

# Consolidation and Competition in the US Hospital Industry

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**Health Care Antitrust in the New Administration**

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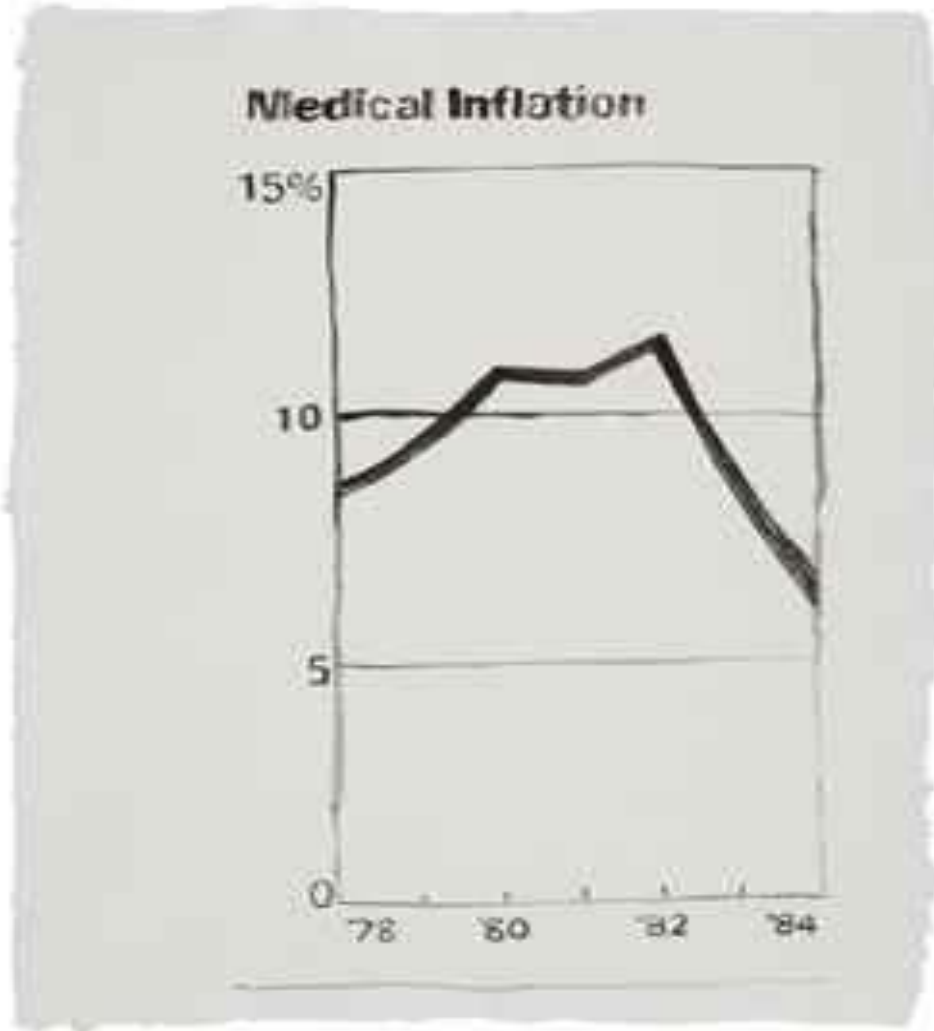
# Introduction

- The US relies on markets for the provision and financing (~1/2) of health care
  - That means that the health care system will only work as well as the markets that support it, but...
  - Those markets don't work as well as they could/should
    - Prices are high and rising, there are quality problems, there's too little organizational innovation
    - Fragmented delivery system, need for coordination of care
  - Consolidation, concentration, and market power have a large part to do with that
    - Markets are highly concentrated
    - More consolidation is happening
  - Matters for the ACA and health reform generally – depends on markets

# What's Happening?

- Health spending
  - High and increasing (\$3.4 trillion; \$10,372 per capita, 18.1% of GDP)
    - Can't be sustained without serious strain/harm
      - Recent slowdown, but unclear how likely this is to last
    - Hospital, physician services, health insurance are ~10% of GDP (more than computers, cars, beer)
- Prices
  - High, egregious billing practices
  - Prices are a major driver of private health spending increases
    - Spillover into Medicare
    - Impacts on the poor
- Quality
  - Concerns over quality
- Innovation, Efficiency, Service
  - Health system characterized as sclerotic, unresponsive, uncreative
- Consolidation
  - Lots of consolidation (hospitals, physicians, insurers, pharmaceuticals)

