</td>
<td>60</td>
<td>76</td>
<td>57</td>
<td>66</td>
<td>42</td>
</tr>
<tr>
<td>No regular doctor</td>
<td>8</td>
<td>8</td>
<td>3</td>
<td>6</td>
<td>4</td>
<td>16</td>
</tr>
</tbody>
</table>

Source: 2005 Commonwealth Fund International Health Policy Survey of Sicker Adults
Figure 8. 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?

NZ=New Zealand; GER=Germany; AUS=Australia; UK=United Kingdom; US=United States; CAN=Canada.
Data: 2005 Commonwealth Fund International Health Policy Survey of Sicker Adults (Schoen et al. 2005a).
Figure 9. Difficulty Getting Care on Nights, Weekends, Holidays Without Going to the ER, Among Sicker Adults in Six Countries, 2005

Percent of adults who sought care reporting “very” or “somewhat” difficult

GER=Germany; NZ=New Zealand; UK=United Kingdom; CAN=Canada; AUS=Australia; US=United States.
Data: 2005 Commonwealth Fund International Health Policy Survey of Sicker Adults (Schoen et al. 2005a).
Figure 10. Practice Has Arrangement for After-Hours Care to See Nurse/Doctor

Source: 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians
**Figure 11. Patients Report Problems with Care Coordination**

<table>
<thead>
<tr>
<th>Percent saying in the past 2 years:</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>

Source: 2005 Commonwealth Fund International Health Policy Survey of Sicker Adults
Figure 12. Doctor Routinely Gives Patients with Chronic Diseases Plan to Manage Care at Home

Percent gives written plan

Source: 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians
Figure 13. Any Error: Medical Mistake, Medication Error or Test Error in Past 2 Years

Source: 2005 Commonwealth Fund International Health Policy Survey of Sicker Adults
Figure 14. Patients Reporting Any Error by Number of Doctors Seen in Past Two Years

Source: 2005 Commonwealth Fund International Health Policy Survey of Sicker Adults
Figure 15. Primary Care Doctors Use of Electronic Patient Medical Records, 2006

Source: 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians
Figure 16. Patients Routinely Sent Reminder Notices for Preventive or Follow-Up Care

Percent report yes, using a computerized system

Source: 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians
Figure 17. Doctor Routinely Receives Alert about Potential Problem with Drug Dose/Interaction

Source: 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians
Figure 18. Primary Care Practices with Advanced Information Capacity

Percent reporting 7 or more out of 14 functions*

*Count of 14: EMR, EMR access other doctors, outside office, patient; routine use electronic ordering tests, prescriptions, access test results, access hospital records; computer for reminders, Rx alerts, prompt tests results; easy to list diagnosis, medications, patients due for care.

Source: 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians
Figure 19. Primary Care Doctors’ Reports of Any Financial Incentives Targeted on Quality of Care

Percent reporting any financial incentive*

* Receive of have potential to receive payment for: clinical care targets, high patient ratings, managing chronic disease/complex needs, preventive care, or QI activities

Source: 2006 Commonwealth Fund International Health Policy Survey of Primary Care Physicians
Figure 20. Percentage of National Health Expenditures Spent on Health Administration and Insurance, 2003

Net costs of health administration and health insurance as percent of national health expenditures

<table>
<thead>
<tr>
<th>Country</th>
<th>Net Costs (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>1.9</td>
</tr>
<tr>
<td>Finland</td>
<td>2.1</td>
</tr>
<tr>
<td>Japan</td>
<td>2.1</td>
</tr>
<tr>
<td>Canada</td>
<td>2.6</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>3.3</td>
</tr>
<tr>
<td>Netherlands</td>
<td>4.0</td>
</tr>
<tr>
<td>Austria</td>
<td>4.1</td>
</tr>
<tr>
<td>Australia</td>
<td>4.2</td>
</tr>
<tr>
<td>Switzerland</td>
<td>4.8</td>
</tr>
<tr>
<td>Germany</td>
<td>5.6</td>
</tr>
<tr>
<td>United States</td>
<td>7.3</td>
</tr>
</tbody>
</table>

* Includes claims administration, underwriting, marketing, profits, and other administrative costs; based on premiums minus claims expenses for private insurance.

Data: OECD Health Data 2005.

Figure 21. Denmark Leads the Way in Patient-centered Primary Care

• Blended primary care payment system
  – Fee for service
  – Medical home monthly fee per patient

• Organized off-hours service
  – Physicians staff phone banks nights and weekends with computerized access to patient information; paid for telephone consultations
  – Physicians staff evening and weekend clinics, and
  – Off-hours service physicians do home visits

• Health information technology and information exchange
  – 98% of primary care physicians totally electronic health records and e-prescribing
  – Paid for e-mail with patients
  – All prescriptions, lab and imaging tests, specialist consult reports, hospital discharge letters flow through a single electronic portal (MedComm – a nonprofit organization) accessible to patients, physicians, and home health nurses
Figure 22. Primary Care Score vs. Health Care Expenditures, 1997

Source: B. Starfield, “Why More Primary Care: Better Outcomes, Lower Costs, Greater Equity,” Presentation to the Primary Care Roundtable: Strengthening Adult Primary Care: Models and Policy Options, October 3, 2006. According to Starfield, good primary care is defined as high levels of first contact accessibility, patient-focused care over time, a comprehensive package of services, and coordination of services when services have to be provided elsewhere.
Figure 23. Danish E-Mail Contacts with Patients

Payment for telephone call from pt.: 25 DKR or $4
Payment for E-mail from/to pt.: 50 DKR or $8

