Performance Incentives and Disparities

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The Sixth National Pay for Performance Summit
Session 2.4: P4P and Disparities
Definition of a Performance Incentive

- An incentive that explicitly link rewards and/or sanctions to specific health care processes and/or outcomes

- “Pay-for-performance” aka “P4P” ➔ Cash

- “Public reporting” ➔ Reputation
Background

- American healthcare is expensive and lacks quality and equity
- P4P has been and will continue to be a key strategy aimed at better aligning rewards with quality healthcare
Overarching Problem

• Programs/policies designed primarily to reduce healthcare costs and to improve quality may under-recognize their potential downstream effect on disparities
Pay-for-Performance, Public Reporting, and Racial/Ethnic Disparities in Care

How are programs being designed?

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Lawrence P. Casalino, MD, PhD

Medical Care Research and Review 2007;64:283S-304S.
# Methods

| Study Design: | Cross-sectional 2006  
|              | Semi-structured interviews |
| Population:  | P4P Designers/Leaders  
|              | Nationally prominent programs (All 5)  
|              | Medicaid programs (All 11)  
|              | Commercially-sponsored programs (Random 10 of 90) |
| Interview Tool: | Potential Impact on Disparities  
|               | Mechanisms of Impact  
|               | Recommendations |
| Analysis:     | Constant comparative method |
Potential Impact of P4P on Disparities

- **Neutral**
- **Narrowing**
- **Widening**
Potential Impact of P4P on Disparities

- **NEUTRAL**: More of the same
- **NARROWING**: Shores up differences
- **WIDENING**: Has differential impact, identifies minority sub-groups in need of more tailored programs, widens resource gaps between “rich” and “poor” organizations, induces cherry-picking.
Potential Impact of P4P on Disparities

**NEUTRAL**
- More of the same

**NARROWING**
- Shores up differences
- Identifies minority sub-groups in need of more tailored programs

**WIDENING**
Potential Impact of P4P on Disparities

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Has differential impact
Widens resource gaps between “rich” and “poor” organizations
Induces cherry-picking
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Leader Recommendations

1. Risk adjustment – Controversial.

2. Collect race and ethnicity data.

3. Emphasize conditions of higher prevalence in minorities.

4. Encourage nationally-prominent organizations to establish ‘disparity’ guidelines and/or measures.

5. Reward improvement.
Leader Recommendations

1. Collect race and ethnicity data.

2. Emphasize conditions of higher prevalence in minorities.

3. Encourage nationally-prominent organizations to establish ‘disparity’ guidelines and/or measures.

4. Reward improvement.

Weinick RM, Chien AT, Rosenthal MB, Bristol SJ, Blumenthal DR. Hospital Executives' Perspectives on Pay-for-Performance and Racial/Ethnic Disparities in Care. Medical Care Research and Review 2010;1-6
Conclusions

Leaders/designers of P4P programs consider programs with strong achievement-based rewards to be a risk for widening healthcare disparities.
Do Physician Organizations Located in Lower Socioeconomic Status Areas Score Lower on Pay-for-Performance Measures?

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Yelena Yakunina, BSc
Lawrence P. Casalino, MD, PhD

Submitted
## Methods

**Study Design:** Cross-sectional, 2009

**Population:** Integrated Healthcare Association’s P4P Program
160 Physician Organizations (POs)

**Variables:**
- **Predictor:** Area SES
- **Outcome:** IHA P4P Performance
- **Adjusters:** Size, Type,
  % Annual Revenue from Medicaid

**Analysis:** Logistic regression
10 Key Census-Defined Measures

1. Obtained
2. Geocoded addresses to Census Tracts
3. Linked tracts to
4. Standardized tract values against state means (aka calculated Z-score) and summed
5. Weighted by site size, then summed

Physician Organization

Practice Sites

Census Tracts

Site-Specific Socioeconomic Status Score

Physician Organization-Specific Socioeconomic Status Measure
## Results

<table>
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<tr>
<th>Physician Organization Characteristic</th>
<th>Top Two Quintiles of Composite Performance Score</th>
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<tr>
<td>Size</td>
<td>OR (95% CI)</td>
</tr>
<tr>
<td>- Log10 # of Primary Care Physicians</td>
<td>12.74 (4.01, 40.51)***</td>
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<tr>
<td>Type</td>
<td></td>
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<tr>
<td>- Medical Group (IPA is referent)</td>
<td>15.83 (5.82, 43.08)***</td>
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<tr>
<td>Percent of Annual Revenues from Medicaid</td>
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<tr>
<td>- Per 10% increase</td>
<td>0.57 (0.27, 1.23)</td>
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<tr>
<td>Physician Organization Socioeconomic Status Measure (PO SES) per 1 SD increase</td>
<td>2.76 (1.68, 4.54)***</td>
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N=160; OR = Odds Ratio; CI = Confidence Interval; SD = Standard Deviation  
*p<0.05, **p<0.01, ***p<0.001.
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<tr>
<th>Physician Organization SES Measure</th>
<th>Roads</th>
<th>Highways</th>
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<tr>
<td>-26.64 - -11.10</td>
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<td>-11.09 - -3.12</td>
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<td>3.91 - 12.02</td>
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<td>12.03 - 26.43</td>
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**Practice sites**
- • High Performing PO
- • Low Performing PO
Conclusions

Physician Organizations located in lower SES areas may be less likely to earn P4P rewards than those in higher SES areas.
Improving Childhood Immunizations through Pay-for-Performance in Medicaid Managed Care

Alyna T. Chien, MD, MS
Zhonghe Li, MS
Meredith B. Rosenthal, PhD

Health Services Research; 2010 Sep 17
“Piece-Rate” P4P Program

Hudson Health Plan

- New York State, 2003-2007
- ~40,000 enrollees 0-18yo
- $200 “bonus” to medical practices for each 2-year old up-to-date on their childhood immunizations
- Administrative supports = monthly patient lists
Methods

Study Design 1: Case-comparison
  • Plan-level
  • Audited quality data comprising claims + chart review
  • Difference-in-difference analysis

Study Design 2: Interrupted time series
  • Patient-level data
  • Hudson Health Plan claims data only
Results: Impact on Quality

Immunization rates
Medicaid health plans in New York

*Difference-in-difference p<0.01.
Results: Impact on Disparities

Immunization Rates by Ethnicity/Race

- Hispanic
- Black
- White

Year:
- 2003
- 2004
- 2005
- 2006
- 2007

Percent Immunized (timely):
- 30.0%
- 35.0%
- 40.0%
- 45.0%
- 50.0%
- 55.0%
- 60.0%
Conclusions

Piece-rate pay-for-performance:
• Effective for improving quality
• Neutral impact on disparities
Payment policies should be:

- Designed with disparities in mind, and
- Tested for their impact on costs, quality, and equity
Future Directions

Finish K08 Project

Pediatric payment policies:
- Evaluation of Alternative Quality Contract
- Evaluation of Care Coordination Intervention (R18 Submission)
alyna.chien@childrens.harvard.edu
Extra Slides
Background

• P4P will be a key strategy as healthcare reform unfolds

• P4P must offset intensified efforts to control costs
Study Goal

• To understand what P4P program leaders and designers thought would be the potential impact of their programs on disparities

• To obtain their recommendations for designing programs to eliminate disparities
Study Goal

• To examine the association between the SES of provider setting and P4P performance
Quintiles of the Physician Organization Socioeconomic Status Measure

Trend Test $p<0.001$