IMPLEMENTATION GUIDE

EMPANELMENT

Establishing Patient-Provider Relationships

May 2013

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Introduction

The Patient-Centered Medical Home (PCMH) Model of Care requires that patients and families and providers and care teams recognize each other as partners in care. Empanelment—the act of assigning individual patients to individual primary care providers (PCP) and care teams with sensitivity to patient and family preference—formalizes and affirms these partnerships and sets the stage for all of the other components of effective PCMH practice. Panel management, the ongoing management of patient panels, fosters a controlled healthcare environment and enables proactive preventive and chronic illness care.

The relationship between the patient/family and the provider/care team is at the heart of the Patient-Centered Medical Home (PCMH) Model of Care.

For many practices, empanelment is a cultural transformation. Providers and care teams must shift their focus from caring for individual patients to managing the health of a defined population of patients. Empanelment also requires a shift from reactive to proactive care. The goal of focusing on a population of patients is to ensure that every established patient receives optimal care, whether he/she regularly comes in for visits or not. Accepting responsibility for a finite number of patients, instead of the universe of patients seeking care in the practice, allows the provider and care team to focus more directly on the needs of each

Message to Readers

Practices beginning the PCMH transformation journey often have questions about where and how to begin. We recommend that practices start with a self-assessment to understand their current level of "medical homeness" and identify opportunities for improvement. The SNMHI's self-assessment, the Patient-Centered Medical Home Assessment (PCMH-A), is an interactive, self-scoring instrument that can be downloaded, completed, saved, and shared.

Readers are encouraged to download the corresponding Safety Net Medical Home Initiative Empanelment materials:

- Empanelment Executive Summary provides a concise description of the Change Concept, its role in PCMH transformation, and key implementation activities and actions.
- Patient Acuity Rubric.
- Determining the Right Panel Size.
- Addressing Staff Pushback for Empanelment.
- Sample PCP Assignment Policy.
- Scripting for Appointment Scheduling.
- Sample Provider Staffing and Scheduling Policy.

patient. For safety net practices, which serve patients regardless of their ability to pay and maintain an "open door" policy, empanelment can be particularly challenging, because it may require limiting access for non-established patients (i.e., closing specific panels or the practice as a whole) in order to allow the practice to provide optimal care for established (empanelled) patients.

While empanelment can be challenging, it is essential for PCMH transformation and provides benefits for patients and families, providers and care teams, and the practice as a whole.

Empanelment allows practices to build effective and responsive care teams that can best meet the needs of patients. In an empanelled practice, the primary care provider (PCP) partners with a care team to share responsibility for the ongoing comprehensive and coordinated care of the patients on its specific panel roster. Empanelment allows practices to better manage supply and demand, thereby enhancing patient access and continuity. While empanelment does not specifically attempt to increase provider productivity, many providers are able to increase productivity through redesign of clinic workflows and improved team functioning once care teams are established to care for their respective panels.

This Implementation Guide explains the purpose and process of empanelment and provides step-by-step directions for successful implementation.

The Change Concepts for Practice Transformation: A Framework for PCMH

"Change concepts" are general ideas used to stimulate specific, actionable steps that lead to improvement. The Safety Net Medical Home Initiative (SNMHI) established a framework for PCMH transformation to help guide practices through the transformation process. The framework includes eight change concepts in four stages:

- Laying the Foundation: Engaged Leadership and Quality Improvement Strategy.
- Building Relationships: Empanelment and Continuous and Team-Based Healing Relationships.
- Changing Care Delivery: Organized, Evidence-Based Care and Patient-Centered Interactions.
- Reducing Barriers to Care: Enhanced Access and Care Coordination.

The Change Concepts for Practice Transformation have been most extensively tested by the 65 safety net practices that participated in the SNMHI, but they are applicable to a wide range of primary care practice types. The Change Concepts have been adopted by a number of other improvement initiatives, reflecting their generalizability in primary care regardless of patient population or practice structure. The Change Concepts were derived from reviews of the literature and also from discussions with leaders in primary care and quality improvement. They are supported by a comprehensive library of resources and tools that provide detailed descriptions and real examples of transformation strategies. These resources are free and publicly available. To learn more, see the Change Concepts for Practice Transformation.

Key Changes for Empanelment

The eight Change Concepts provide a framework for PCMH transformation. Each change concept includes multiple "key changes." These provide a practice undertaking PCMH transformation with more specific ideas for improvement. Each practice must decide how to implement these key changes in light of their organizational structure and context. The key changes for Empanelment are:

- Assign all patients to a provider panel and confirm assignments with providers and patients; review and update panel assignments on a regular basis.
- Assess practice supply and demand, and balance patient load accordingly. (To learn more about supply and demand, see the Enhanced Access Implementation Guide.)
- Use panel data and registries to proactively contact, educate, and track patients by disease status, risk status, self-management status, community and family need. (To learn more about tracking patient care received outside of the organization, see the Care Coordination Implementation Guide.)



Key Terms

Continuity of care: The frequency with which patients are seen by their assigned provider/care team versus other providers in the practice.

Panel size: The number of individual patients assigned to the care of a specific provider/care team.

Right panel size: Number of individual patients a provider can support based on provider's appointment availability.

AVPY: Average Visits per Patient per Year.

Demand: Known and anticipated needs of patients for medical care. Demand is a reflection of patients' need for care or service and is measured by a visit, a phone call, an email, a message through a portal, or other means by which a patient says: "I need something from you."

Demand can be for a visit; medication; clinical advice; self-management, care management, financial eligibility, other support; or for information for forms or other paperwork, typically for jobs, day care, school, sports, or camp.

Supply: Supply is used to denote the amount of something, typically the number of staff that are available, the number of providers, the number of appointment slots, or the number of hours of service. With regard to empanelment, "supply" specially refers to provider appointment availability—the total number of appointment slots available in a given timeframe.

