

## Designing and running an interprofessional teaching clinic in a medical home.

C. Scott Smith, MD<sup>1,2</sup>

Deborah Smith, DNP, ARNP<sup>3</sup>

William Weppner, MD, MPH<sup>1,2</sup>

Jared Bernotski, MS<sup>1</sup>

Janet Willis, BSN, RN<sup>1,4</sup>

Amber Fisher, Pharm D, BCPS, BCACP<sup>1,5</sup>

Donna Lowther, MSN, FNP<sup>1</sup>

Rick Tivis, MS<sup>1,5</sup>

Melanie Nash, MSN, FNP<sup>1,3</sup>

Adam Brotman, PhD<sup>1</sup>

Tim Gordon, MA<sup>1</sup>

1. Boise Veterans Affairs Medical Center, Center of Excellence in Primary Care Education, Boise, Idaho, USA
2. University of Washington, Seattle, Washington, USA
3. Gonzaga University, Spokane, Washington, USA
4. Northwest Nazarene University, Nampa, Idaho, USA
5. Idaho State University, Pocatello, Idaho, USA

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Corresponding Author

C. Scott Smith, MD, MACP

c/o VA Medical Center

500 W. Fort St.

Boise, Idaho, USA 83702

Phone (208) 422-1314

FAX (208) 422-1319

Email [scott.smith2@va.gov](mailto:scott.smith2@va.gov)

**Abstract**

Team-based care models, such as the patient-centered medical home, are being encouraged and adopted in many primary care systems. Interprofessional training experiences designed to provide the skills necessary for team-based care are also becoming popular. In this paper we provide several recommendations for creating and sustaining an interprofessional training clinic in a patient-centered medical home based on our research and three years of experience in field training as one of the VA's Centers of Excellence in Primary Care Education. Despite in some cases 20+ years of previous co-practice we have learned new deep understanding and respect for each other's abilities and have used this knowledge to provide better coordinated, more efficient care. This is leading to measurable improvements in educational and clinical outcomes.

## Introduction

The United States' primary care workforce faces severe shortages.<sup>1</sup> Major contributors to this shortage are poorly functioning work environments and health education models that do not foster learning contemporary primary care roles.<sup>2</sup> Leading national agencies support the need for interdisciplinary education and practice. This article presents several recommendations that are aimed at those who are considering or refining an interprofessional, patient centered medical home clinic.

The patient-centered medical home (PCMH) model focuses on proactive team-based care. Key elements include patient empanelment, shared decision making, coordination of care, and quality improvement strategies utilizing health information technology.<sup>3</sup> The PCMH model stresses optimizing each member's ability to "work to the top of their license," providing the full extent of care within that practitioner's scope of practice and training. Moreover, team members should share such care using agreed upon procedures, and based on the "best fit" for the patient's needs. For instance, screening tests such as mammography or colon cancer screening could be ordered for appropriate populations by the medical assistant per a prearranged protocol. Implemented properly, such preventative care could improve patient care. However, such scope-of-practice optimization represents a major shift from traditional provider-centric care to team-based care.<sup>4</sup>

Because of the increasing complexity and specialization of services many modern practice environments reflect a shift to integrated teams. When able to collaborate and communicate effectively, well-functioning interprofessional teams can produce more than the sum of their parts. Developing into such effective integrated teams, however, can be difficult and challenging.<sup>5</sup> In this context, the goal of this paper is to provide a specific, yet flexible set of recommendations to help develop environments where healthcare professionals can learn how to work together in highly functioning teams.<sup>5</sup>

### **Experience and evidence**

Our recommendations are based on three sources. First, we are one of five sites selected as a Center of Excellence for Primary Care Education (CoEPCE) by the U.S. Department of Veterans Affairs designed to identify and articulate transformative influences for the Interprofessional Patient Centered Medical Home (IP-PCMH).<sup>6</sup> Consequently, over the past three years we have designed and implemented IP-PCMH training for health care learners from nursing, nurse practitioner, pharmacy, psychology, and medicine disciplines. These learners and their associated faculty have shared in formal didactics, collaborative workplace learning experiences, and protected time for reflection. A second pivotal source for our recommendations has been our ongoing discussions with other center partners and our coordinating center through meetings, conference calls, and online dialogue. Finally, we conducted a systematic review of teamwork literature in business, sports, psychology, and health care arenas. We searched PubMed, Cinahl, and Ovid in June 2013 using the search term ‘teamwork’. Review of these references led us to several relevant books.<sup>7,8,9,10,11</sup> Combined with our CoEPCE experience, we have synthesized this literature into the following framework for developing IP-PCMH teaching clinics:

