The Patient-centered Medical Home: Thinking Ahead to Implementation

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October 8, 2009
Agenda

• The state of primary care and the PCMH
• The current landscape of PCMH demonstrations
• Envisioning how the PCMH fits in
Primary Care

Primary care is the provision of integrated, accessible health care services by clinicians who are accountable for:

• addressing a large majority of personal health care needs
• developing a sustained partnership with patients
• practicing in the context of family and community

First contact care characterized by:

- Accessibility
- Whole Person Orientation
- Comprehensiveness
- Continuity
- Coordination/Integration
The Interdependence of Primary Care

### Patient Attitudes Towards Primary Care Physicians and Specialist Use

<table>
<thead>
<tr>
<th></th>
<th>Agree (%)</th>
<th>Disagree (%)</th>
<th>Don’t Know or Uncertain (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value having one primary care physician</td>
<td>94</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Values PCP participation in decision to see specialist</td>
<td>89</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Can decide whether to see PCP or specialist for a new problem for myself</td>
<td>46</td>
<td>28</td>
<td>26</td>
</tr>
</tbody>
</table>

### PCP versus Specialist Preference as First-Contact Physician for Selected Medical Problems

- Cough and Wheezing
- Arthritis in Knee
- Blood in Stool

Source: Grumbach K et al., JAMA; 281(3): 261-266.
Use of Primary Care Services

Generalist Physician Involvement in Care (including practitioners in Family Medicine, General Internal Medicine, and General Pediatrics)

The State of Primary Care

- Patients want a primary care physician
- Primary care is associated with:
  - Lower total expenditures
  - Better prevention
  - More satisfied patients
- The need for primary care has never been greater
  - Aging population
  - Increasingly complex patients
  - Need for coordination among multiple providers/settings of care
Yet, Primary Care is Threatened

- Low reimbursement rates
- A payment system that is not designed for current practice
- Excessive administrative hassles
- Aging work force
- Few current US Medical students will enter primary care
Projected Generalist Supply: Adult Care

EXHIBIT 4
Care For Adults: Projected Percentage Change In Workload And Number Of Generalists, 2005–2025

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent change relative to 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>0</td>
</tr>
<tr>
<td>2010</td>
<td>5</td>
</tr>
<tr>
<td>2015</td>
<td>10</td>
</tr>
<tr>
<td>2020</td>
<td>15</td>
</tr>
<tr>
<td>2025</td>
<td>20</td>
</tr>
</tbody>
</table>

SOURCES: Data on workload (visits) are from the authors’ analysis of data from the National Ambulatory Medical Care Survey (NAMCS), combined 2003–2005 data. Data on supply are from the authors’ calculations using the Physician Supply Model, Bureau of Health Professions.


Reinventing Primary Care

• “Current care systems cannot do the job. Trying harder will not work. Changing systems of care will.”

Institute of Medicine. Crossing the Quality Chasm.
The Patient-Centered Medical Home

- Joint Principles adopted March 2007
- Major primary care organizations
  - American Academy of Family Physicians (AAFP)
  - American Academy of Pediatrics (AAP)
  - American College of Physicians (ACP)
  - American Osteopathic Association (AOA)
- Based on principles of each organization
  - AAP Medical Home
  - AAFP Personal Medical Home
  - ACP Advanced Medical Home
The Patient-Centered Medical Home

- Personal Physician
- Physician Directed Medical Practice
- Whole Person Orientation
- Care is Coordinated and/or Integrated
- Quality and Safety
- Enhanced Access
- Payment Reform
Key Aspects of Health Reform

- Expanding access
- Comprehensive delivery system redesign

Enhanced primary care
National Patient-Centered Medical Home Demonstration Activity

Source: PCPCC
The Patient-Centered Medical Home

- Personal Physician
- Physician Directed Medical Practice
- Whole Person Orientation
- Care is Coordinated and/or Integrated
- Quality and Safety
- Enhanced Access
- Payment Reform
Implementing the PCMH

- Safety and Quality
- Care is coordinated and integrated
- Whole Person Orientation
- Personal Physician
- Enhanced Access
- Physician Directed Practice
- Payment for Added Value

Caryl J. Heaton D.O.  http://thepcmh.org/yahoo_site_admin/assets/images/Slide18.299151532_std.jpg
General Aims

• Gather detailed information on existing PCMH demonstration programs

• Characterize existing demos based on key design elements

• Describe evaluation design and measures used by demos
Inclusion Criteria

(1) Payment reform from external payers

(2) Currently active or rollout date before December 31, 2009

(3) Project not primary care case management (PCCM) or restricted to particular disease
Methods