Capacity: The term "capacity" reflects the maximum or optimum amount that can be produced with a certain set of resources, i.e., the supply. Capacity is the ability of a practice to meet patient demand for care. Variables include staff resources, team effectiveness, availability of appointments and other avenues for care, physical space, and tolerance (the ability of a care team to manage a specific workload).

Supply and Capacity: The Multiplier Effect

The difference between supply and capacity is a multiplier effect that takes the supply and makes it greater than its parts. An example is that a certain number of staff have the capacity to produce a specific amount of work to meet patients' needs. However, when we organize the same number of staff into care teams with specific roles and responsibilities the capacity to meet patient demand increases. Teams are a **multiplier** for the supply. If we add better designed workflows for the teams to use, the capacity increases even further.



Background

What is Empanelment?

Empanelment is the act of assigning each patient to a primary care provider who, with support from a care team, assumes responsibility for coordinating comprehensive services for his/her panel of patients. Empanelment is a methodology to ensure continuity of care for a practice's patient population. Panel management fosters a controlled healthcare environment rather than a chaos-driven operation.

Empanelment enables a practice to provide proactive and planned care for a population of patients.

Panels are assigned through a systematic, rational approach to care delivery rather than a finite productivity requirement. However, because of its link to team-based care, which promotes efficiency in the practice setting, many providers are able to increase productivity through redesign of clinic workflows and improved team functioning, which enhances access to care.

The basic tenet of empanelment is that providers/care teams are responsible for the care that assigned patients need. Each provider is responsible for all of the patients listed on the panel roster, whether or not those patients come into the practice for care. Accepting responsibility for a finite number of patients, instead of the universe of patients seeking care in the practice, allows a provider and care team to focus more directly on the needs of each patient.

Benefits of Empanelment

Empanelment benefits patients, providers, care teams, and the practice as a whole. Empanelment is also a basic premise of population management.

Visits with the same provider positively affect patient experience, clinical care, and patient outcomes.[1,2]

For the patient

Consistent visits with the same provider have multiple positive patient outcomes. Visits with the same provider positively affect patient experience, clinical care, and patient outcomes.[1,2] Provider consistency leads to better patient-provider communication, better identification of medical problems, and higher satisfaction with care.[3] Healthcare consumers have been shown to value having one PCP as a source of first contact and coordinator of referrals.[4] This relationship builds trust and provides consistency in treatment approaches and follow-up, improving patient experience and clinical outcomes. Patients benefit from a long-term relationship with a provider or team of providers so long as the patient understands how the team works together.[5,6] Patients can reliably get in to see their provider when they need to, and are assured of having enough time during the visit to get their healthcare needs met. Empanelling patients enables practices to go beyond disease-specific interventions and address preventive, chronic, and acute needs of all patients, those who regularly come into the medical practice for care and those who do not. Many of the positive aspects of PCMH stem from this relationship and from greater continuity of care.

Empanelment is a primary driver for continuity and access.

For the provider
Empanelment enables providers to customize care delivery methods, identify, and compare subpopulations of patients. In addition, empanelment methodologies bring balance and order to the workplace. Non-paneled practices typically lack a clear daily plan as providers see whoever is on the schedule. Some providers work hard to see everyone needing to be seen while others do not, and patient complexity tends to be highly variable. In an empanelled practice, each provider sees his/her unique panel, creating efficiency through reduction of intensive chart review on unfamiliar patients, and controlling costs by mitigating duplicate tests, medications, and service orders. Empanelled providers also report higher levels of satisfaction.[7]

For the practice/clinic/health center
Empanelment creates a rational system for evaluating provider workload, defines the process for fair distribution of workload, and allows for data-driven decisions supporting practice management and growth. Empanelment fosters the development of care teams, which develop efficient patient flow processes and work together to support care needs of every patient. Overall system costs are also reduced through healthier patients and fewer emergency room visits and hospital readmissions.[1,3,7]

For PCMH transformation
Empanelment sets the stage for all other components of effective PCMH practice. For example, enhancing access to care depends on the ability of a practice to manage supply and demand, which are both clarified by empanelment. To have effective, continuous relationships, care teams and patients need to recognize each other as partners in care. Linking patients to providers is a primary goal of empanelment. Once empanelled, a provider can assess and understand the panel constituents and then build and guide a care team to effectively, proactively, and responsively provide care for the panel.

Roles and Responsibilities

Empanelment goes far beyond the mechanics of assigning patients to providers. The practice must assign roles and responsibilities to specific employees to implement empanelment effectively. Practice size, number of patients, and other factors will contribute to the role and responsibility decisions. Instituting changes that reinforce roles, such as controlling access rights to a practice management system to limit front desk or call center staff in changing PCP assignments, may also be necessary. This section addresses roles and responsibilities of all team members involved in the empanelment process.

Leadership

Empanelment is a leadership-driven process essential for becoming a medical home. Strong, effective leadership and ongoing operational support are essential. Policies and procedures must be in place to ensure patients can reliably see their assigned provider and build relationships with the care team. In practices where existing providers have a large or unbalanced workload, patients may need to be reassigned to other providers and encouraged to build new relationships. To maintain panel sizes at a workable level, a practice may need to hire more healthcare providers.

Moving to an empanelled practice is most successful when operational managers work in tandem with practice teams to develop policies and procedures. Providers and other staff may push back during this change. Strategies to address this pushback and to address specific staff concerns are provided in the corresponding tool, Addressing Staff Pushback for Empanelment.

Practice leaders can show commitment to the process by observing and establishing the following:

- Establish the expectation that the practice will be a "continuity practice" and help staff understand how empanelment benefits patient and families, providers and care teams, and the practice as a whole.
- Provide training to educate staff about empanelment.
- Clarify roles and responsibilities and establish practice policy.
- Assign empanelment roles within the practice, and modify job descriptions to include specific responsibilities. Identify key individuals who will be responsible for entering the PCP assignment into the practice management system. Limit the number of individuals who will be responsible for changing the PCP assignment in the practice management system.
- Design a way for patients to identify with their care teams, and create communications materials that reinforce the patient-team relationship.
- Determine practice capacity to serve current patient population.
- Ensure staff have access to appropriate IT applications to support empanelment.
- Support the development of forms, log sheets, and/or reports that enable the panel manager to document and analyze PCP assignments, panel reports, and changes, including developing policies for:
  - Definition of an "active patient."
  - PCP assignments: patient selection, initial assignment, transfers, transitioning care, accepting new patients, etc.
  - Part-time providers.
  - How patients can change providers; how providers can request a change in PCP for patients.
  - Minimum staffing requirements for clinic session coverage to ensure adequate appointment supply.

