

Medical Home Evaluations: Past, Present & Future

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The Effects of the Patient-Centered Medical Home in a Multi-Payer, Multi-Provider Community

November 2014

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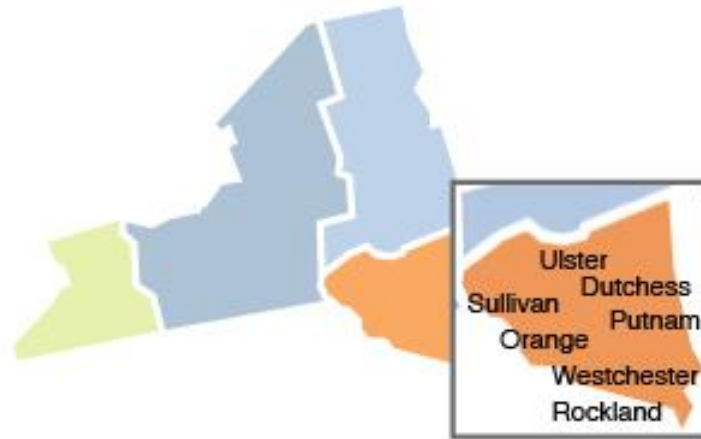
Associate Director for Research, Center for Healthcare Informatics and Policy
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The Hudson Valley Initiative

- Broad agenda to transform health care
- Included Patient-Centered Medical Home (PCMH) transformation for participating practices
 - All PCMH practices also had electronic health records (EHRs)
 - Practices underwent transformation in 2009
 - All recognized by National Committee for Quality Assurance as Level III practices



The Hudson Valley Initiative



Taconic IPA

THiNC
Taconic Health Information Network and Community

 **MedAllies**
Integrated Data. Innovative Technology

Other Key Participants

Funding for evaluation:



Participating health plans:



Our Evaluation

- Included primary care physicians who were members of the Taconic Independent Practice Association and used aggregated claims data
- Had 3 study groups

Paper



Electronic health records
(EHR)



EHRs with PCMH
transformation (PCMH)



Methods

- Design: Longitudinal cohort study (2008 – 2010)*
- Sample: 675 primary care physicians, 312 practices
- Outcomes:
 - 10 HEDIS quality measures
 - 7 healthcare utilization measures
- Accounted for: 8 physician characteristics, 4 patient characteristics, multi-level clustering

* 5-year version (2008 – 2012) just submitted for publication

**PCMH and Quality:
Adjusted Odds of Receiving
Recommended Care Overall,
(N = 142,932 patients)**

Change in quality over time (2010 vs. 2008) by study group	Odds Ratio (95% confidence interval)	P-value
PCMH vs. Paper	1.07 (1.03, 1.11)	<0.001
PCMH vs. EHR	1.06 (1.01, 1.11)	0.009
EHR vs. Paper	1.01 (0.97, 1.05)	0.68

IMPROVING PATIENT CARE

ORIGINAL RESEARCH

The Patient-Centered Medical Home, Electronic Health Records, and Quality of Care

Lisa M. Kern, MD, MPH; Alison Edwards, MStat; and Rainu Kaushal, MD, MPH

Conclusion: The PCMH was associated with modest quality improvement. The aspects of the PCMH that drive improvement are distinct from but may be enabled by the EHR.

EDITORIAL

Annals of Internal Medicine

Is There Value in Medical Home Implementation Beyond the Electronic Health Record?

Robert J. Reid, MD, PhD

Michael L. Parchman, MD, MPH

Group Health Research Institute
Seattle, Washington

PCMH and Healthcare Utilization

- Adjusted difference-in-differences in healthcare utilization per 100 patients with 1 year of follow-up post-PCMH implementation
 - Significantly fewer specialist visits among patients in the PCMH group
 - No significant differences between the EHR and paper groups

* < 0.05, provider-level analysis with N = 275 total.
Manuscript accepted for publication (in press).

Next Study

- We have added 2 additional years to the follow-up period for a total of 5 years (2008 – 2012)
 - Outcomes for quality, healthcare utilization and cost

PCMH as the Commencement: Recognition Is the Beginning



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Thank you.