# Well, At Least It's Art

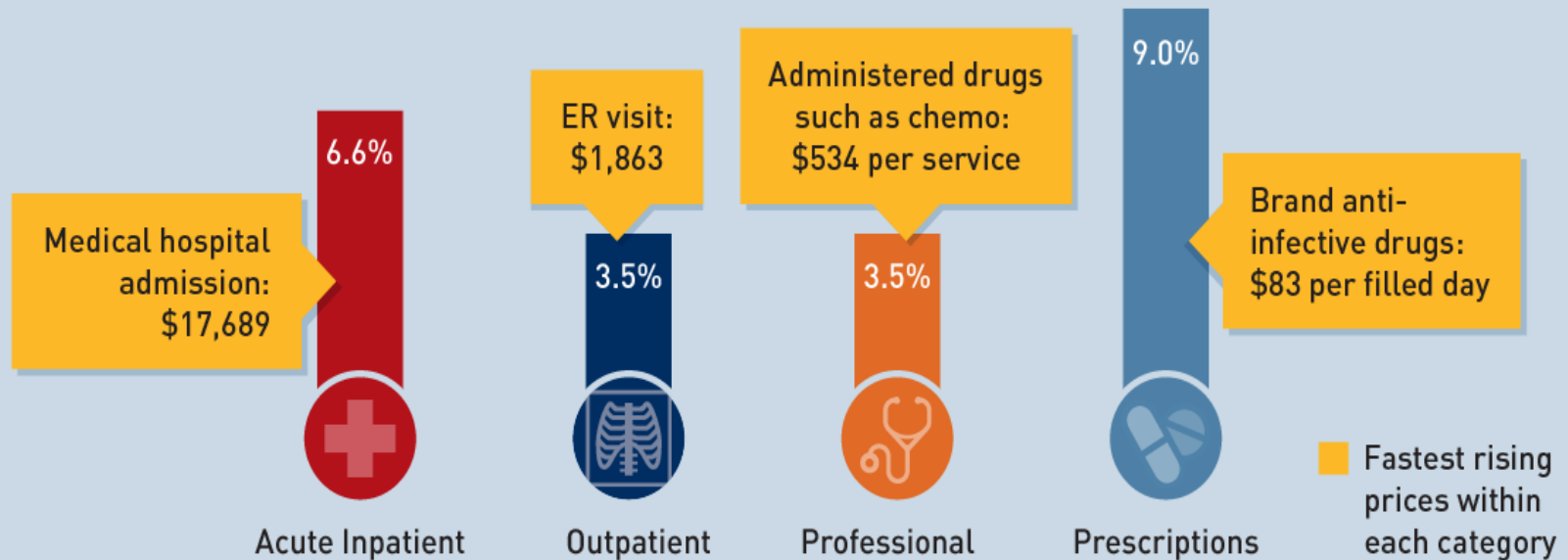


by Andy Warhol  
(Pittsburgh native,  
CMU '49)  
~ 1985-86  
was available via Christie's  
\$15-20,000

