High Functioning Teams in Primary Care

Christine M. Everett PhD, MPH, PA-C
July 2018
Goals and Objectives

• Goal 1: Identify factors to consider when deciding if primary care teams will work for your practice
  – Define team
  – Compare types of teams
  – Identify factors associated with effective teams
• Goal 2: Discuss current approaches to teams in primary care
  – Articulate principles of team implementation
  – Evaluate current primary care team designs and evidence of effectiveness
Expectations of Healthcare Teams

• Improve Access
  – Health professional shortages

• Improve Processes
  – Overcome fragmentation

• Improve Outcomes
  – Patient-benefit from a range of skill
  – Provider-reduce burn-out

• Lower Cost
  – Improve efficiency
Will Teams Work for Your Practice?
Physicians Working Together

**EXHIBIT 1**

Distribution Of US Physicians By Practice Size, 2009 And 2011

<table>
<thead>
<tr>
<th>Practice Size</th>
<th>2009</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solo</td>
<td>25%</td>
<td>18%</td>
</tr>
<tr>
<td>2-10 MDs</td>
<td>20%</td>
<td>24%</td>
</tr>
<tr>
<td>11-50 MDs</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>51-100 MDs</td>
<td>5%</td>
<td>8%</td>
</tr>
<tr>
<td>&gt;100 MDs</td>
<td>8%</td>
<td>13%</td>
</tr>
</tbody>
</table>

**SOURCE** Authors' analyses of Medicare administrative data. **NOTES** The figure shows the numbers of practices in 2009 and 2011 for each practice size. In 2009 there were 541,963 physicians, and in 2011 there were 580,573.

Physicians Working with PAs and NPs

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Percentage</th>
<th>Unadjusted difference</th>
<th>Adjusted differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>All primary care physicians</td>
<td>53</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice size</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2 physicians</td>
<td>36.3</td>
<td>Reference</td>
<td>Reference</td>
</tr>
<tr>
<td>3-10 physicians</td>
<td>59</td>
<td>22.74</td>
<td>16.55</td>
</tr>
<tr>
<td>11 or more physicians</td>
<td>80</td>
<td>43.74</td>
<td>33.25</td>
</tr>
</tbody>
</table>

Hing & Hsiao. In which states are physician assistants or nurse practitioners more likely to work in primary care? JAAPA 28 (9) (2015):46-53
Defining Team

“A group of two or more individuals, who have specific roles, perform interdependent tasks, are adaptable, and share a common goal”

Group-Team Continuum

Group

Pseudoteam

Team
## Comparison of Groups and Teams

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Group</th>
<th>Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accountability</td>
<td>Individual</td>
<td>Individual and collective</td>
</tr>
<tr>
<td>Commitment</td>
<td>Individual</td>
<td>Shared</td>
</tr>
<tr>
<td>Conflict resolution</td>
<td>Individual</td>
<td>Essential part of process</td>
</tr>
<tr>
<td>Creativity and contribution</td>
<td>Not confined to tasks</td>
<td>Within tasks</td>
</tr>
<tr>
<td>Effectiveness measures</td>
<td>Direct external assessment of individual performance</td>
<td>Direct</td>
</tr>
<tr>
<td>Interactions</td>
<td>Information sharing</td>
<td>Problem solving</td>
</tr>
<tr>
<td>Leadership</td>
<td>Shared, determined by task</td>
<td>Strong leader</td>
</tr>
<tr>
<td>Measure of productivity</td>
<td>Sum of individual bests</td>
<td>Single</td>
</tr>
<tr>
<td>Operation</td>
<td>Discuss, decide, delegate</td>
<td>Discuss, decide, collaborate</td>
</tr>
<tr>
<td>Ownership</td>
<td>Individual work</td>
<td>Whole project</td>
</tr>
<tr>
<td>Participative decision making</td>
<td>Optional</td>
<td>Expected</td>
</tr>
<tr>
<td>Personal development</td>
<td>Optional</td>
<td>Expected</td>
</tr>
<tr>
<td>Purpose</td>
<td>Discrete for each member</td>
<td>Devised by team and management</td>
</tr>
<tr>
<td>Size</td>
<td>Small or larger</td>
<td>Defined and small</td>
</tr>
<tr>
<td>Skills</td>
<td>May be overlapping</td>
<td>Discrete for each member and sometimes under development</td>
</tr>
<tr>
<td>Trust</td>
<td>Optional</td>
<td>Developed and essential</td>
</tr>
<tr>
<td>Understandings</td>
<td>Can be different</td>
<td>Work towards shared goals</td>
</tr>
<tr>
<td>Work products</td>
<td>Individual</td>
<td>Unified, more than the sum of parts</td>
</tr>
</tbody>
</table>

