Patient-Centered Medical Home: Integrating Medication Management to Optimize Adherence Outcomes in a PCMH
The Role of Medication Management in a Patient-Centered Medical Home

David W. Moen, MD
Medical Director
Care Model Innovation
Fairview Health Services
Disclosures

• The faculty reported the following financial relationships or relationships to products or devices they or their spouse/life partner have with commercial interests related to the content of this CME activity:
  – David Moen, MD
    • No financial relationships to report
Case Study: Fairview Health Services

- Not-for-profit organization established in 1906
- Partner with the University of Minnesota since 1997
- 22,000+ employees
- 1,900 aligned physicians
- 8 hospitals/medical centers (1,515 staffed beds)
- 49 primary care clinics
- 55-plus specialty clinics
- 26 senior housing locations
- 28 retail pharmacies and much more

2008 data
- 2.7 million outpatients served
- 82,551 inpatients served
- $425.1 million community contributions
- Total assets of $2.2 billion
- $2.6 billion total revenue
Patient-Centered Medical Home (PCMH) Core Concepts

Care that is:

“accessible, accountable, coordinated, comprehensive, and continuous care in a healing physician-patient relationship over time”
A move from

*reactive, episodic management of individuals*

to

*proactive, continuous management of a population*
Why Primary Care?

• In the US and Britain, each additional primary care physician per 1000 is associated with a decrease in mortality of about 5%\textsuperscript{1A}

• Adults with a primary care physician as their personal physician
  – had 33% lower costs of care\textsuperscript{1B}
  – were 19% less likely to die\textsuperscript{1B}

• Primary care physician supply has been consistently associated with improved health outcomes for conditions like cancer, heart disease, stroke, infant mortality, low birth weight, life expectancy, and self-rated care\textsuperscript{2}

\textsuperscript{1A} Adjusting for limiting long-term illness and for various demographic and socioeconomic characteristics,
\textsuperscript{1B} Controlling for age, gender, income, insurance, smoking, perceived health (SF-36) and 11 major health conditions
\textsuperscript{2} Barbara Starfield, Primary Care Policy Center, John Hopkins Bloomberg School of Public Health
The principles were written and agreed upon by the four Primary Care Physician Organizations – the American Osteopathic Association, the American Academy of Family Physicians, the American Academy of Pediatrics, and the American College of Physicians.

<table>
<thead>
<tr>
<th>PRINCIPLES</th>
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</thead>
<tbody>
<tr>
<td>Ongoing relationship with personal physician</td>
</tr>
<tr>
<td>Physician directed medical practice</td>
</tr>
<tr>
<td>Whole person orientation</td>
</tr>
<tr>
<td>Coordinated care across the health system</td>
</tr>
<tr>
<td>Quality and safety</td>
</tr>
<tr>
<td>Enhanced access to care</td>
</tr>
<tr>
<td>Payment recognizes the value added</td>
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</tbody>
</table>

February 2007
Medical Home Core Processes

- Clinical visits on demand
  - access
- Ability to understand and stratify patient population
  - by risk and by conditions
- Care management and coordination
  - based on risk/stratification
- Patient engagement/support
- Quality measurement/reporting
Key Success Factors

- Team-based approach
- Ability to reach out and enroll people
- Services targeted toward at-risk populations
- Use shared goals that support adherence and behavior change needed to drive results
Medical Homes Have the Potential to Improve Quality, Costs, and Satisfaction

Medical Homes yield promising results:

- 29% reduction in ED visits at Group Health
- 20% reduction in hospitalizations at Geisinger
- Achieve 94% of diabetes patients having ≥2 primary care visits per year for NC Medicaid
- Over $400 million saved over 4 years for NC Medicaid
- 3.8% total cost savings in Iowa
- 11% expected cost savings in VT
- $640/year saved per patient for the community at Intermountain

Country wide adoption:

- Multi-Payer pilot discussions/activity
- Identified pilot activity
- No identified pilot activity – 6 states

More than 40 states are involved in medical home pilot activity.
Medical Home Pilots Have Varied in Design and Impact

