Comparative Health Care Systems.
Hurley, Chapter 11

Chris Auld
Economics 318

March 25, 2013
Health Care Systems.

- There are many different forms of health care financing and delivery in place in different countries.
  1. *Financing* from public or private sources.
  2. *Delivery* from public or private agents.
  3. Most systems involve some public and some private aspects of both delivery and financing.
Systems

1. **Traditional sickness.** e.g., Germany. Private insurance with state subsidies.
2. **National health insurance.** e.g., Canada. State provides single-payer health insurance.
3. **National health services.** e.g., U.K. State directly provides health care.
4. **Mixed.** Elements of any of the above (e.g., United States.)
Health Care Expenditures as a Fraction of GDP: Selected Countries

- Canada
- France
- Germany
- Japan
- United Kingdom
- United States
Chapter 22. Health care systems.

Examples of health systems
- U.K.
- Germany
- Canada
- U.S.

Comparing U.S. and Canada
Financing.

- Where do these enormous sums of money to finance health care come from?

- *Public* funding sources include taxation, tax expenditures (e.g., not taxing employer-provided health benefits, and mandatory contributions through social insurance.

- *Private* funding sources include private insurance premiums (e.g., Blue Cross), out-of-pocket spending, and charitable donations.
Tax-induced distortions.

- We have seen that there are reasons why public provision or subsidization of some care is welfare-improving.
- But: raising funds reduces welfare.
- e.g.: income taxes create a deadweight loss (graph).
Equity in finance.

- Financing systems may be regressive, proportional, or progressive.
- Let $C$ denote contributions and $Y$ income.
  - Progressive: $(C/Y)$ is increasing in $Y$.
  - Proportional: $(C/Y)$ is constant in $Y$.
  - Regressive: $(C/Y)$ is decreasing in $Y$. 
Equity cont.

- Broadly speaking, personal income taxes are progressive, consumption taxes regressive, and tax revenue overall roughly proportional.
- Private financing tends to be regressive.
- Overall, financing in Canada is very roughly proportional.
- But: health benefits tend to accrue more to poor people.
The value of health care services used is higher among those who are institutionalized ("Inst") and low-income households (e.g., decile 1) than among high-income households (decile 10). In contrast, tax payment increase with income. As a consequence, on net those of low income (and especially those who are institutionalized "Inst") receive more in benefits than they pay in taxes.
United Kingdom

- Parallel public and private systems.
- Public: NHS. Health care provided directly by the state. GPs paid by capitation (lump sum per patient under their care, regardless of services actually provided).
- About 11% of the population buys private insurance.
- Spending is lower than in the U.S. or Canada because of rationing.
Germany.

- All workers are mandated to have health insurance (why?)
- Can choose state-provided (87%) private (10%) and other (e.g. military).
- "Sickness groups" (insurance pools) contract directly with providers.
- Modest, but not trivial, payments from patients for care, e.g., 10 euro to visit a dentist, 10% of prescription drug costs.
Canada.

- Universal coverage (why?), no marginal payments for care, funding through complex provincial/federal arrangements.
- Patients can select providers.
- For the most part, pharmaceuticals and dental services not covered (30% of spending).
- GPs act as gatekeepers (cannot see a specialist without a referral from a GP)
- Hospitals are not-for-profit firms.
Canada cont.

- Physicians are mostly private for-profit “firms” paid by fee-for-service according to province-specific fee schedules, although many are now paid by salary or capitation.

- As of 2007, roughly 50% of Canadian physicians received their income almost entirely from fee for service. About 30% received most of their income from capitation, salary, or some combination of payment schemes.
Health care is nominally a provincial matter, but in order to qualify for federal funds provinces must abide by the Canada Health Act.

CHA requires public administration of health care, comprehensive coverage for “medically necessary” services, universality (everyone nominally gets same coverage), portability, and accessibility.

No extra billing: providers are forbidden to bill the state and also “top up” with payment from patients.
Aside on a parallel private system in Canada.

- Analysts often suggest that the law ought to allow for a parallel private system.
- e.g., allow Canadians to purchase private insurance for publicly funded treatments, and let them choose on a case by case basis which system to contact.
- The introduction of such a system would affect the current public system, although research conflicts over what the effects would be.
- Area of active research.
U.S. system.

- Very complicated! Not (even remotely) accurate to describe as “free market,” although there are more market mechanisms in place than in other Western countries.
- Very expensive! 16% of GDP, and the U.S. has high GDP.
- Private insurance usually provided by employers.
医保：为老年人提供普遍保险。复杂，有多种不同的计划供人们选择。
▶ 大约涉及4400万人。
▶ 医保支付给提供者使用复杂的公式，旨在捕捉治疗具有给定可观察特性的患者的成本（DRG，诊断相关组）。

U.S. system cont.

- **Medicare**: universal insurance for the elderly. Complex, with multiple different plans people can opt in to.
- On the order of 44 million covered.
- Medicare reimburses providers using complex formulas intended to capture how much it costs to treat a patient with given observable characteristics (DRG, diagnostic related group).
U.S. cont.

- **Medicaid**: public provision of insurance to the poor.
- On the order of 60 million people covered.
- Does not cover “poor” people generally, must meet complex requirements. In effect, poor families with small children and single-parent families likely to be covered.
Chapter 22. Health care systems.

Examples of health systems

U.K.

Germany

Canada

U.S.

Comparing U.S. and Canada

Figure 1
Trends in the U.S. healthcare system (public and private)

*2004 data
Source: OECD health data, 2005
The uninsured.

► At any given time, roughly 50,000,000 Americans have no health care insurance.
► This does not mean they do not have access to health care.
► Who is in this group changes over time as people gain or lose insurance.
► Problems: people may be deterred from getting care due to high expenses, and the expense when people choose to receive care may be a catastrophic burden.
U.S. cont.

