Medical Home Renovations...

• Revitalizing primary care: the medical home imperative
• The Patient-centered Medical Home: An Evolving Definition
• Medical Home Transformation: the Group Health Experience
• Spreading the Medical Home using Lean
The burning platform of primary care

- Access to primary difficult for many, particularly disadvantaged
- Quality of remains mediocre with many gaps
- Payment systems are antiquated. Many functions are unrewarded
- Evidence-base has become unmanageable for individual physicians
- Primary care is an unattractive career choice. Burnout common
Medical Home: a Concept in Evolution

<table>
<thead>
<tr>
<th>Joint Principles of Patient-Centered Medical Home 2007 (ACP, AAFP, AAP, AOA)</th>
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</thead>
<tbody>
<tr>
<td>1. Personal physician</td>
</tr>
<tr>
<td>2. Physician directed medical practice</td>
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<tr>
<td>3. Whole person oriented</td>
</tr>
<tr>
<td>4. Care is integrated &amp; coordinated</td>
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<tr>
<td>5. Assures quality &amp; safety</td>
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<td>6. Enhanced access</td>
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<td>7. Payment Reform</td>
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</table>
Medical Home: a Concept in Evolution

Reinvigorating Core Attributes of Primary Care
(access, longitudinal relationships, comprehensiveness, coordination)

System supports for Chronic Illness Care & Prevention
(info systems, practice redesign, self mgmt support, decision support)

Advanced information technologies
(EMRs, registries, reminders, patient portals)

Supportive physician payment methods
(promotes medical home goals, not simply volume)
The Chronic Care Model (CCM)

(Wagner EH et al, Managed Care Quarterly, 1999. 7(3) 56-66)
Group Health’s Medical Home Experiment
About Group Health…

• Integrated health insurance & delivery system
• Founded in 1946
• Consumer governed, non-profit
• Membership: 628,000   Staff: 9,390
• Revenues (2008): $2.8 billion

• Multispecialty Group Practice
  • 26 primary care medical centers
  • 6 specialty units, 1 maternity hospital
  • 960 physicians
• Contracted network
  • > 9,000 practitioners, 39 hospitals

• Group Health Research Institute
  • 32 investigators
  • 235 active grants, $34 million (2008)
• Since its origin, Group Health organized around primary care
  
  Defined practice populations  Multi-disciplinary teams
  Specialty care gatekeeping  Salaried physicians

• In 2000s multiple reforms to improve access, efficiency, productivity
  
  “Advanced access”  Same-day appointing
  Leaner primary care teams  Direct specialty access
  RVU-based productivity incentives

• $40 million invested in electronic clinical information systems
  
  System-wide EMR
  Patient portal with secure messaging & lab results access
  Decision support tools, reminders & alerts

The medical home imperative

Utilization Trends 1997-2005 by Quarter

Access & Efficiency Reforms

Primary Care Visits

Specialist Visits

Inpatient Days

ER Visits

Inpatient Admits

Frequency

The medical home imperative

Inpatient & ER Utilization Trends 1997-2005 by Quarter

Inpatient Days
Inpatient Admits
Emergency Department

Access & Efficiency Reforms

ER Visits

Frequency

Increasing primary care physician burnout

“...the way in which [care] is structured, it has shifted such an increased amount of work onto primary care that it is not sustainable ... I’m actually looking to get out of primary care because I can no longer work at this pace.”

“The burnout rate among my colleagues is huge ... those of us that have managed to retain some semblance of balance do it by almost unacceptable levels of compromise, either for ourselves or what we define as good enough care.”

(Tufano et al, JGIM 2008;23:1778-83)

Looming primary care workforce crisis

• Many MD positions remained unfilled

• Shift to part-time practice

• Primary care MDs retiring earlier than specialists

• Most common reason for employment separation: high workload
The medical home imperative

There has to be a better way!
The relationship between the primary care clinician & patient is at our core; the entire delivery system will orient to promote & sustain.

The primary care clinician will be a leader of the clinical team, responsible for coordination of services, and together with patients will create collaborative care plans.

Care will be proactive and comprehensive. Patients will be actively informed and encouraged to participate.

Access will be centered on patients needs, be available by various modes, and maximize the use of technology.

Our clinical and business systems are aligned to achieve the most efficient, satisfying and effective experiences.
Revitalizing primary care

PCMH design:
Panel size
2,300 → 1,800

Appointments
30 min. → 20 min.