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The Evidence Base for PCMH and Evolving Strategies for Measuring Success

Michael Bailit
PCPCC 2014 Fall Conference
November 12, 2014

bailit
health
PURCHASING

The Pennsylvania Chronic Care Initiative

- The Pennsylvania Chronic Care Management, Reimbursement and Cost Reduction Commission was established by Governor Rendell's Executive Order in May 2007.
- The state convened a multi-stakeholder process to design and oversee the initiative.
- Implementation occurred through four regional rollouts, with the Southeast first (May 2008) and the Northeast last (October 2009).
- In January 2012 Medicare joined the CCI via the MAPCP demonstration in these two regions.

Key Initiative Characteristics

- The model design varied (and evolved) by region based on learned experience and stakeholder input.
- A learning collaborative designed around the Chronic Care Model, with initial focus on chronic illness management.
- Practices given annual clinical quality improvement targets, performance tracked online.
- Participation by commercial and Medicaid payers using a standard contract and rates.
- Shared savings and care management introduced in the Northeast first in 2009, and then in the Southeast in 2012.
- Variation by region in provider type, leadership and payer level of engagement and practice support.

Multiple Evaluations

- “There was **significant improvement** in the percentage of patients who had evidence-based complications screening and who were on therapies to reduce morbidity and mortality (statins, angiotensin-converting enzyme inhibitors). In addition, there were **small but statistically significant improvements** in key clinical parameters for blood pressure and cholesterol levels, with the greatest absolute improvement in the highest-risk patients.”

“Multipayer Patient-Centered Medical Home Implementation Guided by the Chronic Care Model” Gabbay et al. *Joint Commission Journal on Quality and Patient Safety*, June 2011

Multiple Evaluations

- “There is an apparent and identifiable focus on patient-centered care.”
- “We observed a clear commitment to reducing hospital readmissions and emergency department visits.”
- There is a clear focus on patient-centered outcomes. ‘Working the bundles’ is a phrase we heard often.”
- “Practices that do not have a strong physician champion who supports the medical home/CCI approach will experience great difficulties immediately and these will persist.”

“The Pennsylvania Chronic Care Initiative: An Assessment of the Process of Implementation” Graduate School of Public Health, University of Pittsburgh, July 2013

But one garnered national attention...

- Friedberg et al. “Evaluating a multipayer medical home intervention” *JAMA* February 26, 2014



And this is what followed...

- “Study Finds Limited Benefit to Some ‘Medical Homes’” – *New York Times*
- “Study Questions Benefits of 'Medical Home' Programs for Chronically Ill” – *Wall Street Journal*
- “RAND Study Casts Doubt on Medical Home Model's Effectiveness” – *California Healthline*
- “Popular U.S. health reform plan may not cut costs, boost quality: study” – *Chicago Tribune*

What did RAND find in Southeast PA?

- Pilot practices increased their adoption and use of medical home capabilities
- Trend towards positive effects on targeted quality measures, but not reaching statistical significance
 - Exception: statistically significant improvement on nephropathy monitoring in diabetes
- No impact on utilization

What did RAND find in Northeast PA?

- Paper submitted to a peer-reviewed journal but not yet published.
- Results were different from in the Southeast, *and the goals of the Chronic Care Initiative were generally much more fully achieved.*
- The results are still preliminary since they haven't made it through the peer review process yet.



So...what can we learn from this?

1. Bad news loves a headline.
2. One study is one study.
3. We learn by doing, erring and improving.
4. The question we need to pursue isn't just what succeeded or didn't, but *why*?
5. When statistical significance is viewed as a sharp line and not a sliding scale of confidence, we miss important information.
6. Success will come from gritty persistence to hone and perfect models.