# Advantages and Disadvantages of Teams

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mutual learning opportunities</td>
<td>Incompatible team members</td>
</tr>
<tr>
<td>Workforce flexibility with cross-training</td>
<td>Team members must fit team and job</td>
</tr>
<tr>
<td>Potential for synergistic ideas and abilities</td>
<td>Some members may experience less motivating jobs</td>
</tr>
<tr>
<td>New approaches to tasks may be discovered</td>
<td>Incompatibility with cultural, organizational or labor norms</td>
</tr>
<tr>
<td>Social facilitation and support</td>
<td>Increased competition/conflict between teams</td>
</tr>
<tr>
<td>Increased communication/info exchange</td>
<td>Time loss due to socializing, coordination, consensus building</td>
</tr>
<tr>
<td>Potential to stimulate performance</td>
<td>Inhibition of creativity-group think</td>
</tr>
<tr>
<td></td>
<td>Less powerful evaluation and rewards</td>
</tr>
<tr>
<td></td>
<td>Social loafing or free-riding</td>
</tr>
<tr>
<td></td>
<td>Less flexibility in cases of replacement, turn-over or transfer</td>
</tr>
</tbody>
</table>

Adapted from Campion et. al. Relations between work team characteristics and effectiveness: A replication and extension. Personnel Psychology, 49 (1996): 429-452
Team Effectiveness Model

Adapted from Integrated (Health Care) Team Effectiveness Model (ITEM); Lemieux-Charles, McGuire 2006
Context

Social and Policy Context → Organizational Context
Social and Policy Context

• Policy
  – Regulation
  – Payment

• Social
  – Geographic location
  – Workforce availability
  – Capitalism
  – Prevailing views of justice
Organizational Context

• Goals
• Rewards/supervision
• Resources
• Training environment
• Information system
Organizational Context: Culture

“The way we do things around here and why we do them”

• Levels
  – Artifacts-observable behaviors
  – Espoused Values-
    • what people are willing and able to verbalize
    • Consistent artifacts+ espoused values=“authentic culture”
  – Assumptions
    • Contradictions between artifacts and espoused values
    • Unarticulated

• Cultures may not be uniform within an organization

Contextual Factors that Influence Team Design

• Social and policy context seen as barriers to ideal team design
  – “The amount of things that we’re required to do, increasing amount of things we’re required to do. Checking boxes to the point you feel like you’re not delivering care almost.”
  – “We get a lot of new NPs and PAs but as soon as they’re trained they get snapped up by another provider….And we start all over again.”
  – “…resources are so scarce....”

• Organizational context seen as facilitators to team design
  – “We’re a united front.”
  – “Each one of us individual provider[s], we provide..., cutting edge, really, medicine, but we’re different,...what she’s an expert on, I might not know much about. And vice versa.”
  – “What has helped us a lot is morning huddle....”