Comparison of PCMH Pilot Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>VA-CHF</th>
<th>Inter-mountain</th>
<th>Group Health</th>
<th>Geisinger</th>
<th>VA- Diabetes</th>
<th>North Carolina</th>
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<tbody>
<tr>
<td>Care Coordination</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Health IT</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>24/7 access*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Community Teams</td>
<td></td>
<td></td>
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<td></td>
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<td>✓</td>
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<tr>
<td>P4P</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>PMPM Payment</td>
<td></td>
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<td>✓</td>
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<td>Performance Evaluations</td>
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<td>✓</td>
<td>✓</td>
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<td>Transitional Care*</td>
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<td></td>
<td>✓</td>
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<tr>
<td>Specialist Involvement*</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>✓</td>
</tr>
<tr>
<td>Flex Scheduling*</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
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</tr>
<tr>
<td>Shared Savings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Hospitalization Reduction**</td>
<td>+33%</td>
<td>+3.3%</td>
<td>11%</td>
<td>20%</td>
<td>24%</td>
<td>34%</td>
</tr>
</tbody>
</table>

* Characteristics as reported
** % reduction from baseline 5

Better Performance
Today: Providing Care for the Sick

### FACE TO FACE WITH PATIENTS

<table>
<thead>
<tr>
<th>Check-in</th>
<th>Room</th>
<th>MD/NP/PA</th>
<th>Order</th>
<th>Check-out</th>
<th>Follow-up</th>
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<tbody>
<tr>
<td>Third party Payers</td>
<td>Patient Forms</td>
<td>Medication Refills</td>
<td>Care Coordination</td>
<td>Paper Communications</td>
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<td>Regulatory</td>
<td>Patient Messages</td>
<td>Test Results</td>
<td>Mail/Email Communications</td>
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<tr>
<td>Phone calls to Patients</td>
<td>Follow-up Consultation</td>
<td>Patient Letters</td>
<td>Quality Management</td>
<td></td>
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</tr>
</tbody>
</table>

**Key Tasks**
- MD, PA, NP Key Tasks
- RN Key Tasks
- MA Key Tasks
Tomorrow: Keeping Patients Healthy

Multi-Disciplinary Team

**FACE TO FACE WITH PATIENTS**

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<th>MD/NP/PA</th>
<th>Order</th>
<th>Check-out</th>
<th>Follow-up</th>
</tr>
</thead>
</table>

- **RN Key Tasks**
  - MD, PA, NP Transition to review & approval, clinical decisions

- **MA Key Tasks**
  - MD, PA, NP Transition to review & approval, clinical decisions

**Prerequisite Processes**
- Med Reconciliation
- Std Rooming
- Std Room Set-up
- Std In-Basket Management
- MyChart sign-up/activation
- Problem Solving Methodology (PDSA)
- Communication Process (aka. Huddles, team design, operational meetings.)

**Key Tasks**

- **Adult Preventative**
  - Pre-visit planning
  - Shared documentation
  - Standard Care Guidelines

- **Chronic Care Packages**
  - CV suite and CKD
  - Population management
  - RN Management by protocol
  - Registry mgmt/ gaps in care

- **Chronic Care Packages**
  - Migraine, asthma, LBP
  - Condition-specific RN Triage
  - Condition-specific education
  - Develop patient self mgmt plan
  - Outreach

**Day Planner**

**CCN**

**MTM**

**Certified Ed intro**

**Paper Communications**
- Patient Messages

**Mail/Email Communications**
- Phone calls to patients

**Patient Letters**

**Follow-up Consultation**

**Quality Management**

**Third Party Payers**

**Patient Forms**

**Regulatory**

**Medication Refills**

**Care Coordination**

**Test Results**
Sample Positive Indicators

**MD Capacity Increase**

**Eagan Teamlet D**

**Patient Msg Handling**

<table>
<thead>
<tr>
<th>July Wk</th>
<th>Jul Wk</th>
<th>Aug Wk</th>
<th>Aug Wk</th>
<th>Aug Wk</th>
<th>Aug Wk</th>
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<tr>
<td>4</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>62%</td>
<td>8%</td>
<td>20%</td>
<td>3%</td>
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<tr>
<td></td>
<td></td>
<td>78%</td>
<td>73%</td>
<td>10%</td>
<td></td>
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<td></td>
<td></td>
<td>94%</td>
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**Improved Access**

