A Changing Industry

Persistent Opportunities in Healthcare

Overview of the US Healthcare System: Costs

- Most expensive, both as a % of GDP and per-capita, health care system in the OECD
  - 17% of GDP in 2015 (18% in 2016). OECD Median (excluding US) is 9%
  - $10,000 per capita (2016). This is more than double the OECD average and > $1,000 more than the next most expensive (Switzerland)

Sources: Organization for Economic Co-Operation and Development (OECD), Kaiser Family Foundation, The Commonwealth Fund.

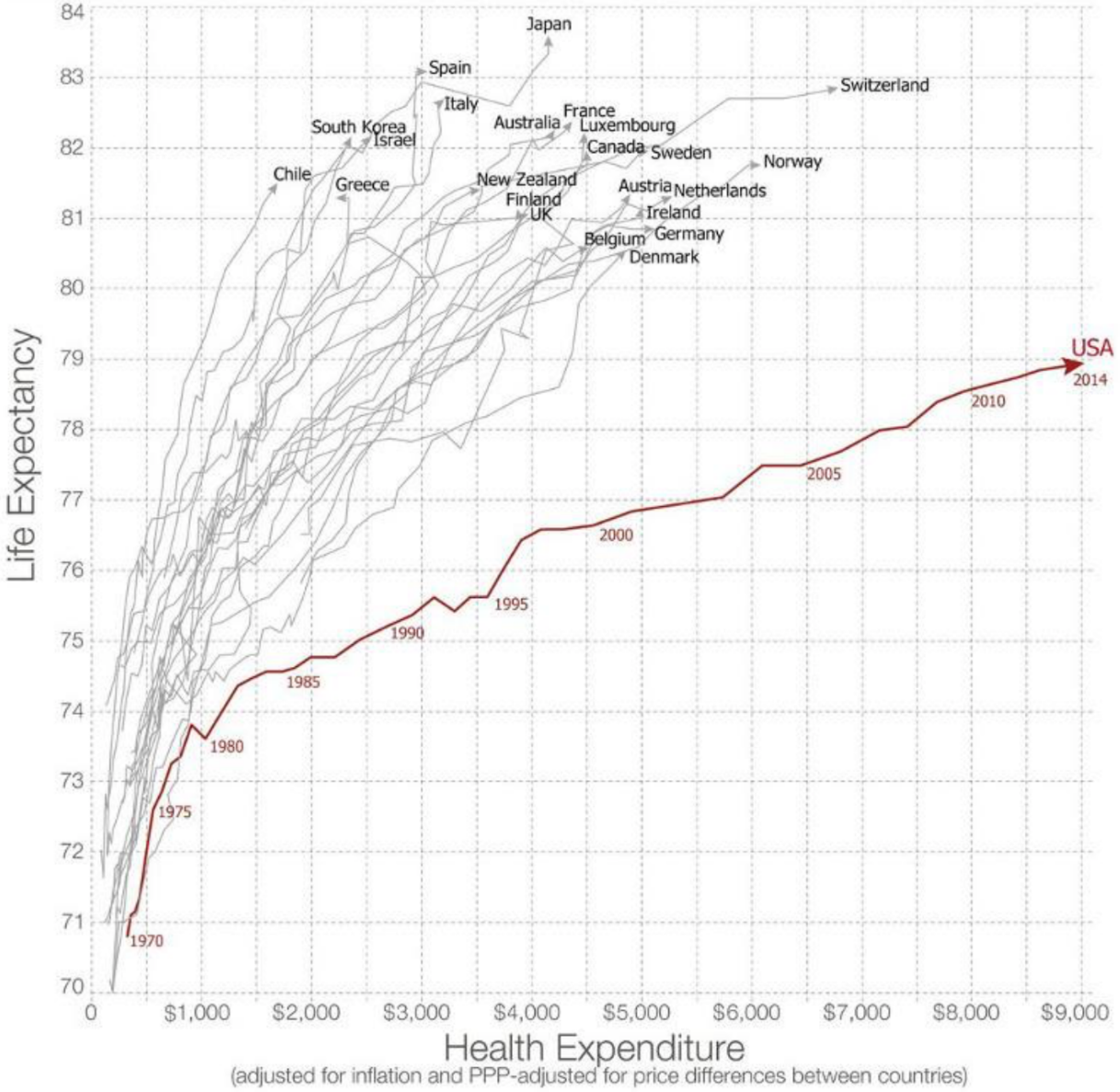
Overview of US Healthcare System: Outcomes