Clinical teams
Desktop time
E-technology
Medical home change components

PCMH Model

Point-of-care changes
- Calls redirected to care teams
- Secure e-mail
- Phone encounters
- Pre-visit chart review
- Collaborative care plans
- EHR best practice alerts
- EHR prevention reminders
- Defined team roles

Patient-centered outreach
- ED & urgent care visits
- Hospital discharges
- Quality deficiency reports
- e-health risk assessment
- Birthday reminder letters
- Medication management
- New patients

Management & payment
- Team huddles
- Visual display systems
- PDCA improvement cycles
- Salary only MD compensation
Group Health Research Institute conducted a 2 yr prospective, before-and-after evaluation comparing the pilot with 19 other Group Health clinics in western Washington State.
Medical home pilot evaluation

Evaluation measures:

- Patient experience
- Staff burnout
- Quality
- Utilization
- Cost

GroupHealth.
The Group Health Medical Home At Year Two: Cost Savings, Higher Patient Satisfaction, And Less Burnout For Providers

**ABSTRACT**

As the patient-centered medical home model emerges as a vehicle to improve the quality of health care and to control costs, a new service of Seattle-based Group Health Cooperative with its medical home pilot takes on added importance. This report examines the effects of the medical home prototype on patients’ experiences, quality of care, and total costs at twenty-two to twenty-four months after implementation. The results show improvements in patients’ experiences, quality of care, and clinician burnout through two years. Compared to other Group Health clinics, patients in the medical home experienced 20 percent fewer emergency visits and 6 percent fewer hospitalizations. We estimate total savings of $30.00 per patient per month twenty-one months into the pilot. We offer an operational blueprint and policy recommendations for adoption in other health care settings.

The Patient-Centered Medical Home Movement Why Now?

**COMMENTS**

Reid RJ et al, Health Affairs 2010;29(5):835-43
Larson EB et al, JAMA 2010; 306(16):1644-45
Reid RJ et al, Am J Manag Care 2009;15(9):e71-87
**Selected change components**

**Year 1:** 94% more emails, 12% more phone consultations, 10% fewer calls to consulting nurse

**Year 2:** Significant changes persisted

<table>
<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
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<tbody>
<tr>
<td>Secure email messages</td>
<td>↑</td>
<td>↑</td>
</tr>
<tr>
<td>Telephone encounters</td>
<td>↑</td>
<td>↑</td>
</tr>
<tr>
<td>Consulting nurse calls</td>
<td>↓</td>
<td>↓</td>
</tr>
</tbody>
</table>

Compared to controls:  
- ↑ Medical Home significantly higher
- ↓ Medical Home significantly lower
- ← Difference not significant
# Patient experience

Significantly higher scores for patients at Medical Home Clinic

<table>
<thead>
<tr>
<th>Quality of patient-doctor interactions</th>
<th>Year 1</th>
<th>Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared decision making</td>
<td><img src="image" alt="↑" /></td>
<td><img src="image" alt="→" /></td>
</tr>
<tr>
<td>Coordination of care</td>
<td><img src="image" alt="↑" /></td>
<td><img src="image" alt="↑" /></td>
</tr>
<tr>
<td>Access</td>
<td><img src="image" alt="↑" /></td>
<td><img src="image" alt="↑" /></td>
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<tr>
<td>Helpfulness of office staff</td>
<td><img src="image" alt="↔" /></td>
<td><img src="image" alt="↔" /></td>
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<tr>
<td>Patient activation/involvement</td>
<td><img src="image" alt="↑" /></td>
<td><img src="image" alt="↑" /></td>
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<tr>
<td>Goal setting/tailoring</td>
<td><img src="image" alt="↑" /></td>
<td><img src="image" alt="↑" /></td>
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Compared to controls:  
- ![↑](image) Medical Home significantly higher  
- ![↓](image) Medical Home significantly lower  
- ![↔](image) Difference not significant
Quality of care

Composite quality gains significantly greater for patients at Medical Home clinic across 22 indicators

<table>
<thead>
<tr>
<th>Mean difference of changes between pilot and control clinics</th>
<th>Year 1</th>
<th>Year 2</th>
</tr>
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<tbody>
<tr>
<td>100% performance</td>
<td>↑</td>
<td>↑</td>
</tr>
<tr>
<td>75% performance</td>
<td>↑</td>
<td>↑</td>
</tr>
<tr>
<td>50% performance</td>
<td>↑</td>
<td>↑</td>
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## Staff burnout