In some cases, leadership may need to rethink management responsibilities as well. Empowering teams to manage their own panels may require decentralizing decisions about how best to meet the needs of patients, such as allowing teams to develop unique approaches to care management or determine coverage for team vacation schedules.

In addition, leadership may need to redesign team roles so all tasks associated with patient care are covered in the most cost-effective way, ensuring that each team member is assigned responsibilities congruent with licensure/credentialing, legal scope of work, skills, and competencies. Possible changes include:

- Team redesign to increase communication and collaboration.
- Co-location and shared reporting relationships to improve team functioning.
- Designating time prior to each clinic session for team huddles to prepare for the day to come and support the team's ability to meet preventive or chronic care needs of patients.
- Enabling medical assistants to function at peak capacity, including providing patient education and self-management support through motivational interviewing.
- Training front desk staff on patient engagement, scheduling techniques to support continuity of care goals, and outreach to patients for planned care visits or other necessary services.

Policies and procedures must be in place to ensure patients can reliably see their assigned provider and build relationships with the care team.

Team Roles

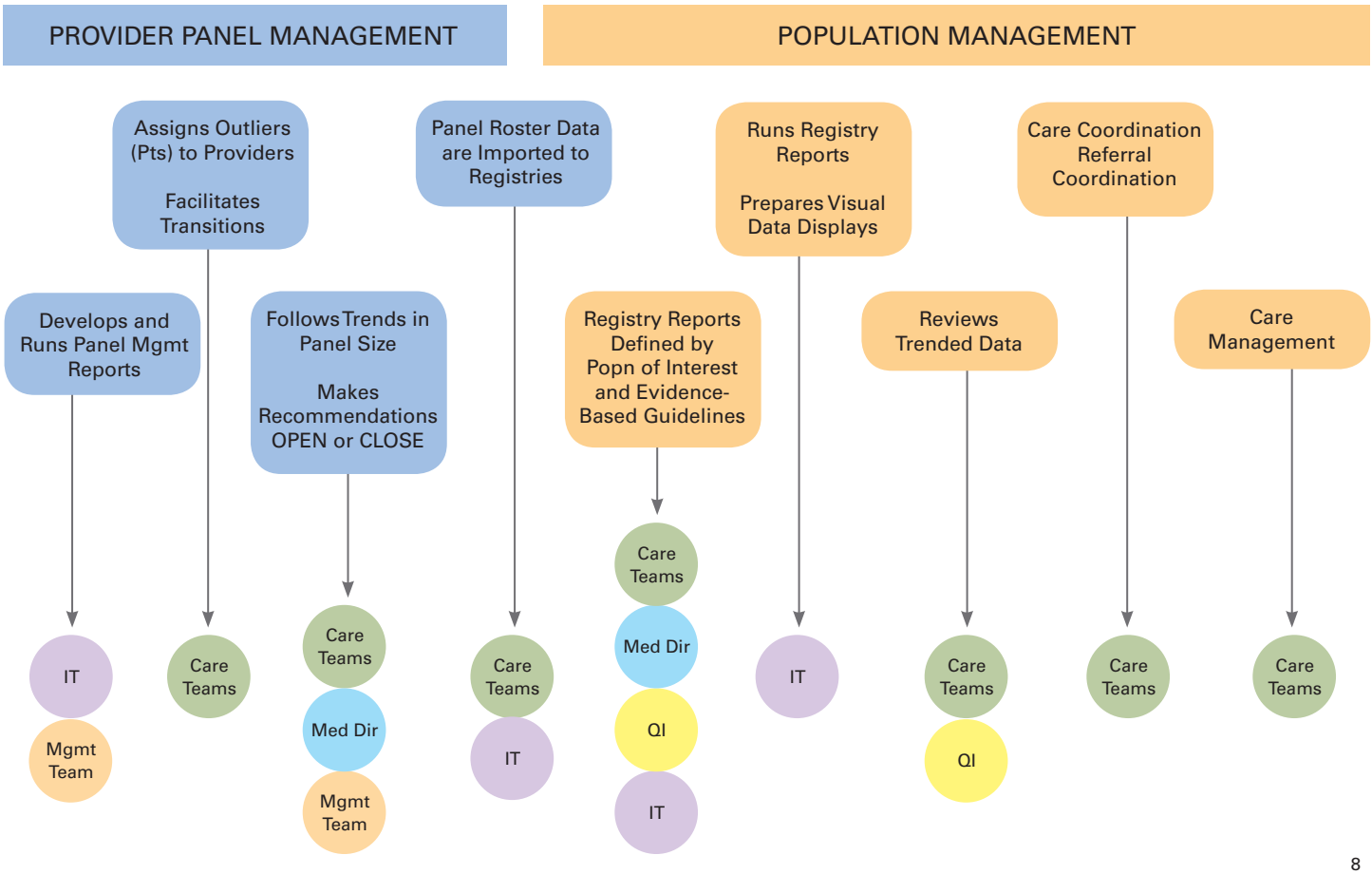
Patient

The center of the team is the patient. While initial empanelment is based on historical data and assumptions, it is important to remember that the PCP/care team is ultimately the patient's choice. Patients must be informed and activated about the empanelment process. Patients should be encouraged to select a primary care provider, engage in care with that provider and care team, and request a change in PCP when desired or necessary.

