Why is U.S. healthcare spending so high?
What we can and can’t learn from international comparisons

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Agenda

- We spend a lot on healthcare
- Why do we spend so much more than others?
- Tradeoffs: what does our higher spending give us?
- What about quality and outcomes?
- How do we think about value in the international context?
- States as laboratories of innovation
US healthcare spending
Total healthcare spending, 2016

<table>
<thead>
<tr>
<th>Country</th>
<th>Spending as a % of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>17.8</td>
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<tr>
<td>UK</td>
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<td>JP</td>
<td>10.9</td>
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<td>AU</td>
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</tbody>
</table>
Why?
Why so much more?
Health Care Spending in the United States and Other High-Income Countries

Irene Papanicolas, PhD; Liana R. Woskie, MSc; Ashish K. Jha, MD, MPH

**IMPORTANCE** Health care spending in the United States is a major concern and is higher than in other high-income countries, but there is little evidence that efforts to reform US health care delivery have had a meaningful influence on controlling health care spending and costs.

**OBJECTIVE** To compare potential drivers of spending, such as structural capacity and utilization, in the United States with those of 10 of the highest-income countries (United Kingdom, Canada, Germany, Australia, Japan, Sweden, France, the Netherlands, Switzerland,
Comparing healthcare spending

- Our approach:
  - Compared US to 10 other very high income countries
  - Data source: mostly OECD, some CMWF
  - Data verified by national statistics offices and/or experts
Why so much *more*?
Total Spending = Quantity X Price
Hypothesis #1
“Our culture of overuse”
Total Spending = \textbf{Quantity} \times \text{Price}
Overutilization #1

“We are quick to go to the doctor”
Physician visits per capita in a given year

- JA: 12.7
- DE: 10
- NL: 8.2
- CN: 7.7
- AU: 7.6
- Mean: 6.6
- FR: 6.4
- UK: 5
- DN: 4.3
- US: 4
- CH: 3.9
- SE: 2.9

Doctor visits
Overutilization #2

Not enough prevention and primary care leads to too many hospitalizations
Hospital discharges

We spend far fewer days in the hospital
Overutilization #3

We use too many tests and procedures*
MRI examinations

Examinations per 1,000 population

- DE: 131
- US: 118
- JA: 112
- FR: 105
- DN: 82
- CH: 70
- CN: 56
- UK: 53
- NL: 52
- AU: 41

Mean: 82
Total knee replacement

Replacement per 100,000 population

- US: 226
- DE: 190
- AU: 180
- CH: 176
- DN: 168
- CN: 166
- Mean: 163
- FR: 145
- UK: 141
- SE: 124
- NL: 118
Total hip replacement

Replacement per 100,000 population

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<td>171</td>
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<tr>
<td>CN</td>
<td>136</td>
</tr>
<tr>
<td>JA</td>
<td>90</td>
</tr>
</tbody>
</table>
Coronary angioplasty

Procedures per 100,000 population

DE 393
US 248
NL 248
FR 237
Mean 217
SE 205
JA 193
DK 190
AU 172
CN 157
UK 128
Hypothesis #1 Update

- Higher US costs not primarily about providing more care
- We have fewer hospitalizations, doctor visits

Tests and Procedures a mixed bag:
- We do a lot more MRIs, TKRs, and PTCAs
- We do fewer hip replacements

Bottom line:
- We’re above average on some things
- We’re below average on other things
- On average, we are pretty average
Hypothesis #2
Specialist driven
Not enough primary care
Primary care as % of MDs

FR: 54%
CH: 48%
CN: 48%
NL: 47%
UK: 45%
DE: 45%
AU: 45%
US: 43%
Mean: 43%
JA: 43%
SE: 33%
DK: 22%
Hypothesis #2 Update

- It’s (surprisingly) not about PC vs. specialty mix
OK – so what is it?
Why so much *more*?
Hypothesis #3
Administrative waste
Governance, administrative spending

Percentage of healthcare spending

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<th>Country</th>
<th>Percentage</th>
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<td>US</td>
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<td>5%</td>
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<td>FR</td>
<td>1%</td>
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<tr>
<td>JA</td>
<td>1%</td>
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</tbody>
</table>
Hypothesis #3 Update

- U.S. administrative spending is higher than other countries
- Higher even than countries that have largely private systems
- But that’s only part of the story.....
Total Spending = Quantity \times \text{Price}
Hypothesis #4
Prices of what?
Pharmaceuticals!
Total Spending (USD Per Capita)
Crestor Price

- US: $86
- DE: $41
- CN: $32
- JA: $29
- UK: $26
- FR: $20
- AU: $9

Mean: $35
Humira Price

Humira Price (USD)

- US: $2,505
- DE: $1,749
- Mean: $1,436
- AU: $1,243
- CN: $1,164
- UK: $1,158
- FR: $982
- JA: $980
Pharma makes up about 15% of all HC spending
So that can’t be the whole story
Generalist Physician Salaries

- US: $218K
- DE: $154K
- CN: $146K
- UK: $134K
- JA: $133K
- FR: $124K
- NL: $121K
- AU: $109K
- SE: $86K

Mean: $134K
Specialist Physician Salaries
Nurse Salaries

- **US**: $74K
- **NL**: $65K
- **AU**: $64K
- **DN**: $58K
- **CN**: $55K
- **DE**: $53K
- **Mean**: $51K
- **UK**: $49K
- **JA**: $44K
- **FR**: $42K
Salaries are complicated
Physician salaries

- Debt
- Length of training
- Opportunity cost in the U.S.
What about other stuff?
CT Scan Abdomen