*Structured interview tool using these domains:*

- Project history, timeline, and participants
- Practice requirements and selection process
- Medical home recognition
- Payment structure
- Transformation process
  - Joint Principles emphasized
- Evaluation design
PCMH Pilot Selection

91 pilots were identified

- 30 pilots in very early planning stages excluded
- 16 case/disease management pilots excluded
- 19 pilots lacking payment reform excluded

26 pilots were interviewed
Overview of Current Demonstrations

• 17 states
  - AZ, CO, GA, LA, ME, MD, MI, NH, NY, NC, ND, OH, OR, PA, RI, TN, VT

• Genesis
  - Local efforts involved with primary care reform (18)
  - State was the convening entity (7)
  - Medicare Pilot (1)

• Payer type
  - 16 Single Payer (64%)
  - 9 Multi-Payer (36%)
## Overview of Current Demonstrations

<table>
<thead>
<tr>
<th></th>
<th>Range</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Practices</td>
<td>2 - 1200</td>
<td>16</td>
</tr>
<tr>
<td>Number of Physicians</td>
<td>7 - 3800</td>
<td>84</td>
</tr>
<tr>
<td>Number of Patients</td>
<td>720 - 1,700,000</td>
<td>30,000</td>
</tr>
<tr>
<td>Patients Covered (%)</td>
<td>5 - 100%</td>
<td>40%</td>
</tr>
</tbody>
</table>
## Totals for Current Demonstrations

<table>
<thead>
<tr>
<th></th>
<th>All</th>
<th>Trimmed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practices</td>
<td>~3,000</td>
<td>456</td>
</tr>
<tr>
<td>Physicians</td>
<td>~13,500</td>
<td>3146</td>
</tr>
<tr>
<td>Patients</td>
<td>~5,300,000</td>
<td>~1,800,000</td>
</tr>
</tbody>
</table>
## Practice Selection

<table>
<thead>
<tr>
<th>Practice Selection</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-selected practices</td>
<td>44%</td>
</tr>
<tr>
<td>Application Process</td>
<td>56%</td>
</tr>
<tr>
<td></td>
<td>[Mean Acceptance Rate: 53%]</td>
</tr>
<tr>
<td>Control Practices</td>
<td>32%</td>
</tr>
<tr>
<td>Entry Criteria</td>
<td></td>
</tr>
<tr>
<td>NCQA PPC-PCMH:</td>
<td>24%</td>
</tr>
<tr>
<td>MHIQ/other:</td>
<td>16%</td>
</tr>
<tr>
<td>IT Entry Requirement</td>
<td>12%</td>
</tr>
<tr>
<td>Minimum Practice or Panel Size</td>
<td>44%</td>
</tr>
</tbody>
</table>
Use of NCQA PPC-PCC Tool

- 84% required use at some point
- 24% required NCQA tool for entry
- 56% required NCQA tool for payment

NCQA PPC Goal by end of demo:
- Level 1: 12%
- Level 2: 12%
- Level 3: 12%
## Payment Models

<table>
<thead>
<tr>
<th>Payment Model</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per Person Per Month (PPPM) Payments</td>
<td>96%</td>
</tr>
<tr>
<td>Range of PPPM Payments</td>
<td>$0.50 to $9.00</td>
</tr>
<tr>
<td>Risk- Adjust PPPM Payments</td>
<td>28%</td>
</tr>
<tr>
<td>Adjust PPPM Payments by NCQA Level</td>
<td>32%</td>
</tr>
<tr>
<td>Range of Additional Revenue per MD/yr</td>
<td>$785 to $71,985 (median $21,600)</td>
</tr>
<tr>
<td>Upfront or Start-up Payments</td>
<td>44%</td>
</tr>
<tr>
<td>Additional non-PPPM payments</td>
<td>40%</td>
</tr>
<tr>
<td>Incorporate Bonus Payments</td>
<td>84%</td>
</tr>
</tbody>
</table>
## Practice Transformation

