Pay-for-Performance and Consumer Incentives: The Available Evidence and AHRQ Resources

Supported by:
Agency for HealthCare Research and Quality
U.S. Department of Health and Human Services

Prepared by:
Meredith B. Rosenthal, Ph.D.
Harvard School of Public Health
R. Adams Dudley, M.D., M.B.A.
University of California San Francisco

Outline of Talk

- Pop quiz: What is known now?
- (Brief) description of conceptual models of how incentives might work
- Description of resources available from AHRQ (or coming soon from AHRQ)
- Conclusions

Pop Quiz On Pay-for-Performance: Question #1

- Outcome variables:
  - Are Vanderbilt pediatrics residents present for well-child visits for their patients?
  - Do they make extra trips to clinic when their patients have acute illness
- Intervention: randomize them to receive (in addition to their usual salary) either:
  - $2/visit scheduled
  - $20/month for attending clinic
- What will happen???

Pop Quiz On Pay-for-Performance: Question #1

- Answer: Hickson et al. Pediatrics 1987;80(3):344
  - $2/visit-incentivized residents did better on both measures

Pop Quiz On Pay-for-Performance: Question #2

- Which P4P approach will have the larger effect?
  - Bonus to capitated medical groups that make top deciles on cancer screening measures?
  - Flat rate bonus to capitated medical groups to improve cancer screening rates relative to their own prior performance?

Pop Quiz On Pay-for-Performance: Question #2

- Trick question, because neither worked
  - The incentive was negative, right?
  - If you pay *capitated* medical groups to *screen* for cancer, they have to perform procedures on *asymptomatic* patients
  - Doesn't take many extra colonoscopies to use up your bonus…and if you actually find cancer, you have to pay for tx out of your cap rate

Pop Quiz On Pay-for-Performance: Question #2

- But really, which is better? Or at least what distinguishes the 2?:
  - Bonus to capitated medical groups that make top deciles on cancer screening measures?
  - Flat rate bonus to capitated medical groups to improve relative to their own performance?

Pop Quiz On Reputational Incentives: Question #1

- Outcome variables:
  - Do US hospitals engage in quality improvement activities
  - Do pts change hospitals
- Intervention:
  - HCFA (the old name for CMS) releases a report showing each hospitals overall mortality rate
- What will happen???

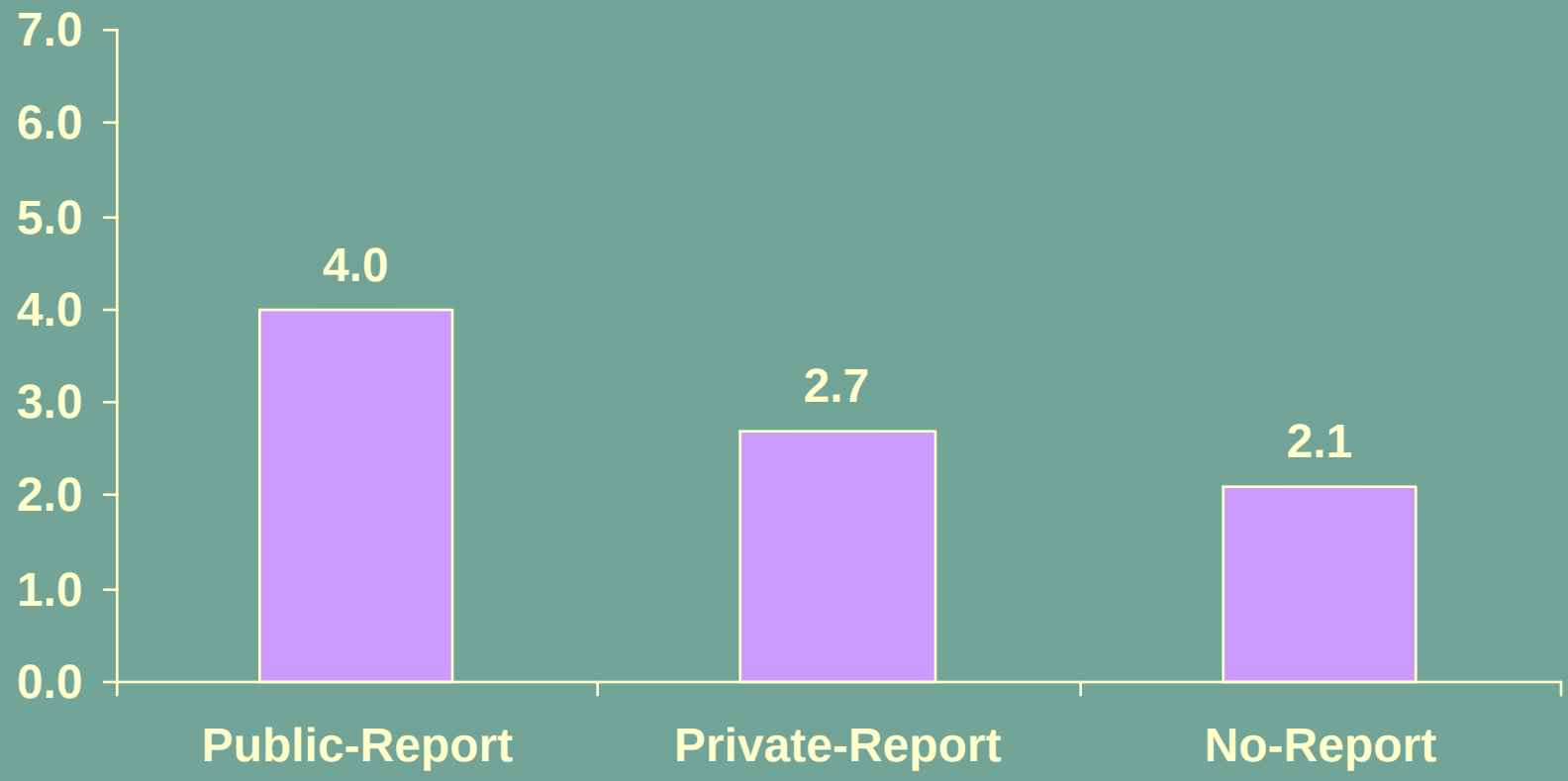
Pop Quiz On Reputational Incentives: Question #1