International Federation of Health Plans 2015
Appendectomy

International Federation of Health Plans 2015
Bypass Surgery

International Federation of Health Plans 2015
High prices have tradeoffs
Pharmaceutical Innovation

New Chemical Entities

US: 111
CH: 26
JA: 18
UK: 16
DE: 12
FR: 11
Other benefits of higher prices

- High-quality doctors and nurses
- Faster access to diagnostics and procedures
- Nicer amenities and facilities
What about health outcomes?
Life expectancy, years

- Japan (JA): 83.9
- Switzerland (CH): 83
- Australia (AU): 82.5
- France (FR): 82.4
- Sweden (SE): 82.3
- Mean: 81.7
- China (CN): 81.7
- Netherlands (NL): 81.6
- United Kingdom (UK): 81
- Denmark (DK): 80.8
- Germany (DE): 80.7
- United States (US): 78.8
<table>
<thead>
<tr>
<th>Country</th>
<th>Life Expectancy</th>
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<td>JA</td>
<td>83.9</td>
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<tr>
<td>DE</td>
<td>80.7</td>
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</table>
Neonatal mortality

Deaths per 1,000 live births

US: 4
CN: 3.2
CH: 3.1
DK: 3
UK: 2.7
Mean: 2.6
FR: 2.6
NL: 2.5
DE: 2.3
AU: 2.3
SE: 1.7
JA: 0.9
Neonatal mortality given LBW

Deaths per 1,000 live births:

- DK: 2.09
- NL: 1.96
- UK: 1.77
- Mean: 1.7
- CD: 1.63
- US: 1.61
- DE: 1.49
Breast cancer screening

% of women age 50-69

DK: 84%
US: 81%
NL: 79%
UK: 76%
SE: 75%
CN: 72%
DE: 71%
Mean: 67%
AU: 55%
FR: 52%
CH: 47%
JA: 41%
30-day stroke mortality

<table>
<thead>
<tr>
<th>Country</th>
<th>30-day mortality per 1,000 patients</th>
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<tbody>
<tr>
<td>CN</td>
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<tr>
<td>US</td>
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Summary

- High cost healthcare system
  - Driven primarily by administrative costs, prices
- Health outcomes for the population are worse
  - But if you were to get sick, good system to do it
National reforms: ACA and Beyond
Total Spending = \textbf{Quantity} \times \text{Price}
Based on belief that we do too much

- “Value-based” payments for hospitals (VBP, HRRP, etc.) and docs
  - Largely hasn’t done much

- Accountability and changing the “episode” of payment (ACOs, BP)
  - Bit more reason for optimism (savings of 2-4%)
  - Unclear about its scalability/growth
Where is the action going to be?
States!
What does state-based reform look like?

- Maryland’s All-Payer Model
  - Hospitals operate on a global budget
  - Hospital revenue for all payers set in the beginning of the year
  - Created target for per capita hospital revenue growth

- Massachusetts Health Policy Commission
  - Created target for healthcare spending growth
  - Encourages movement away from FFS model and toward alternative payment models (ACOs, Medicaid APM)
What does state-based reform look like?

- **Vermont All-Payer Accountable Care Organization Model Agreement**
  - Goal is to attribute 70% of all VT insured residents to an ACO
  - Has set an all-payer growth target and a Medicare growth target

- **Arkansas Health Care Payment Reform Improvement Initiative**
  - Two strategies:
    1) Increase number of patients in patient-centered medical homes
    2) Episode-based payments for those with multiple encounters with health system

- **Oregon’s Alternative Payment and Advanced Care Model**
  - Shift Medicaid reimbursement for Community Health Centers to PMPM
  - Better integrate behavioral health services and increase focus on social determinants
What are states doing?

- 40 states were pursuing value-based payment models in 2019
  - 15 of those states have multi-payer initiatives

- 17 states have adopted or are considering adoption of ACOs

- 12 states have adopted or are considering adoption of episodes of care programs

- CMS’s State Innovation Models initiatives

- Most states participating in the “Money Follows the Person” program for Medicaid patients to reduce nursing facility stays
States tiptoeing into price regulation

- California policy on out-of-network provider charges (max 125% of Medicare)
- RI policy: Hospital rate and ACO budget growth caps (commercial)
  - Considering a cost growth target
- Vermont with an all-payer growth target
- West Virginia has a partial rate-setting system for privately insured patients
- Pennsylvania is piloting an all-payer global budget for rural hospitals
What can we learn from states?

- States are laboratories of innovation
- This is even more true in the era of divided government
- What works for one state may not work for others
- We can create a uniquely American solution
  - States will be leading the way
Thank you!
% Spending on Inpatient Care

- NL: 32%
- AU: 31%
- FR: 30%
- CH: 28%
- DN: 28%
- DE: 27%
- JA: 27%
- Mean: 26%
- UK: 24%
- SE: 21%
- US: 19%
% Spending on Outpatient Care

<table>
<thead>
<tr>
<th>Country</th>
<th>% of Health Expenditure Attributable to Outpatient Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>42%</td>
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<tr>
<td>AU</td>
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<tr>
<td>CN</td>
<td>36%</td>
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<tr>
<td>DN</td>
<td>34%</td>
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<td>CH</td>
<td>33%</td>
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<td>SE</td>
<td>31%</td>
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<tr>
<td>Mean</td>
<td>31%</td>
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<td>UK</td>
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<td>FR</td>
<td>23%</td>
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<tr>
<td>NL</td>
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Per capita spending for Ages 65+

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<td>$10,427</td>
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<td>JP</td>
<td>$9,774</td>
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Physicians per 1,000 population