<table>
<thead>
<tr>
<th>Transformation Model</th>
<th>Consultative: 36%</th>
<th>CCM/IHI: 28%</th>
<th>Combo: 8%</th>
<th>Learning Collaborative: 60%</th>
<th>None: 28%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of facilitator</td>
<td>Internal: 36%</td>
<td>External: 40%</td>
<td>None: 32%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New personnel</td>
<td>On-site: 36%</td>
<td>Shared: 8%</td>
<td>None: 56%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upfront Transformation Funds</td>
<td>Upfront funding: 56%</td>
<td>Covered NCQA tool fees: 40%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus of Improvement</td>
<td>General: 36%</td>
<td>Disease-specific (eg DM, CHF, Asthma): 20% – 52%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Current Demonstrations Vary

- Number of practices
- Number of physicians
- Number of payers
- Populations served
- Payment models and amount of marginal payments
- IT functionality
- Timing
Context is Important

- Natural continuation of prior QI or chronic care initiatives
- Many practices pre-selected
- Many demos are small
- Capabilities (EMRs, registry functionality) likely to be important
Payment is Important

- Amount of marginal revenue varied greatly
- Uses of funds
  - Increase PCP take home pay
  - Pay for practice infrastructure
- Are up front costs covered?
- Single v. multi-payer
  - Single model v. general theme
  - Transformation won’t happen for small population
“Oh, if only it were so simple.”
Transformation

• Consultative model
  – Substantial variability in:
    • Practices per consultant
    • Face time
    • Other dedicated resources
• Chronic Care Model/QICs
  – Population of focus
  – Small incremental changes
• Embedded case management
PPC-PCMH

- De facto gold standard
- Entry criteria versus a goal?
- External benchmark
- Substantial up front costs (both time and $)
- Currently under evolution
Is the PCMH Patient Centered?

- Patients rarely involved in demonstration design
- Patients rarely involved in practice redesign or transformation

Lack of shared understanding of what patient (or family) centered is
Conclusions

- Substantial enthusiasm for the PCMH reflected in large number of demonstrations
- Heterogeneity will inform what we learn from evaluations
- …but idiosyncratic aspects may limit generalizability
- Evaluation design needs to be considered early in the process
How Does the PCMH Fit In?

Patient-Centered Medical Home

Sub-specialist and Ancillary Services

Insurer

Hospital

Data Center
Relationships

- Cannot be one way—the PCMH requires information from specialists...as well as a common understanding
- But specialists and institutions might not face the same incentives
Potential Mechanisms

- Explicit financial arrangements
- Rules (whether external or imposed)
- Selection and partnership
A Logical Next Step

- Accountable Care Organizations
- PCMH as the basis for hospital-centered networks
- Data (from here) suggest that such organizations might be tightly linked
- But some are more likely to be conducive to functioning as a PCMH
Can Network Science Inform this Debate?

• Social networks are representations of information sharing between actors in a system
• Such information sharing influences behavior of close associates
• Nascent area of exploration in health care, but many potential applications
Our Approach—Pilot Work

- Construct social networks based on patient sharing
- Derived from 100% Medicare files (2006)
- Dartmouth methods used to assign MDs to hospitals (EHMS)
- Patients assigned to MDs based on plurality algorithm—restricted to PCPs
Patient Assignment

- Starting N - 7,038,558 patients
- PCP assigned using E+M claims for pcp docs – 3,985,511
- PCP assigned using any kind of carrier claim for pcp docs – 262,925
- ~4.1 Million with assigned PCPs
## Selected Network Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Pts</th>
<th>MD-Hosp</th>
<th>% In</th>
<th>Total $</th>
<th>Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMC</td>
<td>4333</td>
<td>337</td>
<td>15.9</td>
<td>$79.6</td>
<td>.56%</td>
</tr>
<tr>
<td>NWH</td>
<td>6669</td>
<td>202</td>
<td>8.7</td>
<td>$68.4</td>
<td>.52%</td>
</tr>
<tr>
<td>LGH</td>
<td>3869</td>
<td>105</td>
<td>9.6</td>
<td>$56.0</td>
<td>2.65%</td>
</tr>
<tr>
<td>Nash</td>
<td>1898</td>
<td>53</td>
<td>6.1</td>
<td>$68.2</td>
<td>1.85%</td>
</tr>
</tbody>
</table>
Conclusions

- Network science might be useful for defining and managing ACOs
- There appear to be important differences among EHMS networks
- Some may be better prepared than others to become ACOs
- …but lots more work is needed
Summary

• Evidence suggests that primary care is both valued and important
  – Patients want a PCP
  – Primary care is associated with desired health outcomes and lower expenditures
• The PCMH represents one potential solution to this problem…but sound evidence needs to inform policy
• Network science may be useful in determining where and how PCMHs link to the rest of the health care system
How Do We Achieve Long Term Success?