Team “Culture” is Associated with Lower Burnout in Primary Care

Principles of Implementation

Context

• Assess the greater social and political context
• Understand the culture(s) of your organization
• Use your culture’s strengths to make change
  – Shifting from “I” to “We” (Ghorob, Bodenheimer 2012)
Structure

Social and Policy Context → Organizational Context → Structure
Types of Teams

Different Roles

Multidisciplinary
“teamlet”

Interdisciplinary
“primary care provider+endocrinologist”

Similar Roles

Transdisciplinary
“Multiple primary care providers”
Structure - Key Factors

• Goals
• Task Type
  – Patient vs. Patient Population vs. Disease
  – Delivery Setting
• Task Features
  – Interdependence
  – Work cycle
• Team Composition
  – Size, age, gender, tenure
  – Diversity
  – Discipline
  – Role
Common Primary Care Team Designs

- **Provider + Nurse Dyads**
  - Provider (MD/DO/PA/NP)
  - Clinical staff member (MA/RN/LPN)

- **PA/NP + Nurse Dyads with Physician Lead**
  - MD
  - Provider (PA/NP)
  - Clinical staff member (MA/RN/LPN)

- **Provider + Nurse Dyads with Extensive Support Team**
  - Provider (MD/DO/PA/NP)
  - Clinical staff member (MA/RN/LPN)
  - Call center staff, social workers, and other care coordination staff assigned to teams

- **No Formal Teams**
  - No formal care teams. All clinical and non-clinical staff work together as needed to deliver care.

Team Members Need a Shared Understanding of Team Design

- Mixed methods study
- Population
  - 8 primary care clinics
  - 12 physicians, 8 NPs, 4 PAs, 2 CMAs, 2 RNs
- Results
  - 90% were on a team
  - 15% on multiple teams
  - Important within-clinic variations of definition of team design
  - 20% of providers reported other providers on their team, despite significant interdependence (patient sharing)
- Conclusion
  - Team goals may be elusive if team definition/membership is unclear or there is significant multiple team membership

Everett et. al. Primary care teams and coordination. Manuscript in preparation
Structure Innovations in Primary Care

- Expanded RN or CMA Roles
  - Rooming protocols
  - Standing orders
  - Health coaching
  - Care Coordination

- Scribing

- Electronic Health Record
  - Order entry
  - Inbox management

Team "Culture" and Structure Interact to Lower Burnout in Primary Care

Willard-Grace et. al. Team structure and culture are associated with lower burnout in primary care. J Am Board Fam Med (2014) 27: 229-238
Principles of Implementation Structure

• Multiple models exist
• Team structure should reflect
  – Culture
  – Current individuals in the clinic
  – Goals
  – Patient population
• Ensure a shared understanding of team structure
• Changing structure alone will not make you a team
• Consider aligning reward system with team structure
Process

• Teamwork
  – Communication
  – Collaboration
  – Coordination
  – Conflict
  – Leadership

• Task Work (Work of the Team)
  – Workload Sharing
  – Care Processes
Primary Care Clinicians Processes

• Providing preventive care to an average panel requires 7.4 hours a day (Yarnall 2003)

• 39% of day is spent outside the exam room (Gilchirst 2005)

• 191 tasks during an office visit (Wetterneck 2012)
Process Innovations in Primary Care

• Task work
  – Pre-visit Planning
  – Pre-appointment laboratory tests
  – Standing orders
  – In-box management
  – Prescription renewal reengineering

• Teamwork
  – Co-location
  – Huddles
  – Team meetings
Primary Care Teamwork

• Descriptions of approaches to communication
  – Huddles
  – Meetings

• Limited research on other components of teamwork
  – Collaboration
  – Coordination
  – Conflict
  – Leadership

Coordination

- Coordination = managing interdependencies
- Requires Time
- Mechanisms
  - Routines
  - Relational
  - Boundary Spanners
  - Meetings

Coordination Mechanisms Vary in Primary Care

• Mixed methods study
• Population
  – 8 primary care clinics
  – 12 physicians, 8 NPs, 4 PAs, 2 CMAs, 2 RNs
• Results
  – All report using multiple mechanisms of coordination (often redundantly)
  – Relational coordination predominant with staff
  – Electronic coordination predominant between providers
• Conclusion
  – Redundancies and inefficiencies in coordination exist
  – Coordination mechanism utilized does not necessarily ideally match the situation