Panel Manager

There are two distinct roles for the panel manager. The first is that of **provider panel management**, which encompasses the administrative tasks of evaluating supply and demand and balancing panels on an ongoing basis. The second is that of **population management**, in which care teams identify subpopulations of interest and use technology tools to enable varying degrees of care management for each provider's panel of patients. The panel management functional chart below illustrates the continuum of panel management activities. The practice may use one information system across the continuum, or separate systems for provider panel management (the practice management system) and population management (EHR and/or registry application). Tasks are identified in the blocks across the center of the diagram. Internal "touch points" to other individuals engaged in these tasks are identified in the bubbles at the bottom of the diagram.

PANEL MANAGEMENT FUNCTIONAL CHART



In this Guide, we will focus on the provider panel manager. To learn more about care management, see the Organized, Evidence-Based Care Implementation Guide.

In a small- to medium-sized practice, the role of panel manager may be filled by an existing staff member and the key responsibilities added to the job description. A larger organization may want to hire a full-time panel manager as the number of reports and level of analysis increase with the number of providers on staff.

Three feasible empanelment staffing approaches are described in Table 1: Approaches to Empanelment.

Table 1: Approaches to Empanelment

Approach #1	Approach #2	Approach #3
The Super-Sized Practice	The "Regular Sized" Practice	Directed through QI Structure
More than 10 providers	Fewer than 10 providers	QI director assumes role of panel manager (administrative)
More than three practice locations	IT runs panel reports; care teams responsible for review and action	Direct liaison to care teams for population management
Centralized full-time panel manager (administrative)	Panel management is led by RN/LVN/LPN/MA supporting the care team	Care teams prepare trended population management reports for QI committee and structured reporting chains
Liaison to care teams who are responsible for population management efforts	Panel manager has "trifecta" role: • Panel management (administrative) • Clinical support of care team • Population management	
Liaison to the QI committee		

Recruiting criteria for the panel manager should include the following:

- Knowledge of clinic operations (in order to interpret and validate data findings).
- A customer service orientation (in order to facilitate transitions of care for patients changing providers or changing service locations).
- Data analysis skills.

The position will be involved with clinic managers, providers, and care teams, and should report to senior management.

Key Responsibilities of the Panel Manager

- Receives monthly panel report and reviews PCP assignments. The monthly panel report consists of: all patients seen in specified month, assigned PCP, treating provider.
- Determines continuity percentages for each provider; adjusts for vacation coverage schedules and other factors.
- Resolves unassigned patients by reviewing appointment history (and possibly the clinical record) to determine appropriate assignment.
- Monitors influx of new patients into provider panels and analyzes provider capacity to absorb new patients; reviews issues with medical director and reassigns as appropriate.
- Assesses panel size against "right size" and discusses any needed adjustments with the medical director and/or management team.
- Tracks patient status changes including death, transfers to other care, and makes the change in the practice management system.
- Reviews transfer of care requests, including:
  - Patient-initiated PCP-change requests; facilitates discussion between and obtains approval from current assigned PCP and future PCP; makes the change in the practice management system.
  - Provider-initiated PCP change requests. Facilitates discussion between current PCP and potential future PCPs; obtains agreement of acceptance by the new PCP. Makes the change in the practice management system.
- Tracks provider status changes (transfer, termination, sabbatical, medical leave, etc) and:
  - Evaluates impact on assigned panel of patients.
  - Reassigns panel to other clinic providers according to panel capacity.
  - Notifies affected patients of new PCP assignment.

Responsibilities of Other Practice Staff

Practice staff support the empanelment process and the patient-team relationship in a number of ways.

Appointment Scheduling/Call Center Staff

- Confirms PCP assignment when making appointments.
- Reports discrepancies via appointment notes in the scheduling system.

Front Desk Staff

- Confirms PCP assignment of established patients at check-in.
- Assigns new unassigned patients to provider scheduled for first appointment.
- Documents discrepancies between patient's stated PCP and system assignment; alerts care team of discrepancy.

Care Team

- Confirms PCP assignment with new patients.
- Resolves discrepancies with provider assignment for established patients.
- Submits PCP assignment change request form to panel manager upon request by patient, provider, or management team.



What to Consider Before You Begin

Before beginning the empanelment process, it is important to consider the practice's resources, including health information technology and provider staffing structure.

Health Information Technology

Information systems with registry functionality, either embedded in the EHR or a separate application interfaced to the EHR, enable providers to examine a full panel of patients or selected sub-populations within a panel, (e.g., people with diabetes, obese children). These subpopulations of interest are reviewed and analyzed in order to identify groups or individual patients in need of additional care management or other attention. This examination enables practices to schedule and organize planned visits with patients, and more effectively use outreach resources to identify and respond proactively to patient need. For more information, see Appendix B: Empanelment and Health Information Technology.

Before embarking on empanelment, it is critical to evaluate the capabilities of the practice's existing technologies. The following items should be considered:

- **Is your practice management system capable of running large visit history reports? What types of reports can your system provide?**
  The visit history report is a look back at all of the visits for active patients in the past two years, denoting which clinician saw the patient at each visit. This report will be very large. Reports are typically structured as follows:

Patient	Visit Date	Provider
Patient Aaa	1-15-12	Dr. Goode
Patient Aaa	3-1-12	Dr. Goode
Patient Aaa	3-20-12	Dr. Monroe
Patient Aaa	8-2-12	Dr. Monroe
Patient Aaa	10-29-12	Dr. Schafer
Patient Bbb	2-2-12	Dr. Schafer
Patient Bbb	5-14-12	Dr. Goode
Patient Bbb	9-30-12	Dr. Schafer

  Once generated, staff can export this large report to Excel and generate pivot tables to determine how often patients are seen by practice providers. This report detail provides the best foundation for initiating empanelment. However, if the practice does not have a staff person who understands advanced Excel functions, the practice will have either to contract for data configuration and report setup or start fresh by setting up a simple reporting format with a selected field for assigned PCP.