**Northeast Clinic**

**Call Abandonment Rate**

<table>
<thead>
<tr>
<th>Date</th>
<th>Abandonment Rate</th>
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<tbody>
<tr>
<td>6/1-6/5</td>
<td>22%</td>
</tr>
<tr>
<td>6/8-6/12</td>
<td>33%</td>
</tr>
<tr>
<td>6/15-6/19</td>
<td>34%</td>
</tr>
<tr>
<td>6/22-6/26</td>
<td>31%</td>
</tr>
<tr>
<td>6/29-7/3</td>
<td>34%</td>
</tr>
<tr>
<td>7/6-7/10</td>
<td>31%</td>
</tr>
<tr>
<td>7/13-7/17</td>
<td>35%</td>
</tr>
<tr>
<td>7/20-7/24</td>
<td>33%</td>
</tr>
<tr>
<td>8/5/2009</td>
<td><strong>GO LIVE</strong></td>
</tr>
<tr>
<td>8/10-8/14</td>
<td>14%</td>
</tr>
<tr>
<td>8/17-08/21</td>
<td>13%</td>
</tr>
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</table>
Innovation Clinic Quality of Care Comparisons

Quality of Care Diabetes Management

Eagan Non-CMI Fairview Clinics

2008 Q1 09 Q2 09 Q3 09 Q4 09 Q1 10 Q2 10 Q3 10 Q4 10

41.4% 36.0% 36.2% 40.4%

30.1%

10% 20% 30% 40% 50% 60%
Patient-Centered Medical Homes and the Importance of Medication Management

- On a worldwide basis, the World Health Organization projects that only 50% of patients take medicines as prescribed.
- In the U.S., non-adherence affects patients of all ages, both genders, and is just as likely to involve higher-income, well-educated people as those at lower socioeconomic levels.
- Poor adherence is estimated to cost approximately $177 billion annually in total direct and indirect health care costs and includes:
  - Direct costs such as hospitalizations, ED visits, physician office visits, etc.
  - Indirect costs such as reduced productivity, increased absenteeism, increased mortality, etc.
How the Current Health Care System’s Interactions Affect Medication Use

Patient-Provider Communication
- The patient has a poor understanding of the disease, the benefits and risks of the treatment, or the proper use of the medication
- Physician prescribes an overly complex regimen for the patient

Patient Driven
- Poor access or missed clinic appointments
- Switching to a different formulary
- Lack of patient access to pharmacy
- High medication costs
- Forgetfulness
- Side effects

Provider Driven
- Poor knowledge of drug costs, formulary coverage
- Lack of knowledge of other medications prescribed
- Unfamiliarity with current guidelines

Successful Medication Management Requires A Team Approach

Prescriber compliance with clinical guidelines

Payer restrictions, increased drug costs & patient copays decrease utilization

Often affected by fear of adverse events, route of administration, etc.

Skipped doses due to forgetfulness, drug cost, side effects

Rx Written
Rx Received at Pharmacy
Rx Dispensed
Therapy Initiated
Adherence
Persistence

12% - 33% of prescriptions never reach pharmacy
22-24% take less dosage than prescribed
29% of patients stop Rx prematurely

Average month 12 persistence <50%

Medication Adherence Drop Off Points

75 % of patients don’t take Rx as prescribed

National Council on Patient Information and Education (1); National Community Pharmacists Association 12/15/06 (2).
Summary

• Managing populations requires new approaches, tools, and infrastructure

• The Patient-Centered Medical Home is an evolving foundation for patient centered preventive and chronic care management

• Medical home model done right leads to decreased total cost of care, improved outcomes, and improved patient experience