# What's Driving the Growth in Private Health Spending? It's the Prices

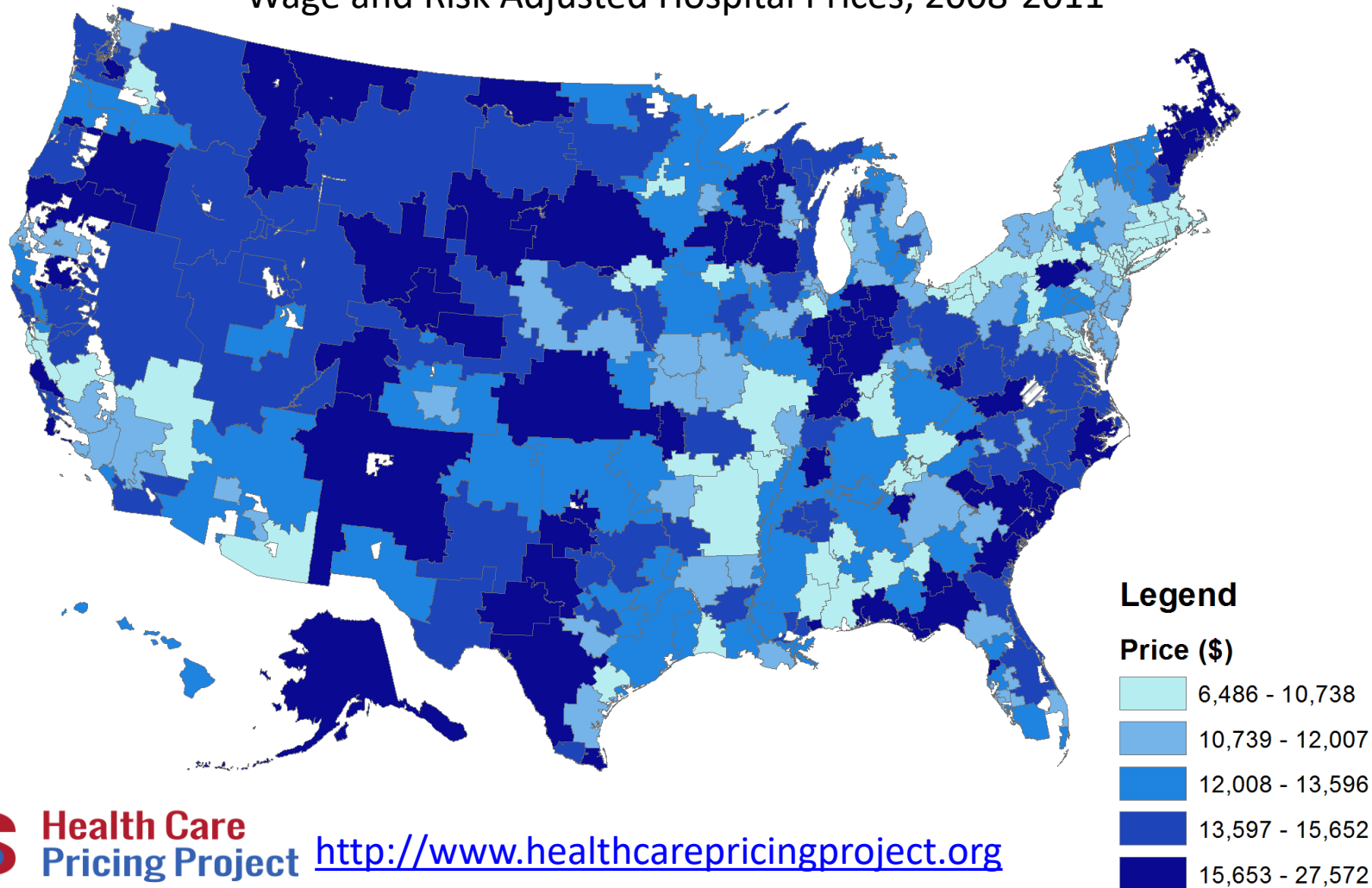
## Health Care Prices on the Rise

Change in Prices of Health Care Service Categories, 2015



# What's Driving Geographic Variation in Private Health Spending? It's the Prices

Wage and Risk Adjusted Hospital Prices, 2008-2011

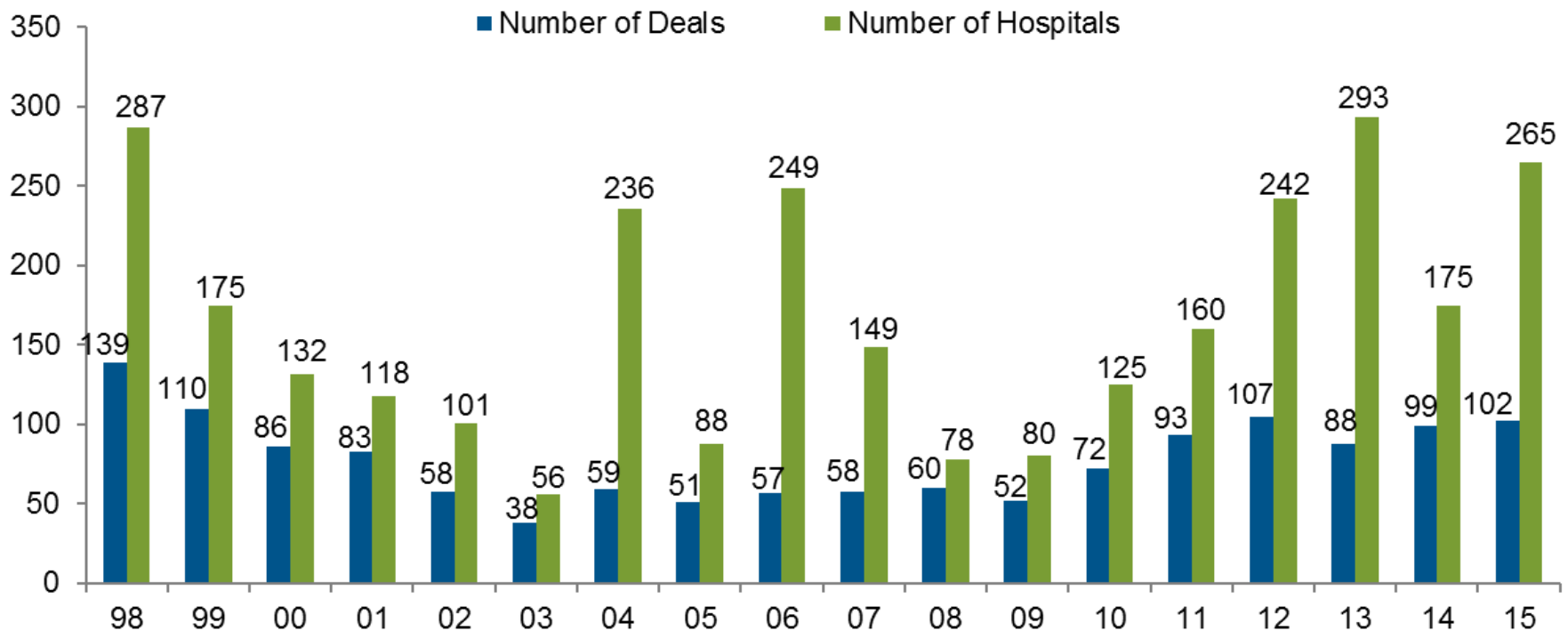


**Health Care  
Pricing Project**

<http://www.healthcarepricingproject.org>

# Hospital Consolidation

- A **LOT** of consolidation
  - 1,412 mergers from 1998-2015 (~28% of hospitals in operation in 1998); 561 from 2010
  - Only 35% of hospitals independents (not in system) by 2014
  - ~½ of hospital markets highly concentrated
  - Most urban areas are now dominated by 1-3 large hospital systems
    - Partners (Boston), Sutter (Bay Area), UPMC (Pittsburgh), Cleveland Clinic, University Hospital (Cleveland)