Everett et. al. Primary care teams and coordination. Manuscript in preparation
Principles of Implementation Process

• Little research exists on primary care processes
• Most process efforts have focused on task work
  – Using work flow mapping (ex: Lean)
  – Goal of improving clinician efficiency
• Most coordination has focused on routines and relational coordination
• The more you share work, the more you need to focus on coordination
• Team training can help
Outcomes

- **Objective**
  - **Patient**
    - Utilization
    - Health Outcomes
  - **Team**
    - Quality of Care
    - Access to Care
  - **Organizational**
    - Cost
    - Turnover

- **Subjective**
  - **Patient**
    - Satisfaction
  - **Team**
    - Satisfaction
    - Perceived Team Effectiveness
    - Burn-out
  - **Organizational**
    - Perceived Team Effectiveness
Anderson and Halley. A new approach to making your doctor-urse team more productive.

Family Practice Management 2008
The 10 Building Blocks of High-Performing Primary Care

Thomas Bodenheimer, MD
Arunabh Ghoshal, MPH
Rachel Willard-Grace, MPH
Kevin Grumbach, MD
Center for Excellence in Primary Care, Department of Family and Community Medicine, University of California, San Francisco, San Francisco, California

ABSTRACT
Our experiences studying exemplary primary care practices, and our work assisting other practices to become more patient-centered, led to a formulation of the essential elements of primary care, which we call the 10 building blocks of high-performing primary care. The building blocks include 4 foundational elements—engaged leadership, data-driven improvement, empowerment, and team-based care—that assist the implementation of the other 6 building blocks—patient-team partnership, population management, continuity of care, preempt access to care, comprehensiveness and care coordination, and a template of the future. The building blocks, which represent a synthesis of the innovative thinking that is transforming primary care in the United States, are both a description of existing high-performing practices and a model for improvement.


In Search of Joy in Practice: A Report of 23 High-Functioning Primary Care Practices

Christina A. Somlyo, MD
Rachel Willard-Grace, MPH
Andrea M. Schubert, MD
Thomas A. Slovik, MD
David Margolis, MD
Thomas Bodenheimer, MD
Mayo Clinic, Rochester, Minnesota

ABSTRACT
We highlight primary care innovations garnered from high-functioning primary care practices, innovations we believe can bolster joy in practice and combat physician burnout. To do so, we made site visits to 23 high-performing primary care practices and focused on how these practices distribute functions among the teams, use technology to their advantage, improve outcomes with data, and make the job of primary care feasible and enjoyable as a life’s vocation. Innovations identified include (1) proactive patient care, with preventive planning and periodic laboratory tests; (2) sharing clinical care among a team, with expanded evening protocols, standing orders, and panel management; (3) sharing clinical tasks with collaborative documentation (tracing), nonphysician order entry, and computerized provider order entry; (4) improving communication by verbal messaging and in-person management; and (5) improving team functioning through co-location, team meetings, and work-flow mapping. Our observations suggest that a shift from a physician-centric model of work distribution and responsibility to a team-centered model, with a higher level of clinical support staff, peer physicians, and frequent forums for communication, can result in high-functioning teams, engaged professional satisfaction, and greater joy in practice.

The Building Blocks of High-Performing Primary Care: Lessons from the Field
April 2012
Evidence- PCMH

Patient Outcomes at 26 Months in the Patient-Centered Medical Home National Demonstration Project

Carlos Roberto Jaén, MD, PhD, Robert L. Ferrer, MD, MPH, William L. Miller, MD, MA, Raymond F. Palmer, PhD, Robert Wood, DrPH, Marivel Davila, MPH, Elizabeth E. Stewart, PhD, Benjamin F. Crabtree, PhD, Paul A. Nutting, MD, MSPH and Kurt C. Stange, MD, PhD

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The Patient-Centered Medical Home in the Veterans Health Administration