### Year 1: Marked improvement in burnout levels at Medical Home

### Year 2: Continued better scores at Medical Home; controls slightly worse

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<thead>
<tr>
<th></th>
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<tr>
<td>Emotional exhaustion</td>
<td>↓</td>
<td>↓</td>
</tr>
<tr>
<td>Depersonalization</td>
<td>⇧</td>
<td>⇧</td>
</tr>
<tr>
<td>Lack of personal accomplishment</td>
<td>⇧</td>
<td>⇧</td>
</tr>
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</table>

Compared to controls:  
- ↑ Medical Home significantly higher  
- ↓ Medical Home significantly lower  
- ⇧ Difference not significant
### Year 1:
29% fewer ER visits, 11% fewer preventable hospitalizations, 6% fewer but longer in-person visits

### Year 2:
Significant changes persisted

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<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Primary care visits (in person)</td>
<td>↓</td>
<td>↓</td>
</tr>
<tr>
<td>Emergency/urgent care use</td>
<td>↓</td>
<td>↓</td>
</tr>
<tr>
<td>Preventable hospitalizations</td>
<td>↓</td>
<td>↓</td>
</tr>
<tr>
<td>Total hospitalizations</td>
<td>↔</td>
<td>↓</td>
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- ↓ Medical Home significantly lower
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**Costs**

**Year 1:** No significant difference in total costs between Medical Home and control clinics.

**Year 2:** Significant utilization changes persisted. Lower patient care costs approached stat significance (~$10 PMPM; p=0.08)

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<tr>
<td>Primary care costs</td>
<td>↑</td>
<td>↑</td>
</tr>
<tr>
<td>Emergency/urgent care costs</td>
<td>↓</td>
<td>↓</td>
</tr>
<tr>
<td>Hospitalization costs</td>
<td>⇔</td>
<td>↓</td>
</tr>
<tr>
<td>Total PMPM</td>
<td>⇔</td>
<td>⇔</td>
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Compared to controls:  
- **↑** Medical Home significantly higher  
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Our learnings so far

*It is possible to improve outcomes, lessen burnout, and reduce costs but:*

- Investments in primary care are critical
- Requires fundamental change that is not easy.
- Physicians & care teams need to “own” the changes
- Including patient voices helps ground your efforts
- IT must be embedded in team workflows
- Capable & aggressive management
Our learnings so far

- **Financing**: investments made need to align with savings recouped

- **Reimbursement**: payments need to reward medical home activities & outcomes, not just volume

- **Education**: new skills needed (team work, quality improvement, behavioral medicine, virtual medicine)

- **IT**: meaningful use needs to incorporate patient perspectives
Based on pilot results, Group Health decided to invest $40 million and “spread” the medical home to 25 other clinics.

But new questions emerged:

- What were the key components of the redesign?
- Can they be generalized?
- Can similar benefits accrue when clinics don’t invent the work?
- What techniques & tools should we use to spread?
How Was Medical Home Spread?

Design Process

- RPIW’s
- Dissected pilot experience
- Designed standard work by engaging frontline teams

Spread Pilot

- Testing and improving the standard work elements at 3 other clinics
- Learning best practices to help future clinics with spread

Spread

- Each element rolled out across clinics (10 wks)
- Each element implemented before the next started
Spreading the medical home

1. Staged spread of practice change modules
   - Virtual Medicine
   - Care Management
   - Visit Preparation
   - Patient Outreach

2. Supported by changes to mgmt, staffing, & MD payment
   - Call Management
   - Team Huddles
   - Standard Mgmt Practices
   - Enhanced Staffing Model
   - Value-based MD Payment Model

Standardization & Spread using LEAN Techniques & Tools
In Process Measures by clinic and element

By element

By clinic
AHRQ R18 Grant – Mixed Methods Evaluation

Quantitative Component

- 60 month interrupted time series design
- Effect of PCMH transformation on cost, quality & staffing

Qualitative Study

- Staff & leader interviews, direct observation & patient focus groups
- Organizational & contextual effects on PCMH transformation
- Effect of PCMH transformation on patient experiences
Thank you!!

Rob Reid
reid.rj@ghc.org