Physician Incentives and Health Care Delivery in the U.S.

Erin Johnson

Research Scientist
The Wellesley Centers for Women
Wellesley College
ejohns17@wellesley.edu

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- And the impact of those choices on markets
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Some key principles

- All choices involve tradeoffs - “no free lunch”
- Rational people think on the margin
- “People respond to incentives. The rest is commentary”
Why study physicians?

Physicians make important decisions

- Health care is 18.2% of GDP
- Allocation of care across patients
- Life-altering consequences for patients
Physicians are human experts

Physicians as experts

- Physicians have more information than patients
- Gold standard: make the decision the patient would make if they were fully informed

96% percent of physicians agree with the statement: “Physicians should put the patients welfare above the physicians financial interests” (Campbell et al. 2007)
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Physicians as humans: physicians respond to private incentives
- Financial incentives
- Malpractice concerns
- Convenience factors / effort

Physicians as humans: physicians aren’t perfect
- Different beliefs
- Different skill
Considerable Geographic Variation in Costs

Source: Medicare spending per capita, Dartmouth Atlas of Health Care (www.dartmouthatlas.org)

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Today

Physicians’ response to **financial incentives**

Patients’ response to **physician quality**

The **physician-patient relationship** and treatment
Concerns about the U.S. C-section Rate

High levels and considerable variation
- Variation across states: 22% to 38%
- Variation across hospitals: 16% to 62% (in CA)
- Variation across MDs within markets (Epstein and Nicholson (2009))

Not explained by patient observables
- Clinical / demographic factors (Baicker, Buckles & Chandra (2005), Kozhimannil et al. (2013))
- Mortality / morbidity gains

"What we’re worried about is the caesarean section rate is going up, but we’re not improving the health of babies being delivered or of moms”

-Dr. Macones, Chair of OB, ACOG Spokesman (NY Times, 2010)
Evidence on financial incentives

Vary the desire to overtreat
  - Shocks to provider incomes, e.g. Gruber and Owings (1996)
  - Fee changes, e.g. Jacobsen et al. (2010)

Vary the ability to over treat
  - Patient information: e.g., Ubel et al. (2011)

What We Do: Merge Two Strands

Compare C-section Rates for MD and non-MD Moms

- Control for demographic and clinical factors
- Vary information and incentives together to gain insights into mechanisms
- Look at treatment intensity and health outcomes
Results

Physician mothers 7% less likely to get a C-section
- The effect is almost entirely for unscheduled C-sections (11%)
- Hospital choice accounts for 21% of the effect
- Similar results in California and Texas

Considerable heterogeneity across incentive environments
- Patients less likely to get C-sections inside HMO-owned hospitals
- Doctors appear largely unaffected by the incentive environment

Physician mothers have lower morbidity and their infants do at least as well
Interventions and policy responses

Reform physician payment systems

Information interventions

- Webmd / mayoclinic.com
- Required second opinions, gatekeeping
- Published treatment rates
- Portable electronic health records
Physician Quality and Patient Information

Can patients judge quality?

- Hospitals: Gaynor, Propper & Seiler (2012)

Current information interventions

- Hospital report cards (Cutler, Huckman and Landrum (2004), Dranove et al. (2003), Fong (2012))
- Physician report cards (Kolstad (2014))
The paper

Ability, Learning and the Career Path of Cardiac Specialists (2014)

Compare careers of higher and lower quality specialists over 10 years

- All interventional cardiologists and cardiothoracic surgeons in the U.S.
- Number of Medicare referrals over time
Results

Evidence is consistent with some learning by patients and PCPs

- Lower quality doctors are more likely to drop out and move
- Patients sort to specialists on risk characteristics
- But similar referrals for doctors staying in practice

Policy implication: more external oversight, consumer protection needed than in more competitive markets

- Lower access costs, increase awareness of quality measures
- Address distributional concerns
- Online physician directories, combined content
Physician-patient relationships and treatment

When patients are treated by physicians they know:

- Satisfaction is higher (Mager and Andrykowski 2002)
- They are more likely to adhere to treatment (Kim, Kaplowitz and Johnston 2004)
- They are less likely to sue after adverse events (Levinson et al 1997)

Individuals are willing to pay substantially more for health insurance to keep “their” physicians (Dahl and Forbes, 2016)

Exploit a natural experiment to isolate the effect of the physician-patient relationship on clinical decisions

- Patients giving birth are randomly assigned to their prenatal provider or another OB from the group
- Hospital, nurses, providers, specialization in birth and patients’ clinical needs are all held constant

Part 1: What is the effect of knowing the patient on OB decisions?

Part 2: What is the mechanism?

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The relationship matters a lot for treatment

- Patients delivered by their own OB are 25% more likely to receive a C-section
- The additional C-sections for own patients appear to occur after the OB experiences a string of difficult labors
- On observable measures mothers delivered by their own OBs have fewer in-patient complications and their infants appear no worse off
Interventions and policy response

“Empathy? Yeah, I can see how that could be useful.”
Future research: unpacking practice style

What is driving variation in treatment across physicians other than financial incentives?

Additionally:
- What is the impact of practice style on patients?
- Team production in labor and delivery
- The physician-patient relationship and patient trust