- **Is there a distinct data field for PCP?**
  The practice must specify a data field for PCP assignment to enable panel management. Some practice management systems use data fields for "assigned PCP," "attending," "rendering," and "billing" providers. It is important to note that, on any given date of service, the latter three may be different from the assigned PCP. Some health plans auto-assign members to specific providers, rather than to the practice or medical group. An empanelled practice will internally assign patients to PCPs, and the assigned PCP may or may not be the same one as assigned by the health plan. "Look back" reports for visit history are not necessarily based on the PCP field, but empanelment and continuity reports generated in the future will be.

- **How will you run the required reports for ongoing panel management?**
  In some settings, the panel manager will be able to run reports independently. In others, the IT department must run the reports. Ideally, the practice will establish routine report formats and a reporting calendar which can be managed by the panel manager.

Leadership Action

- Ensure that the necessary data fields exist and properly mapped report formats are developed.
- Ensure staff have access to appropriate HIT applications to support the necessary reporting.

Determine Which Providers to Empanel

In an empanelled practice, all patients will be assigned to a primary care provider. However, not all providers in the practice will be able to carry a panel.

Part-Time Providers

Continuity of care is difficult to ensure when providers work less than 0.6 FTE (24 hours per week). While many practices rely on part-time providers, either paid or volunteer, this hiring structure compromises the practice's goals for continuity and quality of care. There are two primary solutions to handle part-time providers:

- Blend two part-time providers into a single "coverage" team constituting one full FTE in a formal job-share arrangement. This is a workable solution, but must be done carefully. The two part-time providers must have similar practice styles including personality, approach to preventive care, philosophy on use of medications, etc. The appointment schedule must be offset to ensure that at least one provider is available for all clinic sessions throughout the week; if no provider is available for a clinic session, access and continuity are disrupted. Assigning a common clinical support team member (such as RN, LPN/LVN, MA) as the "anchor" for the team and representing the team in conversation with patients is also critical.

- If a part-time provider reliably keeps the same schedule throughout the year, (e.g., every Monday morning and afternoon), and typically sees the same patients over and over, it is possible to empanel the provider. However, it is still necessary to link the part-time provider to a practice "coverage" partner to ensure coverage for all practice sessions.

Part-time providers who are not assigned to a "coverage team," as in the first example, should be used by the practice as internal *locum tenens* ("floats") who provide coverage for providers who are absent. Part-time providers can also be assigned to urgent care services.

Mid-Level Providers

The mid-level provider (nurse practitioner or physician assistant) plays a vital role in the primary care setting. The decision to empanel mid-level providers is dependent upon the practice's philosophy. The medical director typically determines the practice's level of comfort in assigning panels to mid-levels. Considerations and exceptions include:

- A new graduate mid-level provider would not be expected to carry a full panel initially, and care must be taken to ensure that this new provider does not become overwhelmed with complex patients.
- Mid-levels used for wellness exams only would not be expected to carry a panel.
- A mid-level could be teamed with a physician (either part-time or full-time) to ensure coverage at all times.
- NCQA extends PCMH Recognition to mid-levels only if they are assigned panels.

Specialty Providers

Empanelment is intended to support the ongoing healthcare needs of patients, including preventive care and acute and chronic care needs. Sometimes specialists are important co-managers of patients' health. If the specialists are co-located with the primary care practice, the practice may want to develop a data field for co-managing PCP. Examples include:

- If a women's health department is contained within the practice, and female patients choose to receive all of their care in that department including care outside of gynecologic services, women's health providers may be empanelled.
- Obstetrical patients with an assigned family practice PCP will not be re-empanelled during the prenatal period to an OB provider.
- Some chronic diseases require co-management by a specialist. A child with sickle cell disease will likely require the attention of a hematologist for ongoing clinical support. A 60-year-old patient with chronic obstructive pulmonary disease may require ongoing clinical support from a pulmonologist. These specialists would be designated as co-managing PCPs.

Medical Residents

The academic health system with medical residents rotating through ambulatory care clinics may encounter challenges in moving toward empanelment. In some instances, it may be necessary to restructure the residency training program in order to provide stable coverage.

Organizations have found success in using the academic faculty provider as the paneled provider, and creating a coverage team consisting of the faculty provider, one third year resident, one second year resident, and one first year resident. The third year resident will spend more time in clinic than the others, and the faculty provider will oversee the clinical care provided by all.

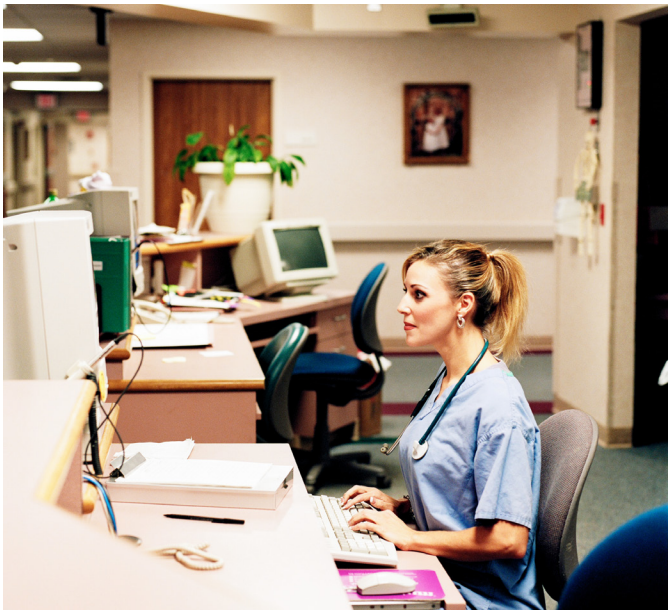
This arrangement provides continuity of care through the consistent direction of the faculty provider and the consistent schedule of the third year resident. Each year, patients become familiar with the first, second, and third year residents, so as the senior resident rotates out, the remaining residents are stable clinical support for patients.

Leadership Action

Establish a staffing and scheduling policy to embed empanelment in the practice and clarify goals and expectations. The policy should include descriptions of:

- Which providers will be empanelled.
- Part-time provider job-share arrangements, if desired.
- The composition of the practice team.
- Scheduling expectations.
- Productivity expectations.