- Medicare/Medicaid are very expensive. At exchange rates which held a few years ago U.S. *public* expenditures per person were higher than Canadian!
- Effective? Difficult to measure.
- RAND Health Insurance Experiment should lead us to question effect on health.
- Some studies suggest that these programs have improved health through improved access to care, at least in some dimensions (e.g., infant mortality), but often not cost-effective.
Comparing Canada and the U.S.

- Canada is less expensive, and tends to ration more through waiting times than through prices.
- Both countries have mixed public/private provision of care. The U.S. system is substantially more expensive, but Canada’s system looks cheap only relative to the U.S., not most other countries.
- Why is the U.S. system more expensive?
Why is the U.S. more expensive?

- We can always write: total costs = (average cost per service) * (number of services)
- What primarily drives differences, number of services or cost per service?
- Overwhelmingly, the data tell us that it is cost per service differences which drive total cost differences. U.S. residents consume slightly fewer services on average than Canadians.
Why is the average cost of a service higher in the U.S.?

A moderate part of the difference (about $500 per capita per year) can be attributed to lower administrative costs in Canada. We don’t have the mess of insurance companies, HMOs, and patchwork legislation.

“It’s the price, stupid.” Simply, the U.S. system is more expensive because everything costs more.

Why are prices different? In part because governments in Canada act as monopsonists.
## Exhibit 4

Physician Capacity, Earnings, And Spending In Six Countries, 2008

<table>
<thead>
<tr>
<th>Country</th>
<th>Density per 10,000</th>
<th>Density relative to US</th>
<th>Pretax earnings net of expenses (US$ 2008)</th>
<th>Earnings relative to US</th>
<th>Payments to MDs per 1,000 ($)</th>
<th>Payments to MDs relative to US</th>
<th>Primary care MD earnings relative to orthopedic surgeons (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary Care Physicians</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>14</td>
<td>1.4</td>
<td>92,844</td>
<td>0.50</td>
<td>129,982</td>
<td>0.70</td>
<td>49</td>
</tr>
<tr>
<td>Canada</td>
<td>10</td>
<td>1.0</td>
<td>125,104</td>
<td>0.67</td>
<td>125,104</td>
<td>0.67</td>
<td>60</td>
</tr>
<tr>
<td>France</td>
<td>17</td>
<td>1.7</td>
<td>95,585</td>
<td>0.51</td>
<td>162,494</td>
<td>0.87</td>
<td>62</td>
</tr>
<tr>
<td>Germany</td>
<td>10</td>
<td>1.0</td>
<td>131,809</td>
<td>0.71</td>
<td>131,809</td>
<td>0.71</td>
<td>65</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>7</td>
<td>0.7</td>
<td>159,532</td>
<td>0.86</td>
<td>111,672</td>
<td>0.60</td>
<td>49</td>
</tr>
<tr>
<td>United States</td>
<td>10</td>
<td>1.0</td>
<td>186,582</td>
<td>1.00</td>
<td>186,582</td>
<td>1.00</td>
<td>42</td>
</tr>
<tr>
<td><strong>Orthopedic Surgeons</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>0.45</td>
<td>0.68</td>
<td>187,609</td>
<td>0.42</td>
<td>8,442</td>
<td>0.29</td>
<td>—</td>
</tr>
<tr>
<td>Canada</td>
<td>0.32</td>
<td>0.48</td>
<td>208,634</td>
<td>0.47</td>
<td>6,676</td>
<td>0.23</td>
<td>—</td>
</tr>
<tr>
<td>France</td>
<td>0.34</td>
<td>0.52</td>
<td>154,380</td>
<td>0.35</td>
<td>5,249</td>
<td>0.18</td>
<td>—</td>
</tr>
<tr>
<td>Germany</td>
<td>0.44</td>
<td>0.67</td>
<td>202,771</td>
<td>0.46</td>
<td>8,922</td>
<td>0.31</td>
<td>—</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0.28</td>
<td>0.42</td>
<td>324,138</td>
<td>0.73</td>
<td>9,076</td>
<td>0.31</td>
<td>—</td>
</tr>
<tr>
<td>United States</td>
<td>0.66</td>
<td>1.00</td>
<td>442,450</td>
<td>1.00</td>
<td>29,202</td>
<td>1.00</td>
<td>—</td>
</tr>
</tbody>
</table>

**Source**: See the Appendix. To access the Appendix, click on the Appendix link in the box to the right of the article online. **Notes**: Physician income per 1,000 people was calculated as density multiplied by earnings = (column 2)(column 4)/10. All earnings figures were converted to US dollars and adjusted for purchasing power parity and then converted to 2008 dollars using the US Consumer Price Index. Data on the density of primary care physicians are from the 2008 Organization for Economic Cooperation and Development database. *Not applicable.
Why does stuff cost more? It could be because Americans get higher-tech care. That does explain part of the difference, e.g., several times as many MRI machines in the U.S. than Canada.

Most of the difference is at the end of the day due to differences in wages. Health care providers, particularly physicians, are paid much more in the U.S. than in Canada.

Monopoly power again?
Chapter 22. Health care systems.

Examples of health care systems

U.K.

Germany

Canada

U.S.

Comparing U.S. and Canada

“Obamacare.”

► *Patient Protection and Affordable Care Act*, 2010.

► Supreme court recently affirms mandatory mandate Constitutional (Nov 2012).

► Restricts insurers ability to vary premiums with apparent risk, e.g., pre-existing conditions.

► Requires people to buy coverage if they don’t get it from employers or Medicaid/Medicare.

► Expands Medicaid (subsidies for poorer people) coverage.

► Implements new taxes on higher earners and insurance firms.