- Answers:
  - Hospital leaders said they didn't use the data because they thought it was inaccurate, though there was a slight chance hosps rated as doing poorly would use data
  - Not much impact on bed occupancy for hosps in NY

Pop Quiz On Reputational Incentives: Question #2

- Outcome variables:
  - Do Wisconsin hospitals engage in quality improvement activities in obstetrics
- Intervention: three groups in this study:
  - Public report of performance aggressively pushed by local business group to the media and employees, big focus on making the data understandable to consumers
  - Confidential report of performance
  - No report at all
- What will happen??? Hibbard et al. Health Affairs 2003; 22(2):84

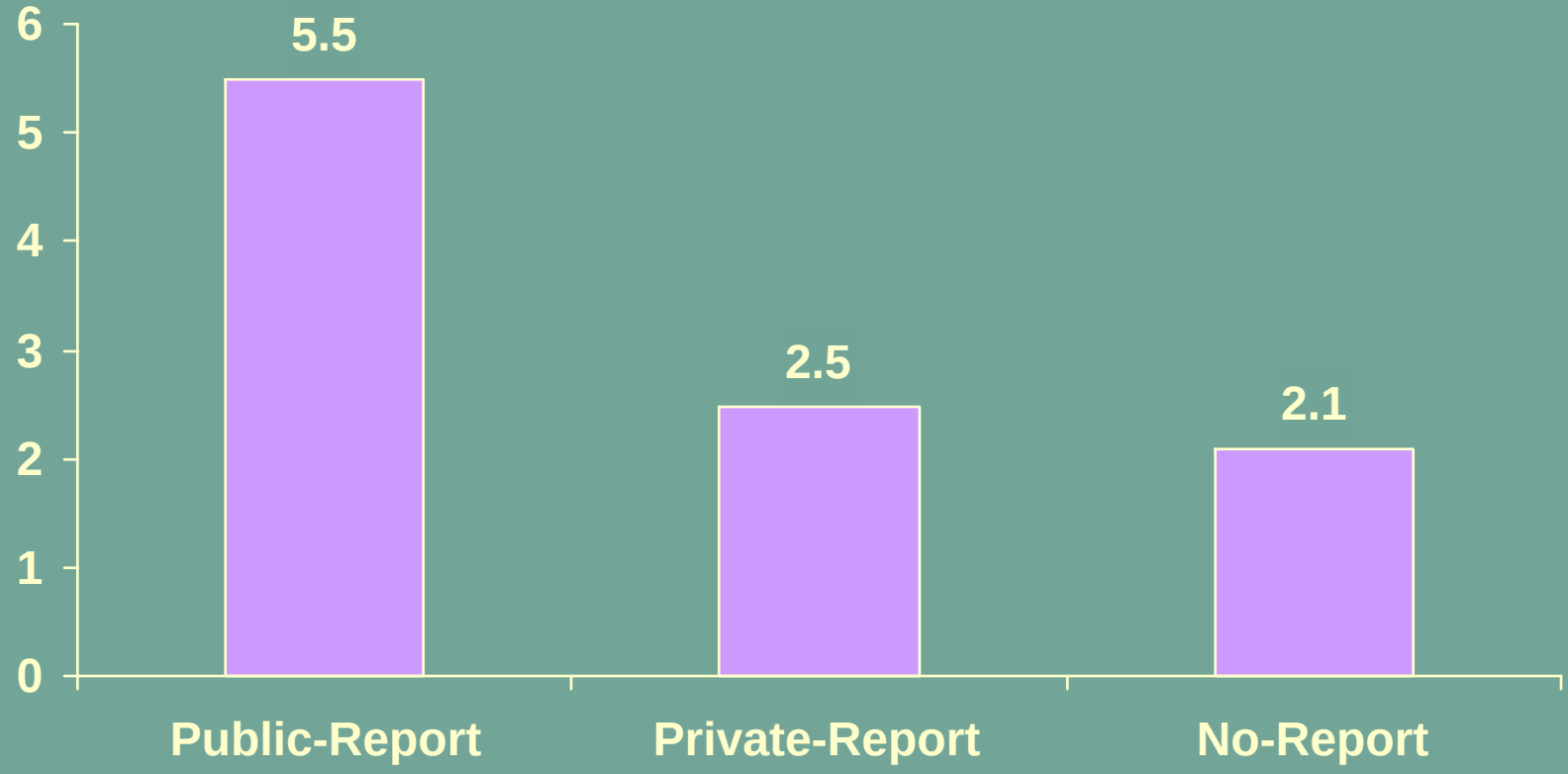
- Average number of quality improvement activities to reduce obstetrical complications: Public report group has more QUALITY IMPROVEMENT ($p < .01$, $n = 93$)



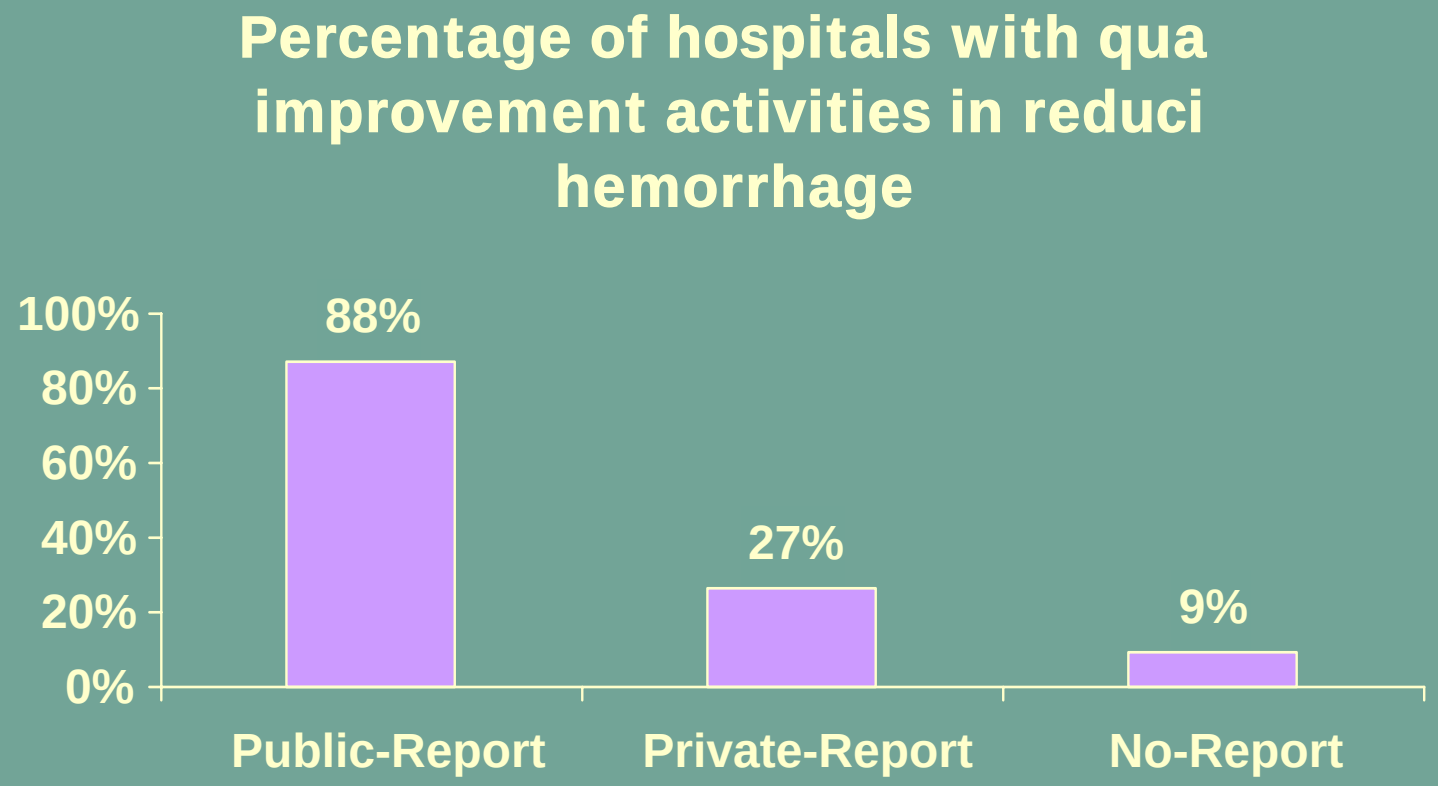
Best practices around c-sections
Best practices around v-bacs
Reducing 3rd or 4th degree laceration