Figure 24. Countries with a Single Unifying Organization Have Higher Rates of HIT

- Denmark
  - nonprofit organization, arms length from government
- New Zealand
  - a private company
- Scotland
  - the department of health

The lack of a unifying organization is seen to be a limiting factor in a number of countries

Culture and tradition; standards (e.g. communications); structured data (e.g. Read codes in England & Scotland, ICPC in Norway); and size may also be contributing factors

Figure 25. MedCom - The Danish Health Data Messages/Month

Size of the project:
• 2,000 German Hospitals (> 98%)
• 5,000 medical departments
• 3 Million cases in 2005
• 20% of all hospital cases in Germany
• 300 Quality indicators in 26 areas of care
• 800 experts involved (national and regional)

Ideas and goals:
→ define standards (evidence based, public)
→ define levels of acceptance
→ document processes, risks and results
→ present variation
→ start structured dialog
→ improve and check

Figure 27. Improvement:

Hamburg: Antibiotic Prophylaxes in Hip-Replacement.

2003: 95,6% → 2004: 98,5% → 2005: 99,3%

Figure 28. Disease Management Programs for Chronic Diseases in Germany

- Conditions:
  - Diabetes type I and II
  - COPD
  - CHD
  - Breast cancer

- Specific regulations for care targets, drugs, quality management and documentation

- 1.6 million enrolled patients (August 2006)

- Preliminary data show positive effects on quality

- Cost reductions unlikely

Figure 29. German Global Payment for Integrated Oncology: Key Elements

- Treatment according to evidence-based guidelines
- Detailed treatment pathways and standard operating procedures (SOPs)
  - Define multi-disciplinary cooperation
  - Assign responsibilities between hospital and office-based sectors
  - Avoid inconsistent or redundant medical procedures
- New cancer-specific quality indicators
- Innovative financing (1-year package, global fee)
  - Stage-adapted global fees for 12 months from diagnosis
  - Fees include diagnostics, surgery, radiotherapy, chemotherapy, follow up and palliative care
  - Additional payments for outliers (example: early relapse)
  - Remuneration of office-based physicians by the oncology center

Figure 30. Improve Quality Transparency: The Netherlands

- Collect comparative data: (quality indicators)
- Inspectorate examines care providers with different quality indicators
- Make quality differences visible through the internet

Figure 31. Primary Care Organization in Netherlands

- After hours care arrangements
  - Nurse and physician call banks
- Most are solo practices yet organized to support each other with nurse and doctor cooperative
- Integrated electronic medical records
- Widespread use of registries

Figure 32. UK: First Year Performance

- Practice by practice results for the Quality and Outcome Framework for England were published on August 31, 2005

- Average score for practices in England in the first year was 959 out of a possible 1050. The maximum score of 1,050 points was achieved by 222 practices (2.6%)

- 8,486 practices in England took part, covering 99.5% of NHS registered patients

- Some of higher performance may have been improved documentation

Source: http://www.ic.nhs.uk/services/qof/data/index_html
Figure 33. The UK’s National Institute for Health and Clinical Excellence (NICE): “Virtual” Institute

W. Andrew Owens
The James Cook University Hospital

About W. Andrew Owens
Specialties
Adult cardiac surgery
Adult thoracic surgery

Qualified
Queen’s University, Belfast, 1980

Trained
Royal Victoria Hospital, Belfast 1984-1986
Papworth Hospital, Cambridge, 1985-1986
Freeman Hospital, Newcastle upon Tyne, 1986-1990
St. Vincent’s Hospital, Sydney, Australia, 1991-1992
James Cook University Hospital, Middlesbrough 2001-2002
Freeman Hospital, Newcastle upon Tyne, 2002

Previous consulting posts
Royal Victoria Hospital, Belfast 1984-1986
Papworth Hospital, Cambridge, 1986-1996

Practice profile for the 3 years ending March 2005

- Total number of operations performed
- Isolated coronary bypass operations performed
- Isolated valve operations performed
- Combined and other operations performed

140

Address:
The James Cook University Hospital
Manton Road,
Middlesbrough,
TS4 3 BM

Tel: 030 7 899 988
Email: oowens@CTSnet.com
Webpage:

Survival rates after selected types of heart operation

How you can use this information
Patients who are going to have certain heart surgery may find it useful to look up survival rates for surgeons or units they are considering and discuss this information with their GP or their surgeon.

What it can’t tell you
Your own chances of surviving a heart operation.

Coronary artery bypass graft operations
Operations over 3 years ending March 2006

Survival rate: 99.1%
(Better than expected)

Expected survival rate: 93.1% - 96.9%

120 operations performed
Statistics calculated from all first time patients

Survival rates for all kinds of surgery
Operations over 3 years ending March 2006

Survival rate: 98.3%
(Better than expected)

Expected survival rate: 92.9% - 97.7%

140 operations performed
Statistics calculated from all first time patients

Figure 36. Take-Away Messages

• U.S. should assess innovations leading to high performance within the U.S. and internationally

• Universal health insurance is one key to improved access, quality, and efficiency

• Transparency and public reporting help identify high performance and spread best practices

• Strong primary care system with supporting information technology and health information exchange contributes to high performance

• Rewarding quality and efficiency realigns financial incentives
Thank You!

Stephen C. Schoenbaum, M.D., Executive Vice President and Executive Director, Commission on a High Performance Health System

Robin Osborn, Vice President, International Health Policy and Practice

Alyssa L. Holmgren, Research Associate

Visit us at www.cmwf.org