### **Recommendations**

#### **Define your team**

It is useful to think of a training team as a community of practice.<sup>12</sup> Communities of practice are stewards of information—working to identify, put into practice, and improve the implementation of information leading to successful performance.<sup>13</sup> One of the most important team definitions pertains to team boundaries. In particular, team boundaries identify who is a full-fledged member of the community and who is not. Those inside the team boundary establish, disseminate, and refine the common knowledge needs that are deemed essential to facilitate collaborative practice. Team boundaries ascertain who has shared responsibility for the team’s product.<sup>9</sup> Trainees are invited to be

legitimate apprentice members (enter the boundary) as core members mentor them by supervising direct participation commensurate with trainees' discipline, knowledge, and skills.<sup>12,13</sup>

While team boundaries should be clear, internal boundaries between professions need to be more relaxed and porous, and clarity between these types of boundaries is important. Fixed internal boundaries potentially limit the scope of practice and restrict team function. With such demarcations in mind, the following are important boundary considerations to address:

- *Which professions should be 'core' on your team?* Common core members of a primary care team include physicians, nurse practitioners (NPs), physician assistants (PAs), nurses, medical assistants, clerks, psychologists, pharmacists, and social workers. In our experience, the core team should contain at a minimum a primary care discipline, nurses, pharmacists, behavioral health, and clinical support staff. Defining such a core team does not exclude other disciplines from participating as adjuncts where appropriate. For instance, we found involving chaplains to be important in our high-utilizer conference because they often knew the most about patient's core values and motivational barriers. While allowing such a core and expanded team is important, boundary crossing protocols and artifacts, such as the mammogram protocol for medical assistants discussed earlier, are often critical to make negotiated roles and responsibilities explicit and, most importantly, for bridging boundaries between professions or across teams.
- *What personal time commitment will it require to be a 'core' member?* Relationships in any team require commitment in order to develop trust, risk vulnerability, and innovate. Relationships are clearly associated with performance.<sup>7,9,10</sup> Reinforcing such relationships requires both dedicated time and stability in order to mature. On the other hand, faculty members confront various other demands on their time, and each profession has unique curricular goals for their learners. To balance such demands, we have found that a minimum of 30% time dedicated to the IP-PCMH (including clinical and classroom time) is appropriate for core learners and faculty. Again, this does

not mean that other learners cannot have lesser roles and a reduced time commitment. In fact, such diversity of participation is often important for recruitment and retention.

- *Patients are critical members of your team.* How will you include their voice? Perhaps this will be one of the largest role changes. Patients need to be much more focused, involved, and proactive in their care. They may need orientation to the new team goals and processes. Useful techniques for inclusion are pre/post visit phone contact, secure email systems, and patient advisory groups.

**Institute Clear Norms of Conduct**

Negotiation of goals, roles and responsibilities is hard and sometimes contentious work. Establishing norms of civility, inclusiveness, active listening, inquisitiveness, and suspension of judgment can help lubricate this process. With time, civility leads to respect and sets the stage for the

psychological safety needed to establish trust. One of our team members (DS) joins our team meetings remotely by phone and has functioned as a process observer, someone whose role it is to monitor interactions and compliance with the aspirational norms. The effects of providing this feedback on relative participation over time have created a discussion in which it is less physician-dominated.