Reducing hemorrhage
Reducing pre-natal complications
Reducing post-surgical complications
Other

- Hospitals with poor OB scores: Public report group have the most OB QI activities (p = .001, n = 34)



- Hospitals with poor OB score: Public report group have more QI on reducing hemorrhage —a key factor in the poor scores ($p < .001$, N=34)



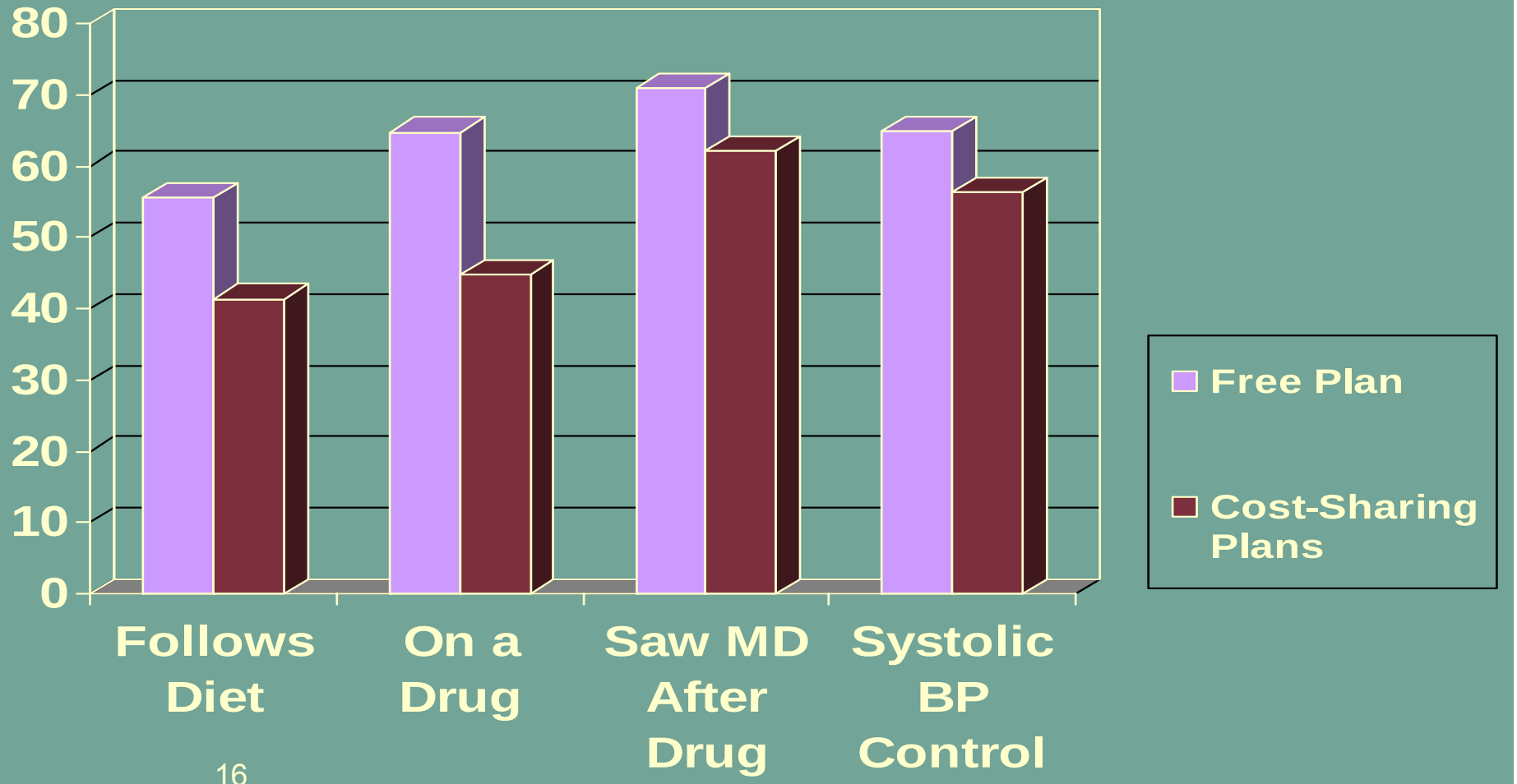
Pop Quiz On Reputational Incentives: Questions #1 & 2