# Physician Practice Consolidation

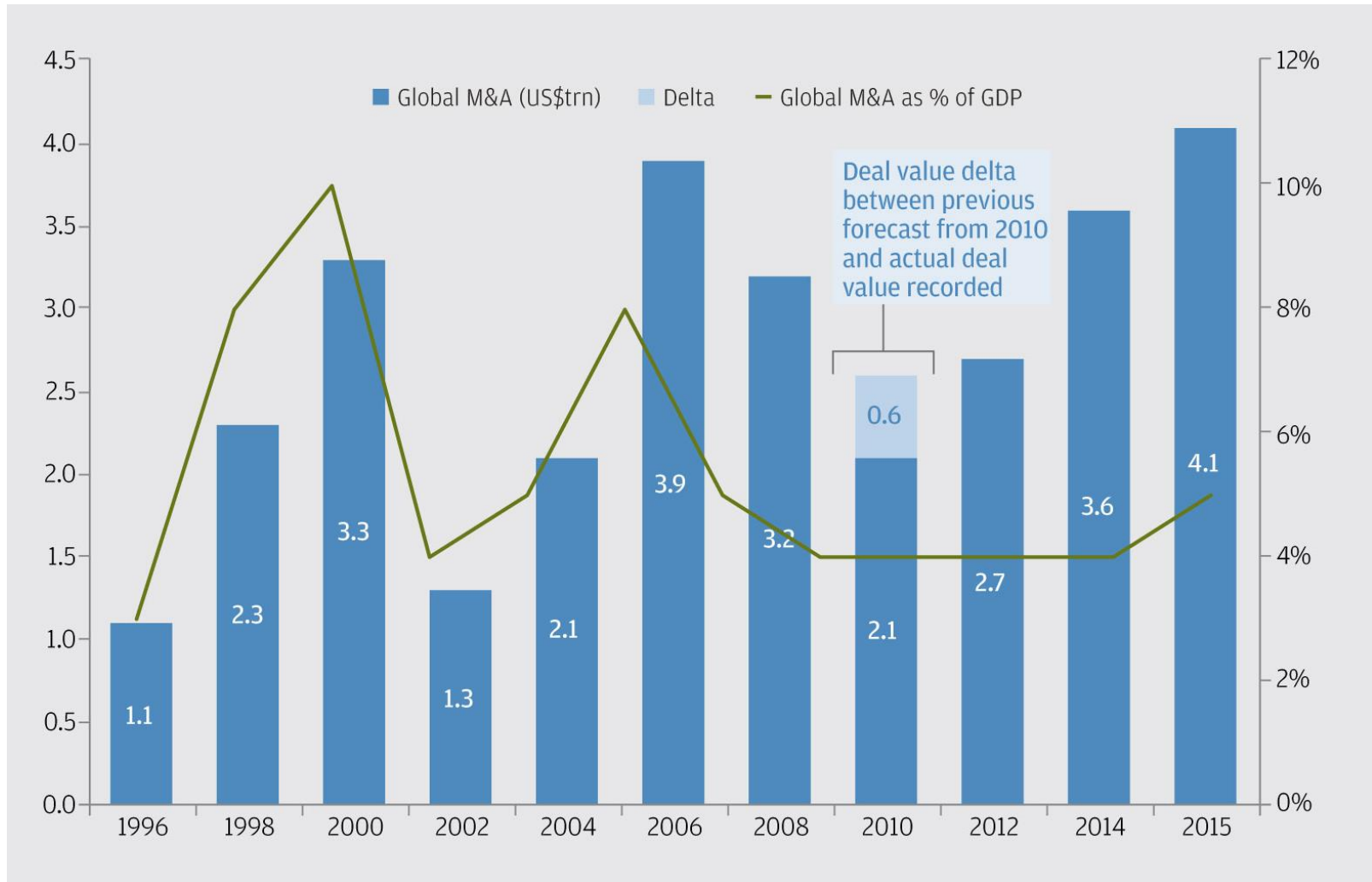
- Lots of acquisitions of physician practices by hospitals.
  - % of physicians who own their practice fell from 76.1% in 1983 to 50.8% in 2014.
  - 56.7% increase in # of doctors & dentists employed by hospitals 1999-2014.
  - 33% of physicians now employed by hospitals.
  - Share of spending from hospital owned practices rose from 16.9% in 2007 to 26.5% in 2013.
  - Growth of ACOs.
- Acquisitions of physician practices by hospitals can reduce competition in the physician services market.
  - Example: town with 2 hospitals, 10 physician practices in 10 specialties.
    - Hospital acquisition: 10 practices per specialty → 2 practices.
    - Physician integration: 10 practices per specialty → 10 multispecialty practices.
  - St. Luke's case
    - Largest health system in the state (St. Luke's); largest multispecialty group (Salzer)
    - Physician practices were each other's closest competitor
    - Benefits of merger (care coordination, EMR, evidence based medicine, risk based contracts)
      - Plausible, but speculative
      - Merger not necessary to achieve benefits
- Acquisitions can also reduce rival hospitals' referrals from physicians; rival physicians' access to hospital(s).
- Practice size growing.
  - 80% of physicians in practices of 10 or less in 1983; 61% in 2014.
  - % in solo practice: 40% in 1983, <20% in 2014



# Why Is This Happening?

- Newton's Third Law? ("For every action, there is an equal and opposite reaction.")
  - Payers respond to provider consolidation by consolidating.
  - Providers respond to payer consolidation by consolidating.
  - Lather, rinse, repeat.
  - Little evidence, but this is probably part of the story.
    - DOJ, FTC blocking mergers slow/eliminate this cycle.
- Reaction to the ACA
  - Not part of the law
  - But reaction to change seems likely
- Concerns about the future
  - Payment reform, cost control, policy changes, changes in market environment...
    - Little evidence payment reform has led to consolidation as of yet.
- Game of musical chairs
  - Don't want to be the one left standing when the music stops..
- End of recession/part of worldwide merger wave
- Attempts to solidify/enhance market position
  - Maintain/increase rates, revenue, profits
  - A major driver of consolidation

# Worldwide Merger Wave



# UNC-Carolina's Health

“In an interview at The News & Observer’s offices on Wednesday, executives of the two companies said the partnership would give them the leverage to negotiate better deals with insurance companies and vendors, saving the hospitals millions of dollars.”



