UPMC – Combining PCMH and Shared Savings Lowers Costs and Improves Quality of Primary Care

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Who We Are

Highly integrated system with an academic medical center hub that is closely affiliated with the University of Pittsburgh Schools of Health Science

**Hospital and Community Services**
- 20 hospitals
- More than 400 outpatient locations
- 35 cancer centers

**Physician Services**
- 3,400 employed physicians
- $450+ million in NIH funding per year with University of Pittsburgh

**Insurance Services**
- 2.2 million lives enrolled in a portfolio of insurance products
- 22% membership growth in past year
- 10,000+ local employer groups

**International and Commercial Services**
- International clinical operations and advisory services
- Ireland: hospital, cancer centers; Italy: hospital, research

UPMC Center for High-Value Health Care
Can the integration of Shared Savings (SS) and Practice Centered Medical Home (PCMH) programs lead to a fundamental payment reform by reducing health care cost while improving quality of care?
Introduction: Study Questions

1) What are the savings with PCMH and SS programs?

2) What are the cost drivers of these savings?

3) What are the changes in outpatient visits?

4) Are there improvements in quality measures (HEDIS)?

5) How does savings compare with quality changes?
Methods: Design and Sample

- **PCMH Programs**
  - 159 practices (in model)
  - staggered starts since 2008
- **Shared Savings**
  - 246 practices (in model)
  - staggered starts July 2011
- **Both PCMH + Shared Savings**
  - 114 practices
  - variety of start scenarios
Methods: Measures and Analysis

**Medical and Pharmacy Cost PMPM**
Statistical significance obtained from general linear mixed effect model clustered at practice level
Piecewise linear regression for timing and magnitude of savings

**HEDIS quality measures**
12 month pre/post analysis using logistic model
Comparison to similar practices from rest of network (RON)
How Has This Rolled Out?

Sources:
PCMH Sites & Dates: CCADMIN.CHRONIC_CARE_PRACTICES
SS Sites & Dates: FORDJK.GS_ACTIVES_AND_TERMS_VW
The Bottom Line – Impact on Costs

**Medical Costs**
- Savings is observed without delay in SS, after 5 months in PCMH, and up to 12 months when the site is both
- Compared to RON, there is no difference in medical

**Pharmacy Costs**
- Significant savings in Pharmacy without delay in all programs and significantly better than RON

**Total Costs**
- No difference compared to RON, except when site is PCMH + SS

**Quality**
- Quality (HEDIS) improves significantly in all programs
Results: What are the savings with PCMH + Shared Savings (SS) programs?

<table>
<thead>
<tr>
<th></th>
<th>Savings PMPM</th>
<th>Delay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical PMPM</td>
<td>$1.48</td>
<td>&lt; 12 Months</td>
</tr>
<tr>
<td>Pharmacy PMPM</td>
<td>$0.45</td>
<td>4-5 Months</td>
</tr>
<tr>
<td>Medical+Pharmacy PMPM</td>
<td>$1.91</td>
<td>&lt; 12 Months</td>
</tr>
</tbody>
</table>
Results: What are the cost drivers of these savings?

<table>
<thead>
<tr>
<th>Cost Driver</th>
<th>Savings PMPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admissions</td>
<td>$0.23</td>
</tr>
<tr>
<td>Emergency Room</td>
<td>$0.11</td>
</tr>
<tr>
<td>Observations</td>
<td>$0.08</td>
</tr>
<tr>
<td>Low Tech Radiology</td>
<td>$0.13</td>
</tr>
</tbody>
</table>

UPMC Center for High-Value Health Care
Results: What are the changes in outpatient visits?

<table>
<thead>
<tr>
<th></th>
<th>PCMH %change</th>
<th>SS %change</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCP visits</td>
<td>1.7</td>
<td>1.3</td>
</tr>
<tr>
<td>Specialist visits</td>
<td>1.5</td>
<td>0.7</td>
</tr>
</tbody>
</table>
Results: Are there improvements in quality measures (HEDIS)?

![Change in HEDIS measure pre to post period](image)

- DM all 4: PCMH+SS = 3.8, RON = 3.1
- CAD Lipid: PCMH+SS = -1.4, RON = -1.5
- Breast Cancer Screen: PCMH+SS = 2.9, RON = 0.6
- Colorectal Cancer Screen: PCMH+SS = 11.2, RON = 4.2

* p < 0.05
Results: How does savings compare with quality changes?
Savings Expectations

If program started ~6 months ago, no savings
If program started ~6-12 months ago, ‘prorated’ savings
If program started 12+ months ago, savings = offset

Program Value = Avoided Costs
Combining PCMH and Shared Savings programs led to significant cost savings while improving care quality.

Longer-term sustainability needs more research.
Payer-provider partnerships that *integrate* PCMH and Shared Savings programs is an important first step in fundamental payment reform improvement in primary care practices.
Focus on Aligning Financial Incentives

2008
PCMH
Implement
N=6

2009
Additional
PCMH
N=6

2010
Exploration
of Alternative
Payment
Methods
N=6

2011
Implemented
Alpha site PHO
N=3700
Medicare
Advantage

2012
Additional
N=4

2013
32% Population
in “Shared
Savings”
sites