- So if you do it right, reputational incentives can have an impact…
- …and if you do it wrong, they probably won't

Pop Quiz On Consumer Decisions: Question #1

- Outcome variables:
  - Does cost-sharing cause patients to reduce their use of wasteful care?
- Intervention:
  - Randomize patients to free care and drugs or cost-sharing
  - Measure blood pressure treatment and results
- What will happen??? Keeler et al. JAMA 1985; 254(14):1926

Percentage of Hypertensives Receiving High Quality Care: Processes and Outcomes by Plan



Pop Quiz On Consumer Decisions: Question #1

- And the risk of death was 10% higher…
  - Brook et al. NEJM 1983; 309(23):1426

Wisdom of Decisions about Health Care Spending

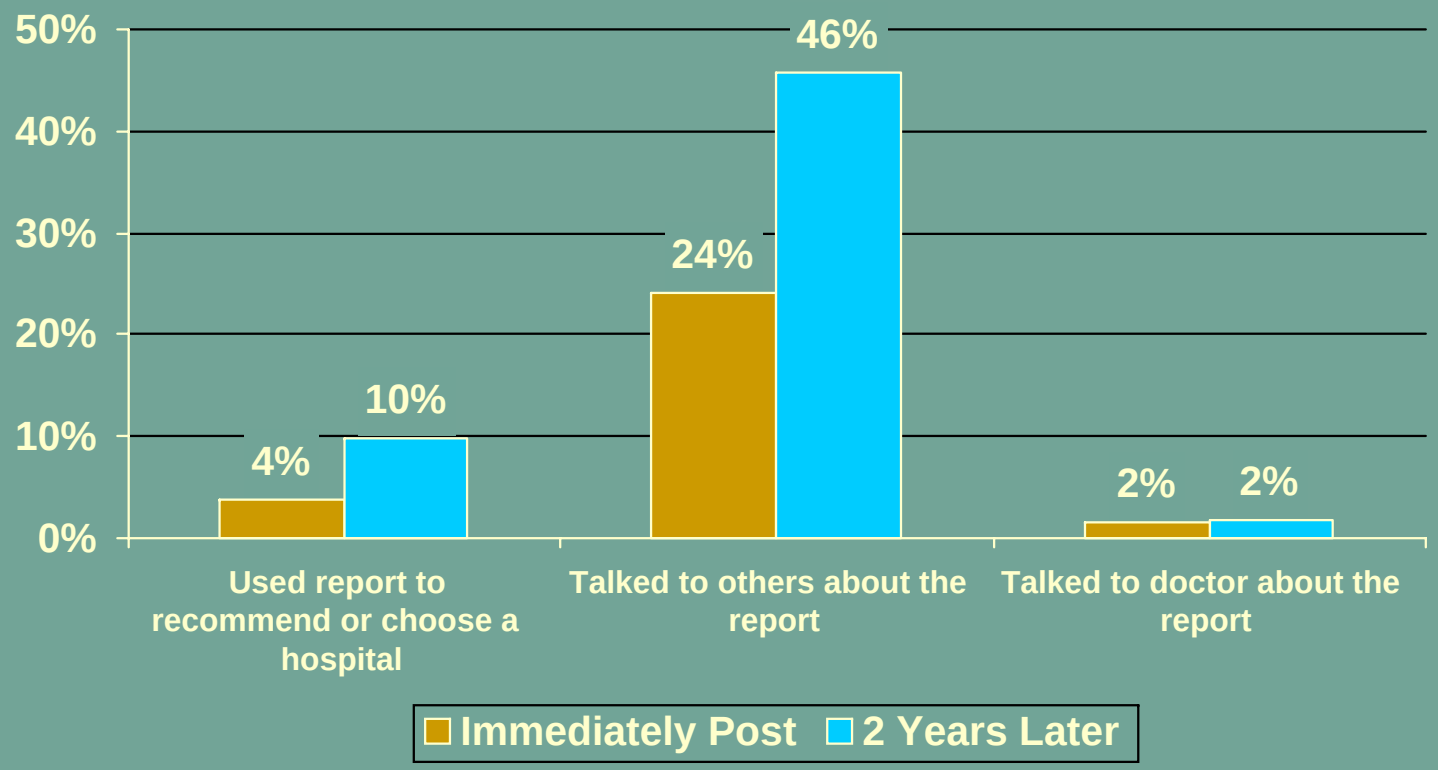
- TEENAGER < CONSUMER < EPIDEMIOLOGIST

- *Note: This was tested in a milieu in which consumers had no information about what to do!*

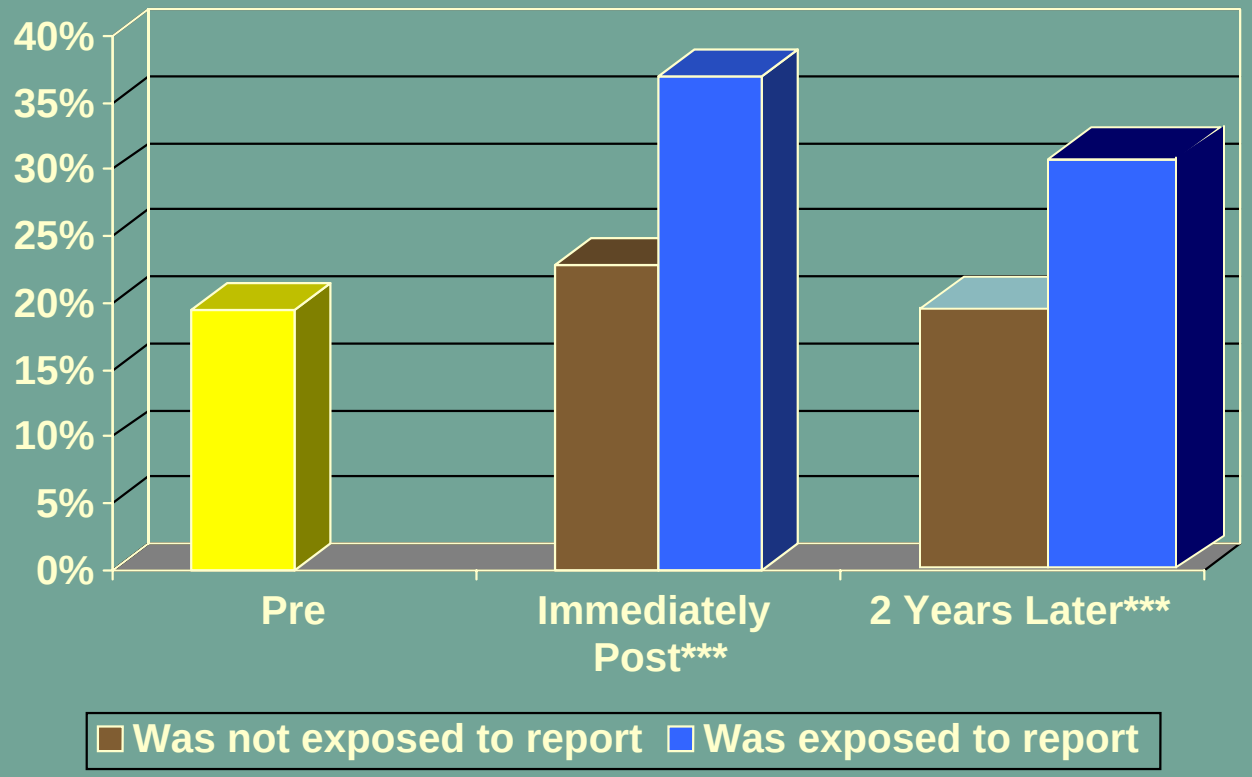
Pop Quiz On Consumer Decisions: Question #2