- Worst performing health care system by outcomes. Particularly:
  - Life expectancy
  - Diabetes
  - Ischemic heart disease
  - All other chronic disease management
  - (Cancer care is the one area in which US system is slightly ahead of OECD peers in outcomes)
- Worst performing health care system by patient satisfaction
  - Citizens of all other OECD countries report high satisfaction with their health care system
  - US Citizen satisfaction with our health care system is low

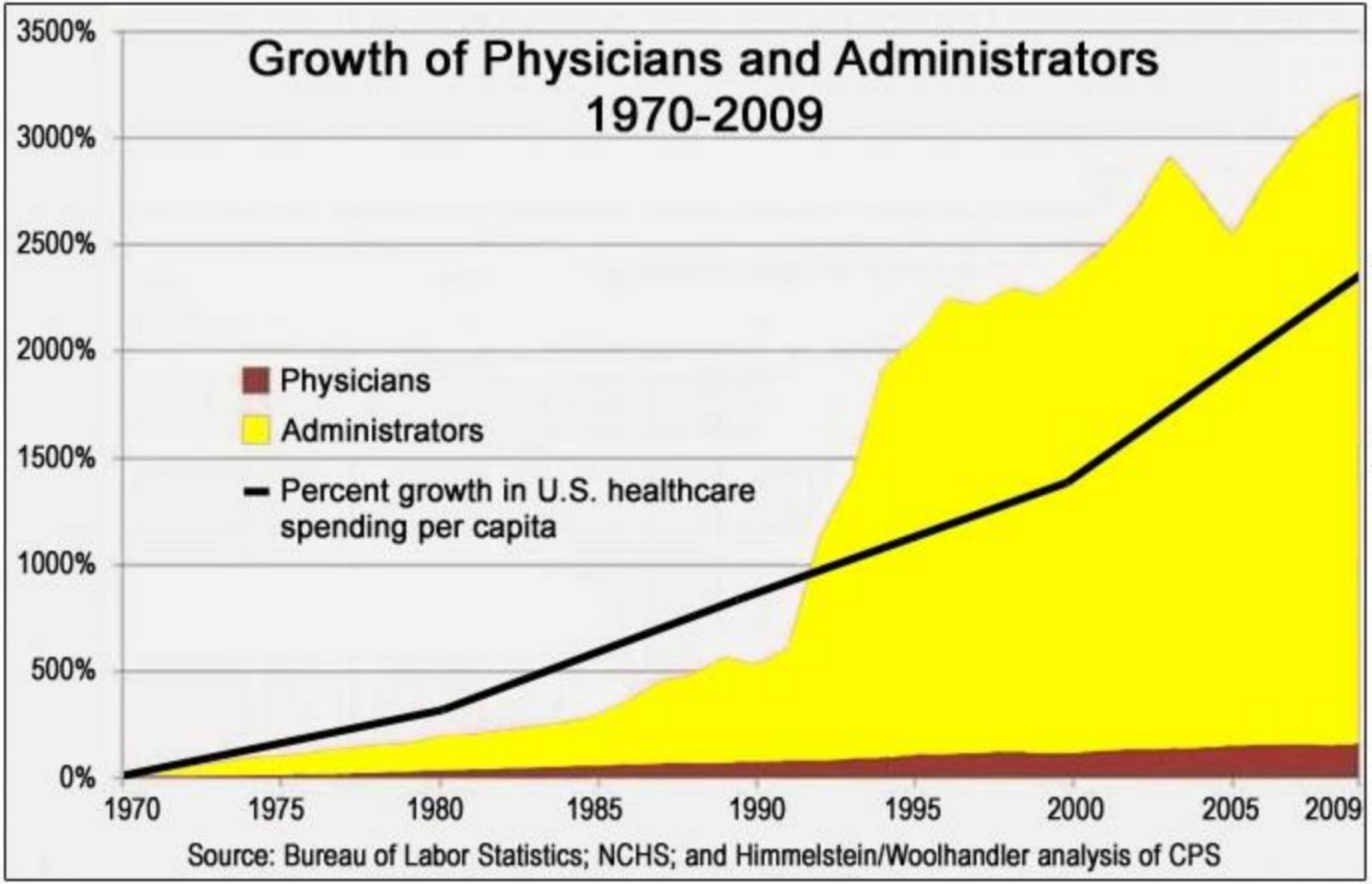
Life expectancy vs. health expenditure over time (1970-2014)

Our World in Data

Health spending measures the consumption of health care goods and services, including personal health care (curative care, rehabilitative care, long-term care, ancillary services and medical goods) and collective services (prevention and public health services as well as health administration), but excluding spending on investments. Shown is total health expenditure (financed by public and private sources).