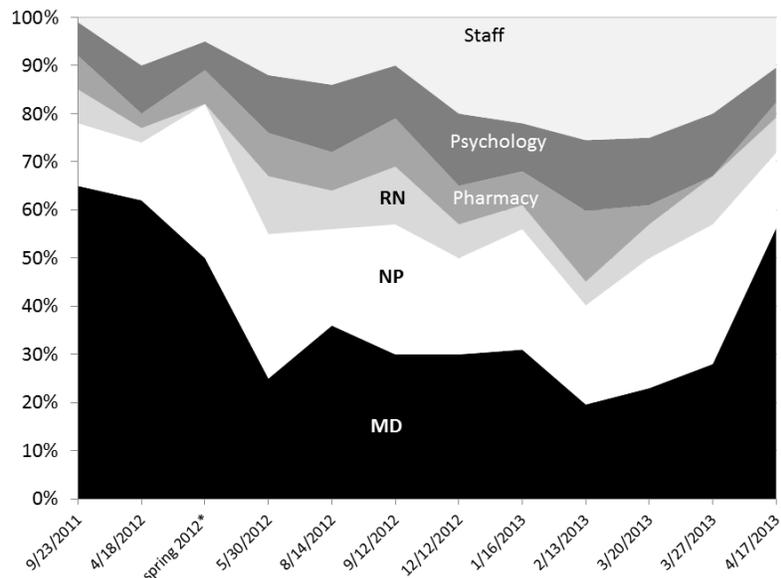


Figure 1. Meeting participation by discipline and date

### **Develop, Articulate, and Revisit Shared Goals and Mission**

Much of the team building literature focuses on the importance of establishing shared goals<sup>7,8,9,10</sup> as being associated with better performance and efficiency.<sup>7</sup> Also, shared goals are an important facilitator of boundary crossing when the boundaries are due to hierarchical structure.<sup>8</sup> However, early team goals are typically the abstract goals of a funding body or organizational leadership. Since the goals of individuals may be very different, the team should allow varying viewpoints, but strive to adapt to broader institutional goals. Again, we have found that structured process observation and feedback can be useful, particularly in helping to hold each other accountable in terms of buy-in and achievement of shared goals.

- *What is your team-wide mission, vision, and value statement?* Giving all team members a voice in developing and expounding team discourse provides one of the simplest and most powerful tools for recruiting and retaining IP-PCMH converts.
- *Reduce such points into your three clearest, most important, 'elevator bullets.'* How would you use those points to define your team's methods and successfulness to the Chief Operating Officer if asked what the team does during an elevator ride?

### **Attend to Structure**

The physical and social structure of the team critically affects function and should be designed as deliberately as possible. The following are specific examples from our experience:

- *Training teams are rife with unavoidable structural boundaries.* These include spatial (different physical spaces between teams or between practice and class), hierarchical (e.g., faculty/learner), and professional (e.g., MD/NP) boundaries.<sup>8</sup> While such boundaries are inevitable, 'boundary

brokers,' i.e. agents that can negotiate across these boundaries should be fostered, protected, and rewarded.<sup>8,9,10</sup> Only then can team members integrate their individual elements into the broader team's collective makeup and deep learning. For example, a nurse that bridges the role of faculty and clinical team co-manager has been particularly valuable in our model. In addition, members from outside the organizational setting can help to mediate differences between professions that may be exacerbated by local politics and resource battles. Other useful mechanisms for attending to structure include:

- for spatial boundaries, hold periodic face-to-face whole group meetings
  - for hierarchical boundaries, focus on shared goals
  - for professional boundaries, co-create boundary crossing or bridging processes and/or artifacts (such as the written mammogram protocol agreement mentioned earlier).<sup>8</sup>
- *Team function improves when core faculty from each discipline collocate in the same space.* Physical collocation provides more opportunities for informal dialogue, which is often where creative, new ideas are born and fostered.
  - *A nested co-leadership model can be particularly useful.* We have found it invaluable to have our center co-directed by an MD and an NP. Placing different disciplines in co-leadership roles can raise collaboration to new heights through role modeling. Within the center, the clinic directors are an RN and an MD. Their main focus is on identifying and process mapping new practices for working at the top of practitioners' scope. They are also optimally placed to lead quality improvement (QI) measures.