For more information on staffing and scheduling, see the corresponding tool, Sample Provider Staffing and Scheduling Policy.



Pre-Empanelment Work

1. Ensure reporting capability from the practice management system. (See Appendix B: Empanelment and Health Information Technology.)
2. Purge all inactive patients from the practice database using the organization's timeframe for defining active patients, (e.g., 18 months, two years).
3. Determine the practice's Average Visits per Patient per Year (AVPY) rate. This number is influenced by each practice's and each provider's unique patient population. The national average is 3.19 visits per patient per year, spanning all practice environments and populations.[8] While the national averages listed below by specialty and age group can be used for convenience, panel management data will be more accurate if the practice's own AVPY is used. If the clinic has multiple service areas (e.g., pediatrics, adult medicine), determining the AVPY for each service area will be important. It is advisable to determine the AVPY for each provider, comparing across the entire provider staff, in order to understand factors influencing each provider's rationale for recommended return visits to the practice. This number has an impact on how accessible the practice is for patients.

Table 2: Average Visits per Patient

Average Visits per Patient per Year by Specialty	
Internal Medicine	4.5
Family Practice	3.5
Pediatrics	2.8

Average Visits per Patient per Year by Age Group	
0-1 yo	6.7
1-4 yo	2.8
5-14 yo	1.9
15-17 yo	1.0
18-44 yo	3.1
45-64 yo	4.1
65-74 yo	5.2
75+ yo	5.5

Source: Adams PF, Barnes PM. Summary health statistics for the U.S. population: National Health Interview Survey, 2004. National Center for Health Statistics. Vital Health Stat 10(229). 2006.
Note: At first glance, the AVPY for pediatrics appears low. It is important to recognize that children under age two have a high utilization, and adolescents have a low utilization. When averaged across all age groups in the pediatric population, the national average for visits per pediatric patient per year is 2.8.

4. Determine a right size for each practice provider. "Right size" is the number of patients the provider can support based on current appointment supply and known patient demand. Right size is not fixed and will vary for each provider.

   Calculate: $\frac{\text{provider appt slots available per year}}{\text{average visits per patient per year}}$

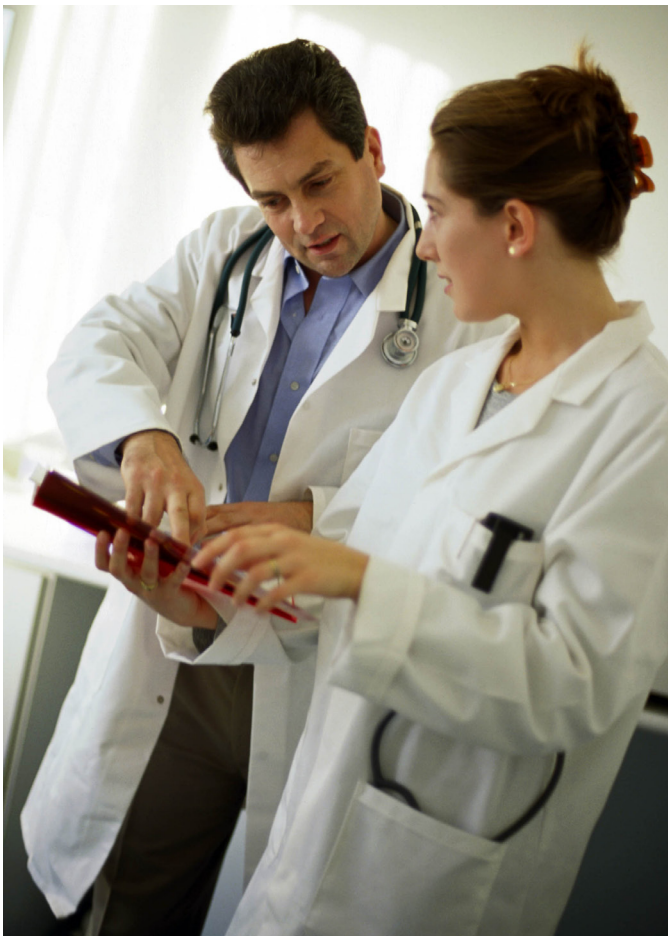
5. Determine patient demand for services. This number tells you how many appointment slots are needed to support the current population.

   Calculate: number of unduplicated patients seen in past year x average visits per patient per year

6. Determine provider supply for patient access to services.

   Calculate: number of appointment slots available in the past year

For a worksheet to help run the above calculations, see the corresponding tool, Determining the Right Panel Size.



Steps to Empanelment

1. **Review patient visit history.**
   Generate a report of active patients from the practice management system showing visit history for patients seen at least twice in the past 18 months. Two years is a better timeframe for safety net practices. The report should contain the following information:
   - Column headers: MRN, Patient Name, DOB, Visit date, Assigned PCP, and Provider Seen.
   - Do not include visits to specialty providers (e.g., OB, podiatry, behavioral health, dental).
   - Do not include "nurse only" visits.
   - The first report will be sorted by patient. If panels are not yet assigned, begin to do this based on visit history.

2. **Review initial panel assignments.**
   a. Sort the above report by assigned PCP (if assignments have already been made) to identify initial panel sizes and identify patients not yet assigned.
      - Use this report to determine continuity of care. Apply a random selection methodology to obtain 30 records or 5% of the total "panel" and determine the percentage of time that the patient sees his/her assigned PCP.
      - A panel list may emerge for providers who are no longer with the organization. These patients must be reviewed and re-assigned to active providers once panel assignments are complete and capacity for growth is determined.

   b. For pediatric practices, sort the report by age.
      - Identify patients 17 years and older, and develop a plan to transition these patients to adult care.
      - Identify the numbers of patients in various age groups to determine their appointment utilization. See Table 2: Average Visits per Patient under Pre-Work Steps to compare your patient's utilization to national averages.