Data source: Health expenditure from the OECD; Life expectancy from the World Bank
The interactive data visualization is available at OurWorldinData.org. There you find the raw data and more visualizations on this topic.


Growth of Physicians and Administrators
1970-2009
3500%
3000%
2500%
2000%
1500%
1000%
500%
0%
Physicians
Administrators
Percent growth in U.S. healthcare spending per capita
1970
1975
1980
1985
1990
1995
2000
2005
2009
Source: Bureau of Labor Statistics; NCHS; and Himmelstein/Woolhandler analysis of CPS

Administrative Costs

- In 2011, the Center for Justice and Democracy calculated that the state of New York could save Medicaid $213 million dollars a year if non-profit hospital administrator's salaries were capped at $250,000 a year.
  - $250,000 was not arbitrary, it was the same amount by which the non-profit hospitals were lobbying the state to cap malpractice awards as a way to cut state Medicaid costs.
- The salary cap did not make it through the committee. The malpractice award limits, did.

The US system is unique: Payers

- United States is only OECD member without universal single-payer
  - Lacks the monopsony power that single-payer systems exhibit, thus difficult to control prices
    - Cost of care single greatest driver of differences in per-capita costs in the US. "It's the prices, stupid"
  - Complex, byzantine, networks of payers creates enormous administrative overhead costs which are reflected in health care costs

“Fifty hospitals in the United States are charging uninsured consumers more than 10 times the actual cost of patient care, according to research published Monday. … “They are price-gouging because they can,” said Gerard Anderson, a professor at the Johns Hopkins Bloomberg School of Public Health, co-author of the study in Health Affairs. “They are marking up the prices because no one is telling them they can’t.” … By comparison, the researchers said, a typical U.S. hospital charges 3.4 times the cost of patient care.”

https://www.washingtonpost.com/national/health-science/why-some-hospitals-can-get-away-with-price-gouging-patients-study-finds/2015/06/08/b7f5118c-0aeb-11e5-9e39-0db921c47b93_story.html

US system is unique: Public/Private

- US funds 56% of its health care system from private sources. Vs. OECD median of 26%.
- US consumes 7.2% of US GDP via private financing. Vs. OECD median of 2%

The US system is unique: Medical Equipment

- United States spends far more on medical equipment and pharmaceuticals than other OECD countries
  - Particularly medical imaging devices
    - Poor relationship between availability of imaging technology and outcomes

The US system is unique: Social Care

- US devotes smallest share of GDP to social services: 9%. OECD average is 16%
- US is only country in which health care spending is greater share of GDP than social services spending
- Result: Poorest population health outcomes in OECD
  - Non-obese, Non-smoking Americans are in worse health than their counterparts in rest of OECD
  - “Maybe We Could Have Bought Him a Good Pair of Shoes”: Why Peer Nations Spend Less on Health Care but Stay Healthier

Compared to OECD: Summary

- US spends least amount on social care (population health)
- US spends most on pharmaceuticals. High utilization & spending
- US spends most on medical equipment. Wide proliferation of diagnostic imaging at high prices and poor outcomes
- High number of hospital admissions for chronic conditions
- US Hospitals are more expensive and less efficient
- US providers charge the most over their costs ("rents")
- Higher utilization of expensive and sophisticated procedures (coronary angioplasties, kidney dialysis) with little regard to outcomes or necessities of the procedures
- Lack of monopsony power on the payer side due to lack of single-payer system
  - Administrative costs of remuneration far higher in US

Legacy: Payment for Services

- US system has traditionally been based on a "payment for services" remuneration model
  - Providers get paid for "doing stuff," irrespective of the connection to outcomes
- Institutional Incentive: Money is made when people are sick

Future: Payment for Outcomes

- Payers are changing provider reimbursement model from payment-for-service to payment-for-outcome
  - Federal Government (largest payer in United States) is leading this via outcome incentives and penalties in Medicare. Meaningful Use.
  - Also creation of Accountable Care Organizations (ACOs)
- Key points: Outcome-based reimbursement and population actuarials (capitation models)
- Institutional incentives reverse: Money is made when people are healthy, not sick.