Moving Toward Measuring The Triple Aim

Measuring Service, Cost and Quality In
Search Of Better Outcomes For All

Bruce Bagley, MD
President and CEO
Transfor**MED**

Today's Conversation

- ▶ Brief description of the CMS Innovation Center Award and **Medical Neighborhood** project
- ▶ **Data sources** for the Triple Aim calculation
- ▶ All payer data set vs. Adequate sample
- ▶ Availability of comparison data and benchmarks
- ▶ **“Motivational” data**
- ▶ Preliminary results

Research and Development at TransforMED



Comprehensive Primary Care (CPC)

Providers

Patients

Payers

Health
Systems

HCIA Medical Neighborhood



ACO Learning and Diffusion

Best practices



Case Study-Medical Neighborhood

- ▶ Partners in the PCMN project
 - **VHA**- Community convener
 - **Phytel**- “Bolt-on” registry and quality reporting tool
 - **Cobalt-Talon**- Data partner for CMS claims flat file
- ▶ 15 Communities (90 practices)
 - **Year One**-Ramp up PCMH capabilities and get data
 - **Year Two**-Report on service, cost and quality
 - **Year Three**-Spread to broader community
- ▶ Feedback to providers at the NPI level
 - Patient experience
 - Clinical quality
 - PMPM total cost of care
 - Clinician and Staff satisfaction



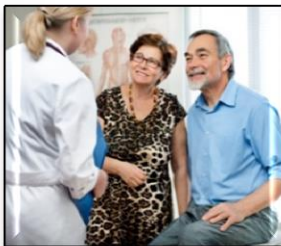
“Triple Aim plus One”

Project Goals By June 2015



Reduce the Total Cost of Health Care for Medicare and Medicaid Beneficiaries by \$49.5 Million

Improve Health of Eligible Population Demonstrated by an Average of 15% with at least 3% Improvement in Each Selected Quality Measure



A 25% Improvement in Patient Experience

Demonstrate Ability to Scale to Additional Practices within Each Community



Data Considerations-Claims

- ▶ Medicare claims data in a flat file format
 - 2010, 2011 base years then 2012 and beyond, monthly refresh with quarterly reports
- ▶ Always “old news”
- ▶ Provides an adequate sample to identify practice patterns and high cost patients (see above)
- ▶ Patient identifiable information available at the practice level
- ▶ No commercial payer data available in this project

Data Considerations-Quality and Service

- ▶ Quality data extracted from the EMR
- ▶ Practice provided with chronic illness POC registry and outreach capability
- ▶ Metrics followed:
 - 12 Clinical quality metrics
 - 10 Practice process measures
 - 3 patient experience measures
 - ◆ Access-Third next available appointment
 - ◆ Access-Extended office hours
 - ◆ Patient satisfaction surveys

Patient Experience of Care

- ▶ Only real outcome measure regarding service
- ▶ Multiple methods in play
 - CAHPS, Press-Ganey, PEAT, home grown
 - No common questions
- ▶ Expensive to conduct properly
- ▶ Has not been useful to drive change
- ▶ Very little change over time in results...
 - 85% positive responses

“Would you refer family or friends to this practice (clinician)?”

Cost of Care Data

- ▶ From Medicare Claims at the **NPI level**
 - Total cost of care on a PMPM basis
 - ER visits per 1000 per year
 - Bed days per 1000 per year
 - Milliman “**well managed benchmark**” used for comparison along with community and project averages
- ▶ Patient level data available to practices
- ▶ Cave Grouper method used to determine **efficiency** of specialty care
 - Help PCPs determine “high value referral”

“Motivational Data”

- ▶ Report out data that sparks the **competitive spirit** among clinicians
- ▶ Must have good **face validity**
- ▶ Professionalism-must be **clinically relevant**
- ▶ Within locus of control for clinicians
- ▶ Focus on a **small number** of process and workflow changes at a time
- ▶ Work/life balance

The “WAC” Measure- Work After Clinic

The Triple Aim Measure

- ▶ Aggregate score for service, cost and quality
- ▶ Approximates the value equation
- ▶ Weighted contribution for each component
- ▶ Enables comparisons within and across markets
- ▶ Allows trending over time for improvement work

**1/PMPM
X 100K**

Total Cost of Care PMPM	Quality	Pt Experience	Staff Satisfaction		TA Score
825.00	75%	75%	75%	=	51
815.00	77%	77%	77%	=	56
805.00	85%	80%	80%	=	68
800.00	75%	85%	85%	=	68
775.00	90%	80%	85%	=	79