3. **Apply the Four-Cut methodology**[8,9,10] to assign patients not already assigned to a PCP, as below:

Table 3: The Four-Cut Methodology

Cut	Report Description	PCP Assignment
1st cut	Patients who have seen only one provider in the past year.	Assigned to that sole provider.
2nd cut	Patients who have seen multiple providers, but one provider the majority of the time in the past year.	Assigned to majority provider.
3rd cut	Patients who have seen two or more providers equally in the past year (no majority provider can be determined).	Assigned to the provider who performed the last physical exam.
4th cut	Patients who have seen multiple providers.	Assigned to last provider seen.

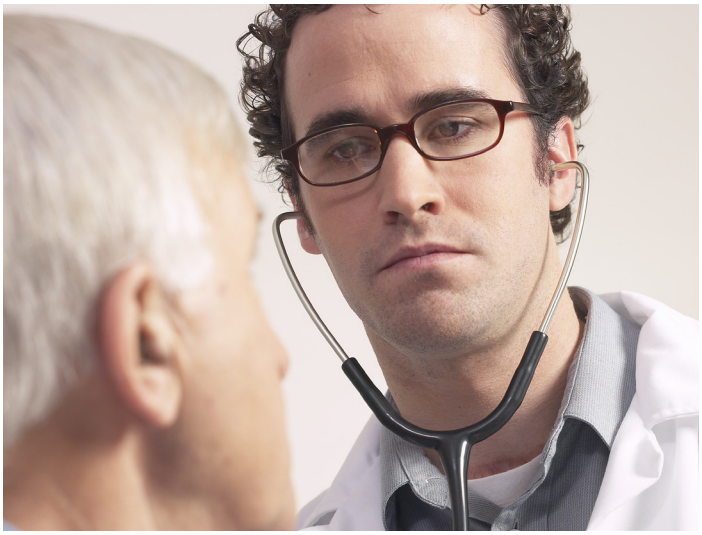
Source: Murray M, Davies M, Boushon B. Panel size: How many patients can one doctor manage? *Fam Practice Mgmt.* 2007;14(4):44-51.

4. **Providers review their individual preliminary panel reports, amend as necessary, and adopt the final panel.** Compare the total number of patients on the preliminary panel reports to each provider's calculated "right" size. Are the numbers close? Is the provider over-paneled or under-paneled?

5. **The practice may desire to "weight" panels to ensure equity across providers.** Weighting can be done by age group, gender, morbidity, or acuity. Conducting weighting activities as the initial panel assignments are set, and reviewing annually to guide adjustments in panel size, is more efficient than weighting after panel assignments are set.

    - **Weight by age group and gender.** Weighting patients allows a practice to adjust panel size based on historical utilization of patients with specific profiles. Adjustments for age and gender capture most of the risk for outpatient utilization. For a table of weighted panel data, see Appendix A: Weighted Panel Adjustments by Age and Gender.
    - **Weight by morbidity.** There are two approaches to adjusting panels in terms of morbidity. The first is based on utilization trends, the other is based on algorithmic risk adjustments.
        - A practice can determine utilization trends of chronic care populations and forecast the number of appointment slots needed to provide care for those patients with chronic illness. For example, diabetic patients should be seen four times per year and will likely be seen for an additional two sick visits, making their utilization six visits per year. Recognizing this, the provider must plan to have enough appointment availability to meet the demands of the total number of diabetic patients on the panel. This effort is of most value when beginning the empanelment process. Practices can evaluate the volume of, and equitably distribute, the most complex patients amongst appropriate providers. A semi-annual look at this distribution will ensure that no one provider is overloaded with highly complex patients.
        - Another option is to apply a risk adjustment factor to provider panels to balance panel size across the practice. However, experience with empanelment modeling shows that there is limited benefit to formally weighting panels by morbidity using these complex algorithms. Mark Murray, a national expert on the empanelled practice, recommends that practices first consider how age and acuity factors can be managed by focused team support before attempting to adjust panel size.[10]
    - **Weight by acuity.** Patients' social determinants of health may influence demands on the provider, care team, and appointment schedule. For a useful tool in risk-adjusting the provider's panel based on complexity, see the Patient Acuity Rubric. Note: This tool is most helpful in assigning acuity levels to adult patients.

6. **The panel manager (or designee) revises the panel report.**



Patient Identification of PCP

Patients should be encouraged to select a PCP at the time of initial registration with the practice, and informed of their right to request re-assignment at any time. In the event that a patient does not select his/her own PCP at initial registration, the practice should make the assignment based on some simple assessment factors, including patient's preference for gender of provider, language needs, etc.

Patients should be engaged in the process of choosing and validating PCP assignment, which can be accomplished through scripting for front desk staff. To learn more, see the corresponding tool, Scripting for Appointment Scheduling. The practice will need a set of policies and procedures to define on-boarding and PCP assignment processes.

When patients call the clinic for an appointment or other reason, the person receiving the call should always ask, "Who is your assigned care provider?" This will help the patient remember the provider's name, ensure that the call is routed to the appropriate care team, and ensure that the appointment is made with the appropriate provider.

Other ways of communicating and reinforcing the PCP-patient link include:

- Patient ID card containing the name of the practice/clinic, patient medical record number, appointment line phone number, PCP name, and care team contact for medical advice.
- PCP name printed on the after-visit summary.
- PCP name (or team names) printed on the appointment card.
- PCP identified on the billing documents (e.g., copy of encounter form, monthly statement).
- Care team photos can be posted on the bulletin board in the provider's assigned exam rooms.
- Name and/or color-code the teams: Red Team, Blue Team; East Pod, West Pod.

Leadership Action

- **Develop a PCP assignment policy including initial assignment, transfers, transitioning care, etc.**
- **Design and support methods for patients to identify their care team. Create identification that reinforces the patient-team relationship.**

Case Study: Empanelment in an Federally Qualified Health Center

Multnomah County Health Department, Portland, OR (2009)

The Multnomah County Health Department in Portland, Oregon, consists of six primary care clinics and one specialty HIV primary care clinic. The department serves approximately 32,000 patients who generate more than 140,000 visits annually, has on-site pharmacy, laboratory and x-ray, 13 school-based health centers, four dental clinics, and has been involved in patient-centered medical home transformation since 2006. The department has been using the Epic electronic medical record system since 2005.