**Provide a 'Leveling' Opportunity Early On**

Since IP-PCMH teams are often brought onto the same playing field from traditionally hierarchical arenas, we have found it critical to provide a retreat with at least one ‘leveling’ experience, typically something interactive and novel, early in the training year. Our retreats have included interprofessional trainees, faculty, clinic staff, and hospital leadership with outside experts hired for some interactive events. As examples of leveling activities, we have included botanical classification in a nature preserve, performing scenes from Shakespeare’s *Macbeth*, and Contra Dancing. Such leveling experiences, outside the structure of participants’ anticipated clinical routines, have facilitated more open dialogue and the establishment of deeper relationships. Several trainees identified that these retreats were fundamental in helping the group to be inquisitive about each other and to bond. Periodic social engagements (i.e. introductory barbecues, holiday parties, etc.) with trainees and their family members or significant others can serve a similar leveling function.

### **Develop Theories to Guide Action**

The IP-PCMH training model is new, and we are creating it even as we study it. Because it is complex and multi-faceted, implementation should be as theory-driven as possible to allow performance and outcomes to be attributed to specific elements. Our theory of learning uses the water cycle as a metaphor, which guides our process, products, and evaluation through repeat iterations and dynamic changes. Workplace learning is the lake or crucible where concepts are immersed and tested. Reflection is represented as rain in the cycle since it reinforces success and extinguishes problematic workplace actions. Formalization of reflections, like sunlight, is the driving force for transference and application of the learning into generalizable products.

### **Test Theories and Perturb the ‘Status Quo’**

The IP-PCMH is a self-organizing, complex adaptive system. As such, it is important to test assumptions by designing bounded trials or perturbing the system in critical ways. Some examples follow.

- We theorized that hierarchy was likely affecting participation in our team meetings. Therefore, during one reflection meeting (Dec. 12, 2012, led by the psychology core faculty) the co-directors (an NP and an MD) were instructed not to speak unless spoken to, and then only in short answers. Although this new dynamic at first seemed odd for the participants, it led to far more input from other group members, and once the silence was broken and members were debriefed, it seemed to affect participatory balance thereafter.
- We had an accidental experiment that similarly enhanced contributions, where none of the physicians could go to a national meeting of the five centers, resulting in uninhibited creativity and generation of the above 'water cycle' learning model by the rest of the team.
- We designed an ambulatory interprofessional care update (ICU) as a way to provide authentic workplace learning for trainees about the roles and capabilities proposed during didactic lectures. Learners present one of their highest utilizing patients; then the team conducts a structured, interprofessional assessment and creates an action plan. To mention just one outcome, the ambulatory ICU has significantly improved trainees "understanding of how my colleagues can help me with difficult patients like the one presented" (from 3/5 to 4.4/5,  $p < 0.001$ ).

**Identify a systematic, yet adaptable evaluation plan to attend to important outcomes**

Because IP-PCMH's are complex adaptive systems, change may not always proceed in a linear or predictable fashion. Also, most IP-PCMH's are young and are fraught with performance uncertainty. Therefore, it is more appropriate to be a learning organization than a command and control organization when planning data collection;<sup>8</sup> otherwise, major outcomes, because they are not necessarily anticipated or traditional, might be missed. Consequently, we recommend looking for "signal events" that change and transform the team. The accidental experiment mentioned above is one example. Signal events, if identified and reinforced through positive response and encouragement, can yield a

ripple effect. To maximize this effect, there are three features of data acquisition that we have found to be important:

- *Collect both qualitative and quantitative data.* Qualitative data has helped us to assess meaning and elucidate the values and reasoning that drive quantitative outcomes. Likewise, quantitative data is essential to clarifying cause→effect relationships when possible and is important to many stakeholders.
- *Consider the data needed for each stakeholder.* For example, educators and trainees may be concerned with learning outcomes. Efficiency and satisfying patient outcomes may be important to staff and patients. Affiliates may find career decisions, national test results, clinical experience, and retention to be critical. Funders may be most concerned about access, cost, and quality of care.
- *Beware of response burden.* With such a broad spectrum of data needs, it is tempting to use several instruments and measure frequently. However, trainees will soon fatigue and response rate may plummet. In other words, it is important to use the shortest questionnaire in a given area that will give the desired measurement. Check for inter-correlation between instruments or sub-sections to enable dropping redundant measures. And finally reward respondents with chocolate!