# How Does Competition in Health Care Work?

- Consumers don't pay for the product directly, due to insurance
  - Not like markets for toothpaste, air travel, etc.
- Employers buy health insurance from insurers
  - Insurers compete to sell insurance to employers
    - Compete on premiums, benefits, provider networks, service
  - Employees enroll in plans offered by their employers
    - Pay part of premium directly
    - Pay part indirectly (lower pay or increase)
- Insurers contract with providers to be part of the networks for enrollees
  - Providers compete to be included in insurers' networks
    - Compete on prices, quality, services, reputation
  - Providers compete with others in the network to attract patients
    - Compete on quality, services, reputation, location
- Higher insurance premiums
  - Get passed through to workers
  - Cause employers to reduce workers' coverage, reduce their contributions
- Higher provider prices
  - Increase insurers' expenses
  - Lead to increased premiums to employers,...

# Competition/Antitrust

- Competition determined by presence/absence of close substitutes/good alternatives
- Merger
  - Competitive harm – how likely is it the merger will harm competition and consumers?
    - Will merger eliminate a close competitor?
    - Are there other close competitors in the market?
    - How likely is it that there will be timely and effective entry?
    - Provider: How important is it for a health insurer to have the merged firm in their network?
    - Insurer: How important is it for employers to offer the merged firm's plans to their employees?
  - Efficiencies (benefits)
    - Will merger create a more efficient firm?
      - Lower costs, higher quality
    - Is the merger necessary to achieve those efficiencies?
    - Will the efficiencies be passed on to consumers?

# Potential Benefits of Consolidation

- Consolidation could lead to potential benefits (“Triple Aim”).
  - Coordination of care, less fragmentation.
  - Investment in care coordination, quality.
  - Reduction of costly, unnecessary duplication.
  - Achievement of scale.
    - Costs
    - Risk contracts.
    - Volume-outcome.
  - Population health.
- But, ...
  - Consolidation isn’t integration.
  - Evidence doesn’t support the claims.
    - Costs not lower.
    - Little evidence of improved quality; not a consistent finding.
    - No evidence of increased charity care.
    - Nonprofits not cheaper or better.
  - The vaunted reputation of integrated delivery systems doesn’t hold up to inspection.

# Evidence on Benefits of Consolidation - Providers

- Schmitt (2017) – cost savings from hospital mergers
  - Acquired hospitals have lower costs; acquiring hospitals do not
  - Mergers in the same market do not lower costs
- Burns et al. (2013) – horizontal & vertical physician integration
  - Most physicians small practices (2/3rds < 5 docs; 4/5ths , 10).
    - Why, if bigger is better?
  - Growing % in large (11+) groups, assembled by hospitals (~20% of docs).
  - There are limited scale and scope economies in physician practice.
    - Evidence doesn't support large multispecialty practices better.
  - Little evidence supporting efficiency of large, vertically integrated, multispecialty groups.
    - Hospital acquisitions of physician practices may not result in greater efficiency.
- McWilliams et al. (2013) – effects of integration on physician group performance for Medicare
  - Larger hospital based groups had higher per beneficiary spending, higher readmission rates, and similar performance on process measures of quality.
  - Larger independent groups performed better than smaller groups on all process measures, and had lower per beneficiary spending in counties where risk sharing was more common.
- Weeks et al. (2010) – effects of integration on physician group performance
  - Large multispecialty groups that were members of the Council of Accountable Physician Practices had lower spending and better quality measures for Medicare beneficiaries (although differences weren't large).
- Hwang et al. (2013) – effects of integrated systems
  - Most studies show association between integration and quality.
  - Few showed reduced utilization or cost savings.