Legacy: Costs

- Payment-for-services distorts market incentives, raises prices, and lowers outcomes. It incentivizes sickness.
- Top-level points of pain under payment-for-services:
  - Drags on Productivity: (5% of waste in healthcare)
    - Production-level waste, case-level waste, and population-level waste
  - Unnecessary Redundancy (50% of waste in healthcare)
    - Redundant testing, supportive medications, services rendered that were not requested, etc.
  - Lack of proactive prevention (45+% of waste in healthcare)
    - Hospitalization for chronic conditions, lack of social services (“new shoes”), lack of actionable intelligence

Future: Opportunity

- Payment-for-outcome rewards providers for increased population health and increased patient satisfaction. It incentivizes wellness.
- Top-level opportunities under payment-for-outcome:
  - Patient Relationship Management (CRM)
  - Population health actuarials and forecasting
  - Proactive intervention earlier in process
  - Delivery of social services as effective health care
  - Chronic disease management
    - Transitions of care
  - Longitudinal view of patient's health, social, family, occupational, etc.

The Triple Aim

- Improve the individual experience of care
- Improve the health of populations
- Reduce the per-capita cost of care for populations

To visit IU Health, the largest health care provider in Indiana, with 15 hospitals and 8,700 doctors, is to see those changes up close. Its leaders have started moving away from fee-for-service medicine, where every procedure, examination and prescription fetches a price. The emphasis now is on preventive care, on taking responsibility for the health of patients not only in the hospital, but also in the community.

Social work has become a larger part of the medical mission. Collaboration between doctors is becoming a necessity.

> ***[T]he transformation of American health care that has occurred over the last eight years — touching every aspect of the system, down to a knee replacement in the nation's heartland — has a momentum that could prove impossible to stop.***

http://www.nytimes.com/2017/01/02/us/politics/obama-health-care-affordable-care-act.html

The Triple Aim

Legacy

- Address Waste:
  - Low Productivity
  - Unnecessary Redundancy
  - Lack of prevention

Future

- Enable Effective Health Care:
  - Patient Satisfaction
  - Population Health
  - Risk Management
  - Longitudinal View
  - Proactivity
  - Social Services
  - Treatment of Chronic Conditions
  - Marketing

The Audience

- Who are we selling to in health care?
  - Chief Financial Officers (CFOs)
  - Chief Marketing Officers (CMOs)
  - Chief Transformation/Change Officers (CTOs)
  - Chief Executive Officers (CEOs)
- Who are we not selling to in health care?
  - Chief Information Officers (CIOs)

The Message

- Fundamental Message we should be sending is that quality and cost are not antagonistic.
- Business Process Reinvention for Healthcare involves transition from low-quality, high-cost payment-for-service to high-quality, low-cost payment-for-outcome
- Watch out for:
  - Fear of unknown/change
  - Culture Trumping Strategy

Deming's Total Quality Management

- **Create constancy of purpose for improving products and services.**
- **Adopt the new philosophy.**
- **Cease dependence on inspection to achieve quality.**
- **End the practice of awarding business on price alone; instead, minimize total cost by working with a single supplier.**
- **Improve constantly and forever every process for planning, production and service.**
- **Institute training on the job.**
- **Adopt and institute leadership.**
- **Drive out fear.**
- **Break down barriers between staff areas.**
- **Eliminate slogans, exhortations and targets for the workforce.**
- **Eliminate numerical quotas for the workforce and numerical goals for management.**
- **Remove barriers that rob people of pride of workmanship, and eliminate the annual rating or merit system.**
- **Institute a vigorous program of education and self-improvement for everyone.**
- **Put everybody in the company to work accomplishing the transformation.**

Information Technology's Role

- IT within healthcare can and should play a central, if not the most important, role in enabling the transition
  - Lower costs to payers and the nation
  - Support and increase revenues to providers
  - Improve quality and satisfaction for patients
- This will require that technology firms, like Persistent, become health care business experts
  - *Drive the process*

Challenges for IT

- State of IT within health care 10-20 years behind other verticals
- Few-to-non-existent interoperability standards
- Majority of clinical data is unstructured (i.e. free notes)
- Huge issues with data hygiene
- Patient medical records scattered over vast number of unconnected and unrelated systems
- Regulations, requirements, audits, policies, etc. related to Protected Health Information
  - "ANY information that can be used to infer the past, present, or future provision of health care to an individual"
- Ferocious attempts by PMR/EMR/EHR vendors to thwart interoperability

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