### **Protect Time for Reflection**

Our initial team meetings attempted to cover everything, but day-to-day items such as problems and upcoming events crowded out more reflective activities. During our April 18, 2012 meeting we doubled the number of team meetings (to every other week) and split them into ‘operational’ and ‘reflection’ meetings. This practice seemed to be a signal event in our team formation. We have found that unscripted yet semi-structured reflection on topics important to the group is crucial to drive and complete the circle of transformation. Reflection doesn’t have to take a lot of time, but it needs to be

consistent and protected, and the learners need to be able to count on it. Below we have provided a list of topics that we found to be useful:

- Co-creating our Vision, Mission, and Values statement as well as our ‘elevator bullets’
- Exploring learning theories and deciding on one to guide us
- Unveiling and discussing the process monitor function (that led to Figure 1)
- Philosophical discussions about what our budget priorities ought to be
- The ‘silent leadership’ exercise mentioned above

### **Expect Tension, Develop Mechanisms to Handle It**

We follow several principles when tensions have developed between individuals or groups. First and foremost is each and every member’s pledge to commit to participation. Explicitly agreeing to the supra-ordinate goal of becoming an interprofessional team is useful for providing the best patient care possible.

In times of significant trouble, expect a silo response. The silo response is related to an individual or profession pulling away from the team and erecting strong exclusive boundaries and barriers. While the silo response lessens over time, it can persist and return under stressful times. It is difficult to recover from, but if it is acknowledged, openly addressed and resolved, the team moves forward stronger than before.

Other communication rules to remember include:

- Focus on what is best for the patient
- Negotiate values and goals; don’t attack people or positions
- Productive discomfort is OK, and in fact may be a positive sign of stretching boundaries

- Say things simply and clearly
- Be honest (often hard when what you have to say may be hard for the other to hear)
- Turn to wonder when the going gets rough. Reflect on the amazing opportunity to practice together. Ask how can this opportunity be maximized?
- Celebrate success

As an example of resolving tension, one exercise that the co-directors used was to list their own and each other's perceived strengths and weaknesses, and then to go over the lists with each other. It was amazingly valuable to see that the lists were highly concordant, and that the dialogue then moved to who should do what based on these agreed upon abilities.

#### **Question definitions and status quo role assumptions**

Two large tasks predominated during this early phase: 1) convincing physicians not to take charge, and 2) giving permission to and facilitating non-physicians to lead. This may be exacerbated by disparities in leadership/management experience between groups.

The physician-as-leader is perpetuated by role development, education, and mentorship. It is also supported by hierarchical structure of VA and the apprenticeship model of medical education. As compared to physician role development, nursing role development emphasizes teamwork rather than an action oriented style of leadership. Nurse Practitioners come from this nursing background and while they have accepted leadership they have not embraced stepping up to take charge, especially as students. In the environment of health care teams, NPs and psychologists affect change in a teamwork style, while physicians and pharmacists use a more action-oriented "find it-fix it" approach. Action

oriented approaches are suited to urgent situations, while relationship-based solutions may result in more enduring and stronger teams that share leadership.

### **Teach Others**

Nothing solidifies understanding and lessons learned like teaching them. That is the point of the 'formal instruction' piece of our water cycle metaphor. Because our program is a pilot, we view it as imperative that we share these and other lessons learned with others via mentoring, publications, protocols, and curriculum products.

### **Discussion**

Both the interprofessional training model and the patient-centered medical home, particularly in the context of training, are relatively new and their combination requires an extra measure of cultural change. To facilitate such change, we have codified these recommendations based on our research and three years of field testing as one of the VA's Centers of Excellence in Primary Care Education, an interprofessional training initiative in the patient-centered medical home model. Our goal in writing this interprofessionally-authored article is to provide suggestions, practice tips from the trenches that can empower you to bring out the best in your own IP-PCMH training clinic. While the implementation of training is highly context-specific, we hope that this article's recommendations help motivated educational professionals to more effectively collaborate, innovate, and reflect upon their successes and areas for improvement.

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