# Evidence on Benefits of Consolidation - Providers

- Goldsmith et al. (2015) – effects of integrated delivery networks
  - Little evidence that IDNs have lower costs or higher quality.
  - Growing evidence that hospital-physician integration has raised physician costs, raised hospital prices, and per capita medical spending.
  - Hospital integration into insurance not associated with shorter LOS or lower charges per admission.
  - IDN investment associated with lower operating margins and return on capital.
  - Diversification into more business lines associated with negative operating performance.
  - Few or no scope economies within health plans, hospitals, or physician groups, or between them.
  - Prominent IDNs (**UPMC**, Intermountain, Geisinger, Henry Ford, Advocate,...) don't perform better than non-IDN peers in the same market.
- Burns et al. (2015) – effects of hospital systems on costs
  - Examine 4,000 US hospitals from 1998 to 2010.
  - No evidence that system members have lower costs.
- Tsai and Jha (2014) – effects of hospital consolidation on costs and quality
  - Merging can increase volumes, but that doesn't necessarily improve outcomes.
  - Integration of care requires clinical integration and data sharing.
    - This is costly and hard.
    - Large systems not necessarily motivated to share data outside the system.
  - Larger systems better able to make investments in quality measurement and improvement.
    - Little evidence to suggest smaller institutions can't do this.
    - Leadership more important than expensive investments.
    - Not all quality interventions are expensive (e.g., checklists).
    - EHRs are expensive, but small institutions appear to be keeping up.
  - Evidence shows that competition improves quality.



# Evidence on Benefits of Consolidation - Providers

- Vogt and Town (2006) – effects of hospital consolidation on costs, quality.
  - Combining facilities lowers costs, mere consolidation does not.
    - Hospital closure, consolidating service lines
  - Some evidence of substantial scale economies.
  - Consolidation lowers quality of care.
- Gaynor and Town (2012) – effects of hospital-physician integration.
  - Physician-hospital consolidation has not led to improved quality or reduced costs.
- Gaynor, Kleiner, and Vogt (2015) – hospital scale and scope economies.
  - There are scale economies – seem to be exhausted around 330 beds
  - No evidence of scope economies (cheaper to produce both secondary and tertiary care, or different kinds of treatments, nervous system, eye).
  - Nonprofits don't have lower costs.
- Testimony of expert Kenneth Kizer in St. Luke's case
  - Employment of physicians hasn't been shown to be a superior organizational form.
  - Organizational function is key, not a specific organizational form.
  - Financial integration does not imply clinical integration.
  - Clinical integration achieved with many different forms of organization.
    - Less integrated: Fairview Health, Geisinger CABG, Sutter Health, Parc Nicollet, MSSP.
    - More integrated: Presbyterian Health, Virginia Mason, Geisinger, Intermountain, Cleveland Clinic, Kaiser.
  - IDSs don't necessarily produce integrated care.
    - VA early 90s; Military health care.
- Capps et al (2010) – consolidation and charity care.
  - No "Robin Hood" effect.
    - Nonprofit hospitals with market power don't spend more of their profits on charity care.

# Concerns About Consolidation

- Mergers between close competitors can lead to:
  - Higher prices
  - Lower quality
  - Less investment in care coordination, quality improvement
  - Resistance to better forms of payment/contracting
  - Less dynamic, innovative marketplace
- Given how much consolidation there has been, many mergers will now be between close competitors
- Evidence
  - Consolidation leads to substantially higher prices
  - Reduced competition harms quality when prices are regulated
  - Effects of competition on quality when prices are market determined is less clear
- Cross-market mergers
  - May become a higher proportion of mergers
  - Can have anticompetitive effects