- Outcome variables:
  - Do consumers know which hospitals have performed well?
- Intervention:
  - Public report pushed by local business group, data understandable to consumers
  - Surveyed consumers 6 months and 2 years after report
- What will happen??? Hibbard et al. Med Care Res Rev. 2005 Jun;62(3):358

How the Hospital Report was Used: Immediately after release and 2 years later

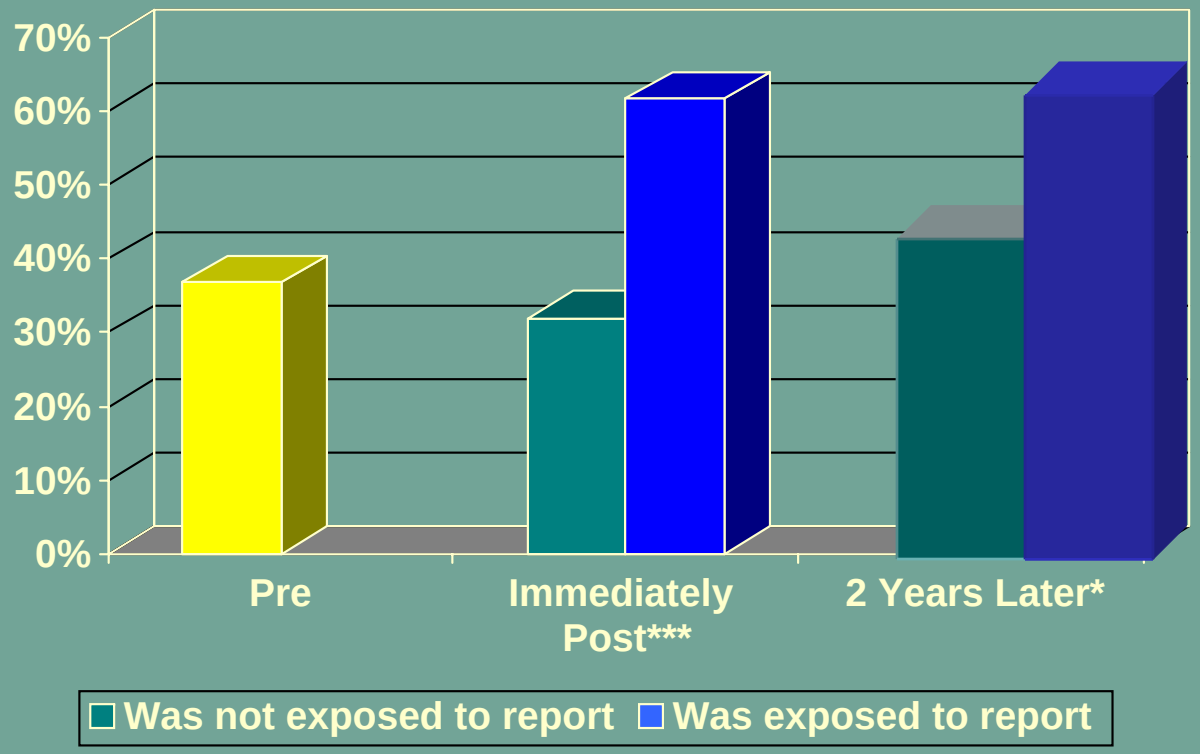


Correctly Identified Highly Rated Hospitals



*** p < .001

Correctly Identified Low Rated Hospitals



* p < .05, *** p < .001<

Factors Related to Identifying a highly rated Hospital (Beta Weights)

	Post	Year 2
Gender	.00	.07
Exposure to report	.19***	.13***
Age /Length of time in the area	.11**	.04
Importance of reputation	-.02	.05
Importance of family recommendation	.03	.00