Preliminary Results

- ▶ One-Half national average PMPM cost at the **outset**
- ▶ Project Practices held spending to **0.2% increase** in PMPM with 4.1% predicted increase by CMS between 2012 and 2013
- ▶ Practices **decreased** their inpatient PMPM expenditures by \$25 between 2012 and 2013, saving \$18.6 Million
- ▶ Professional services payments up by \$9 PMPM
- ▶ Patient experience of care remained the same
- ▶ Same day appointment availability up 40%
- ▶ Extended office hour availability up 60%

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ER Visits

Tools				Patient Profile	Current Condition	Medicare Paid \$	Risk	ER Visits	Providers Seen	<30 Day Re	+
Page-by Provider PCMH Related Practi...											
Patient Selector				Servicing ER							
Patient	Cases	Medicare Paid \$		Provider Service	Cases	Medicare Paid \$					
*** ** nnnnnnn0nnnn0unn	24	\$29,704			8	\$12,219					
*** ** nnnnnnn0vcFnt0c	3	\$2,084			6	\$7,016					
*** ** nnnnnnn3v03So03	4	\$3,640			4	\$3,027					
*** ** nnnnnnn3vuFv3to	4	\$2,797			4	\$4,757					
*** ** nnnnnnn3nnFF00vv	3	\$152			2	\$2,685					
*** ** nnnnnnn0ocov3tt	3	\$4,961									
*** ** nnnnnnn3t03unnt	3	\$2,597									
*** ** nnnnnnn3v03So3o	3	\$3,340									
*** ** nnnnnnn3vFvoFnt	3	\$2,398									
*** ** nnnnnnn3vStvSuS	3	\$999									
*** ** nnnnnnn3vuutSo	3	\$2,220									
*** ** nnnnnnn3vvuc3nc	3	\$902									
*** ** nnnnnnnnnStFcct	3	\$522									
*** ** nnnnnnnnucvucFu	3	\$1,454									
*** ** nnnnnnnSuonuSt0	3	\$5,984									
*** ** nnnnnnnnF0v3FS	3	\$1,128									
*** ** nnnnnnn0ntntcF	2	\$818									
*** ** nnnnnnnCuSStuScS	2	\$186									
*** ** nnnnnnn003tF0ou	2	\$264									
*** ** nnnnnnn0ocoFo3u	2	\$357									
*** ** nnnnnnn33FScono	2	\$1,659									
*** ** nnnnnnn3Fvvc3Sc	2	\$1,417									
*** ** nnnnnnn3SnFnnn3	2	\$3,507									
*** ** nnnnnnn3vS33Ft3	2	\$397									
*** ** nnnnnnn3vScSnSF	2	\$4,707									
*** ** nnnnnnn3vt0ov3F	2	\$5,813									
*** ** nnnnnnn3vuocSc0F	2	\$861									
*** ** nnnnnnn3vuotc3o	2	\$1,071									
*** ** nnnnnnn3vuSnnFn	2	\$1,298									
*** ** nnnnnnn3vuvFtoS	2	\$6,265									
*** ** nnnnnnn3vvucu03	2	\$7,950									

Timeline View			
Incurred Date	Diag 1 (Prncpl)	Provider Service	Medicare Paid \$
5/10/2013	30000 ANXIETY STATE, UNSPECIFIED		\$998
6/13/2013	29680 MANIC-DEPRESSIVE PSYCHOSIS, UNSPECIFIED		\$568
6/22/2013	79902 HYPOXEMIA		\$1,915
7/9/2013	78659 OTHER CHEST PAIN		\$442
7/16/2013	29680 MANIC-DEPRESSIVE PSYCHOSIS, UNSPECIFIED		\$817
8/1/2013	29680 MANIC-DEPRESSIVE PSYCHOSIS, UNSPECIFIED		\$1,075
8/11/2013	5521 UMBILICAL HERNIA WITH OBSTRUCTION		\$4,385
8/13/2013	78900 ABDOMINAL PAIN, UNSPECIFIED SITE		\$813
8/20/2013	33818 OTHER ACUTE POSTOPERATIVE PAIN		\$1,612
8/31/2013	7802 SYNCOPE AND COLLAPSE		\$968
9/2/2013	30000 ANXIETY STATE, UNSPECIFIED		\$1,557
9/18/2013	30000 ANXIETY STATE, UNSPECIFIED		\$847
10/10/2013	30000 ANXIETY STATE, UNSPECIFIED		\$919

Questions



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