# Evidence on Harms from Consolidation: Hospital Prices

- FTC retrospectives
  - Haas-Wilson and Garmon (2011)
    - Merger of Evanston Northwestern and Highland Park hospitals.
    - Four out of five insurers experienced substantial price increases due to the merger.
    - 20.1%, 26.5%, 35.1%, 64.9% (relative to non-merging Chicago hospitals).
    - Merger of St. Therese and Victory Memorial didn't increase prices.
  - Tenn (2011)
    - Merger of Sutter and Summit hospital systems in SF Bay area.
    - Summit prices increase post-merger by 28.4%, 28.7%, 44/2% for 3 insurers.
  - Thompson (2011)
    - Merger of Cape Fear and New Hanover hospitals in Wilmington, NC.
    - Price increases of 56.5%, 65.3% for two insurers, no effect for one insurer, price decrease of 30% for one insurer.
- Other mergers
  - Vita and Sacher (2001)
    - Merger of Dominican Santa Cruz and AMI-Community hospitals in Santa Cruz, CA.
    - Only two hospitals in Santa Cruz; 1 other hospital (Watsonville) in Santa Cruz county.
    - Price increases of 23% at Dominican, 17% at Watsonville.
  - Gaynor and Vogt (2003)
    - Merger of Tenet and Ornda hospital corporations.
    - 2 Tenet hospitals in San Luis Obispo county (Sierra Vista, Twin Cities); one Ornda hospital (French).
    - 3 hospitals in SLO itself (French, General, Sierra Vista).
    - Five hospitals in San Luis Obispo county, two more within 50 miles.
    - Merger would have led to price increases of 53% at French, 32% at Sierra Vista, 33% at Twin Cities, 5% at General, 5% Arroyo Grande.
  - Dafny (2009)
    - Hospitals increase price by 40% following mergers of nearby rivals.
  - Nevo, Gowrisankaran, and Town (2014)
    - Merger of Inova Health System and Prince William hospital in Northern Virginia.
    - Price increase of 30.5% at Prince William.
- Increased insurance premiums
  - Trish and Herring (2015): 3 to 2 hospital merger → 4.2% increase in premiums.

# Evidence on Harms from Consolidation: Physician Prices

- Physician practice mergers
  - Can lead to substantial price increases (Dunn and Shapiro, 2014, Baker et al., 2014a)
  - Can lead to higher price growth (Baker et al., 2014a)
- Hospital acquisitions of physician practices
  - Higher spending (Robinson and Miller, 2014, Baker et al., 2014b)
  - Higher prices (Baker et al., 2014b, Capps et al., 2015)
  - Changed referral patterns (Baker et al., 2015)
    - To acquiring hospital
    - More likely to go to high cost, low quality hospital

# Evidence on Harms from Consolidation: Provider Quality

- Consolidation can lead to substantially lower quality – administered prices
  - 1.46 percentage points higher mortality rate in most concentrated markets for Medicare heart attack patients (Kessler and McClellan, 2000)
  - Higher mortality rates in more concentrated markets for English NHS patients (Cooper et al., 2011; Gaynor et al., 2014; Bloom et al., 2015)
  - Higher mortality rates in more concentrated physician markets for Medicare PCI patients (Eisenberg, 2015)
- Consolidation can lead to lower quality – market determined prices (but some studies go the other way)
  - Hospital merger (Evanston) had no effect on some quality indicators, harmed others (Romano and Balan, 2011)
  - Hospital mergers in NY state had no impacts on many quality indicators, led to increases in mortality for AMI, heart failure patients (Capps, 2005)
  - Removal of barriers to entry led to increased market shares for low mortality rate CABG surgeons in PA (Cutler et al., 2010)

# Why Should We Care?

- Health care spending growth is high and unsustainable.
  - We are mortgaging our future and our children's future.
- Higher health care spending harms workers and employers.
  - Average American family hasn't had an increase in their real income net of health care costs in a long time.
  - Increasing share of total compensation going to health care.
- Disproportionate burden on the least fortunate among us.
  - Greater burden of high prices.
  - Less access (Medicaid less attractive).
  - Quality concerns.
- Rigidities in health care markets lead to high prices, lower quality, and a lack of innovation.
  - Lower quality can have profound consequences for patients.
  - Firms with market power don't have strong incentives to innovate.
  - This means new and better ways of organizing and delivering care, taking full advantage of advances in information and medical technology.

# What Should We Do?

- **Competition policy for health care**
  - **Antitrust: Federal and States**
    - Continue and step up horizontal merger enforcement
    - Pursue vertical cases
    - Pursue anticompetitive practices
  - **Regulations: Federal and States**
    - Coordinate, minimize regulatory burden
      - Higher compliance costs lead to incentive to consolidate
    - Eliminate/modify regulations that restrict competition and protect incumbents
  - **Payment: Federal, Private Insurers**
    - End distortions that incentivize consolidation
- **What to do in highly consolidated markets?**
  - Break up large, integrated systems?
  - Regulation?

# The Challenge

- We are facing a great challenge to our health care system.
- If left unchecked, consolidation could undermine our best efforts to control costs, improve care and make our system more responsive and dynamic.
- We need new and vigorous policies to encourage beneficial organizational change and innovation.
- If we fail, we will likely have an even more expensive, less responsive health system that will be exceedingly hard to change.
- This is the #1 priority for health care – the time to act is now.



END