Ann-Marie Rosland, MD, MS*, Karin Nelson, MD, MSHS*, Halli Sun, PhD; Emily D. Dolan, PhD; Charles Maynard, PhD; Christopher Bryson, MD, MS; Richard Stark, MD; Joanne M. Shear, MS, FNP-BC; Eva Kerr, MD, MPH; Stephan D. Flinn, MD, MPH; and Gordon Schectman, MD

The Patient-Centered Medical Home
A Systematic Review

George L. Jackson, PhD, MHA; Benjamin J. Powers, MD, MHS; Ranee Chatterjee, MD, MPH; Janet Puyu Betrger, ScD; Alex R. Kemper, MD, MPH, MS; Vic Hasselblad, PhD; Rowena J. Dolan, MD, MHS; R. Julian Irvine, MCM; Brooke L. Heldenfelder, PhD; Amy S. Kendrick, RN, MSN; Rebecca Gray, DPhil; and John W. Williams Jr., MD, MHS

Background: The patient-centered medical home (PCMH) describes mechanisms for organizing primary care to provide high-quality care across the full range of individuals’ health care needs. It is being widely implemented by provider organizations and third-party payers.

Purpose: To describe approaches for PCMH implementation and summarize evidence for effects on patient and staff experiences, process of care, and clinical and economic outcomes.

Data Sources: PubMed (through 6 December 2011), Cumulative Index to Nursing & Allied Health Literature, and the Cochrane Database of Systematic Reviews (through 29 June 2012).

Study Selection: English-language trials and longitudinal observational studies that met criteria for the PCMH, as defined by the Agency for Healthcare Research and Quality, and included populations with multiple conditions.

Data Extraction: Information on study design, populations, interventions, comparators, financial models, implementation methods, outcomes, and risk of bias were abstracted by 1 investigator and verified by another.

Data Synthesis: In 19 comparative studies, PCMH interventions had a small positive effect on patient experiences and small to moderate positive effects on the delivery of preventive care services (moderate strength of evidence). Staff experiences were also improved by a small to moderate degree (low strength of evidence). Evidence suggested a reduction in emergency department visits (RR 0.81 [95% CI, 0.67 to 0.98]) but not in hospital admissions (RR 0.96 [CI, 0.84 to 1.10]) in older adults (low strength of evidence). There was no evidence for overall cost savings.

Limitation: Systematic review is challenging because of a lack of consistent definitions and nomenclature for PCMH.

Conclusion: The PCMH holds promise for improving the experiences of patients and staff and potentially for improving care processes, but current evidence is insufficient to determine effects on clinical and most economic outcomes.

For author affiliations, see end of text.
This article was published at www.annals.org on 27 November 2012.
Team Designs May Impact A Range of Outcomes

PA/NP roles are associated with different quality of diabetes care and health service utilization patterns and no single role was best for all outcomes

<table>
<thead>
<tr>
<th>Primary Care PA/NP Role</th>
<th>Outcome Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>≥2 A1c Tests</td>
</tr>
<tr>
<td>PA/NP Level of Involvement</td>
<td>Complex Patients</td>
</tr>
<tr>
<td>Supplemental</td>
<td>No</td>
</tr>
<tr>
<td>Supplemental</td>
<td>No</td>
</tr>
<tr>
<td>Supplemental</td>
<td>Yes</td>
</tr>
<tr>
<td>Supplemental</td>
<td>Yes</td>
</tr>
<tr>
<td>Usual Provider</td>
<td>Yes/No</td>
</tr>
</tbody>
</table>

+ = Better outcome than physician-only care
- = Worse outcome than physician-only care
Finding reflect p≤0.05

Principles of Implementation
Outcomes

• Little research exists on primary care team outcomes
• Teams may impact different outcomes in different ways
• Nothing is known about the contribution of each model component to successful outcomes
• No longitudinal studies have been completed
Team Effectiveness Model

Adapted from Integrated (Health Care) Team Effectiveness Model (ITEM); Lemieux-Charles, McGuire 2006
Questions?
Thank you!
Christine.Everett@duke.edu