* p < .05, ** p < .01, *** p < .001

Hibbard: Reports can influence consumers

- Evidence for an impact on consumer perceptions of hospital quality – with diminishing but observable long-term effects
- People talked about the report and influenced the views of others
  - Some indication that social networks plays a role in the recommendation of higher rated hospitals

Reasons for optimism

- Some programs that address key conceptual issues and might help move us forward

Case Example: Hudson Health Plan: Rewarding Quality Diabetes Management

Measure	Reward
Blood pressure	$15 for screening and $35 for BP<130/80 or $20 for <140/90 or $15 for ≥10 mmHg decrease in one and goal in the other
Smoking cessation counseling	$15
A1C testing and control	$15 for screening and $35 for A1C<7 or $20 for A1C<9 or $15 for a 1% or more reduction
LDL-C testing and control	$15 for screening and $35 for LDL<100 or $20 for LDL <130 or $15 for evidence of drug tx
Documentation of albuminuria; ACE/ARB treatment if positive	$15 for screening and $35 for negative test, evidence of drug tx, evidence of contraindication, or nephrology consult
Retinal exam	$15 for exam with documentation of result
Pneumococcal vaccine	$10
Flu shot	$10

Promising Design Elements of HHP Pay-for-Performance Approach

- Rewards are per patient so:
  - There is no denominator, which means “bad” patients do not ruin your score
  - There is no “cliff” where getting one fewer process/outcome victories reduces your award to nothing
- Mix of process and intermediate outcome measures: all scored using admin data and are encouraged to submit chart abstracts (by fax generally) to improve process measurement and get credit for intermediate outcome performance
  - Voluntary and universal elements
  - Thresholds for intermediate outcome measures based on literature where it exists, consensus of physician advisory group

Explicitly Targeting Disparities: Blue Cross Blue Shield of Massachusetts

- Broad pay-for-performance programs for individual primary care physicians, groups, hospitals
- Measures are generally based on national measure sets (HEDIS-type ambulatory care measures, JCAHO/CMS for hospitals)
- Added cultural competence training in 2007 as an element of its pay for performance program for primary care physicians and specialist groups

"Value-based Benefit Design"* Examples

- Transmit information about "high-value" vs. "low-value" care through cost-sharing
- Health plan example: Aetna HealthFund exempts from deductible:
  - Preventive care
  - Drugs for chronic diseases (e.g., DM, HTN)
- Employer example: Pitney Bowes has reduced copayments for diabetes, asthma and hypertension medications

* See M. Chernew, A. Rosen, A.M. Fendrick, "Value-Based Insurance Design," Health Affairs, 26(2), w195-203, 30 January 2007.

Using Incentives to Steer Enrollees to "High-Value Providers" Network Tiering

- Tiered networks increasingly prevalent
- How to measure "value" in one dimension when cost, quality are unrelated?
- How to structure incentives (and related information) to motivate switching?

Tufts Navigator PPO (Massachusetts)

- Hospitals rated on cost and quality scales
  - plan $ per standardized admission
  - National standard quality measures already being reported (JCAHO, Leapfrog, etc.)
- Separate rating for pediatric, obstetrical, and general med/surg
- Good/better/best = $500/$300/$150 copayment
- Exclusions: e.g., organ transplant Centers of Excellence

Overview of AHRQ Resources

- Technical Review of Financial Incentives[1]:
  - provides overview of literature on P4P, plus detailed conceptual considerations and a model of how to think about using incentives
- P4P Decision Guide[2]:
  - Goal is to help purchasers decide whether and how to engage in P4P
- Consumer Incentives Decision Guide:
  - Similar to P4P Decision Guide in intent/structure
  - target publication in July

- *1. Dudley, RA, et al. Strategies to Support Quality-based Purchasing: A Review of the Evidence (Technical Review No. 10). AHRQ Publication No. 04-0057.*
- *2. Dudley, RA, Rosenthal, MB. Pay for Performance: A Decision Guide for Purchasers. AHRQ Publication No. 06-0047.*

AHRQ P4P and Consumer Incentive Decision Guides

- Not users manuals: too little data
- Many real world examples
- Address:
  - Developing an overall strategy
  - Incentive design and measures selection
  - Implementation
  - Evaluation and revision

Summary

- P4P *can* facilitate improved patient care, cost-efficiency
- Consumers can learn, may be able—if given the right information—to make good choices
- Best practices still unknown
- Careful matching of goals and mechanisms will most likely lead to best results
- In light of uncertainties about design, evaluation is key