Like most clinics or health centers, prior to empanelment, patients coming into the clinic would see whomever was on the schedule. The department also had to address the fact that although some providers worked hard to see all patients, others did not. Providers also experienced great variability in the complexity of patients seen.

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When the department began to discuss the patient-centered medical home model, leadership began to realize, "If a primary tenet of the Medical Home is the continuous relationship between a team of providers and an informed patient…then we must provide a mechanism for allowing that relationship to happen in our systems," says Amit Shah, MD, Medical Director. The process of empanelment was initiated to fairly distribute workload to individual providers and care teams, rationally align supply and demand, and allow for data-driven decisions to open or close panels or add provider FTE.

Multnomah County Health Department's process of empanelment had four primary steps:

1. Assess supply and demand. This was done predominantly through collecting information on current provider FTE and specialty.
2. Assign patients to PCP. After assessment, checks were conducted to see if patients already assigned to a PCP should belong to that PCP, and unassigned patients were assigned to a PCP using the Mark Murray "Four-Cut" Method. However, instead of rigidly adhering to the Four-Cut method, clinic teams talked through patients who had seen many providers to assign them to a PCP.
3. Review. All providers were allowed to review their panel for correctness, which allowed ownership of the panel.
4. Risk-Adjust. The risk-adjustment step was critical as variance for specialty was considered as was weighting by age and gender or complexity and morbidity. For clinics with multiple specialty practices, average patient visits per provider was allowed to be different by specialty. Weighting by age and gender must be a zero-sum game. A 50-year-old female who is assigned a weight higher than one must be accompanied by a patient with a weight less than one so as not to over-panel a provider. Weighting by complexity was by nature more complex. "We kept running into the problem that some family practice panels looked more like internal medicine panels," says Dr. Shah. Multnomah is currently modeling diagnoses that predict higher utilization to weight patients by number and type of diagnosis.

If a primary tenet of the Medical Home is the continuous relationship between a team of providers and an informed patient…then we must provide a mechanism for allowing that relationship to happen in our systems.

—Amit Shah, MD, Medical Director

Multnomah started the process of empanelment with one pilot clinic. After this process was successful, the Four-Cut strategy was rolled out in all clinics. The process of empanelling all patients took approximately six months.

Sustaining empanelment required buy-in and support from leadership and also involved implementation of a number of new policies. Multnomah implanted a process for assigning a patient to a PCP panel at or before his or her first visit. PCP validation and ensuring assignment is conducted at check-in. Unassigned patients are identified monthly and are assigned using the Four-Cut method. New policies were developed including: how to change providers at the patient's request, the number of new patients based on the percentage of full panels, how to transfer to another clinic, minimum provider days in clinic and provider coverage with practice partners. As a Federally Qualified Health Center (FQHC), Multnomah is responsible for all patients who been seen in the last three years. Active patients are defined as having used a service in the last 18 months. Actively managed patients are defined as those seen in the last 12 months.

PCPs and teams are encouraged to have ownership of a panel allowing for local innovation. Ownership of a panel also means that PCPs have the ability to identify provider team level metrics and individual patients in need of services leading to improvement. Teams determine how to meet the needs of their own paneled patients such as managing vacation schedules.

Analyze Panel Size

Over-paneled versus Under-paneled?

Compare demand to provider's supply of appointments for the coming year. Does supply equal demand? Although patients will naturally move away, die, or change insurance plans, thereby reducing demand on the practice, changes may need to be made to ensure that appointment demand can be met. These might include:

- Close the panel of the over-paneled provider.
- Excuse the over-paneled provider from absentee coverage of other providers.
- Add new providers.
- Add new support staff, including medical assistants or nurses, to increase efficiency of existing providers.
- Explore new ways to increase efficiency of existing providers. No-cost methods of increasing provider efficiency include shared charting responsibilities, keeping to schedule, managing no-shows, and discouraging walk-ins.
- Add new exam rooms. Experience shows that three exam rooms per provider/care team can optimize patient throughput.
- Determine if the over-paneled situation truly is an overload situation. Review tolerances of the over-paneled provider. Be sure to examine all aspects of the final panel number; look at the number of patients by age group, and number of patients requiring chronic care management. A provider may be able to tolerate higher numbers of pediatric patients, but not a high number of diabetics because of the intensity of the care required.
- Remove patients from the over-paneled provider, as necessary. In this case, the panel manager, provider, or care team designee should inform the patients of the change, encourage them to select a new provider, and support engagement with the new provider/care team.

Compare the final panel roster total to the calculated right size. Is the provider over-paneled or under-paneled? The final panel numbers may not necessarily be accurate in representing that a provider is over- or under-paneled. Consider the following example:

Provider ABC is full time. The clinic is open 261 days per year, and the provider has a schedule of 186 days per year (subtracting holidays, admin time, vacation and sick accrual, and CME allowances). The provider's schedule template has 27 appointment slots per day. The provider saw 2250 unduplicated patients last year, and the practice's AVPY is 2.69.

The provider saw 2250 unduplicated patients in 2011, but the Right-Sized Panel calculation, from the corresponding tool, is 1867 patients. The provider appears to be over-paneled by 383 patients.

Before making decisions to mitigate the over-paneled scenario, consider the following steps:

- Evaluate the data by age group; a provider may be able to see more pediatric patients if the adult chronic disease burden is light.
- Ask the provider and care team members about the panel size in relation to their workload and ability to function as a team. The care team may report that they are fine even though their panel size looks overly large.
- Ask the patients about their experience in the newly paneled practice. Can they get an appointment easily when they want one? Is the patient able to see their provider/care team, or are they displaced to another provider?

Table 4: Example Panel Analysis

Initial Dimensions Of Analysis				
Working Days per Year		Appt Slots per day		Supply
186	x	27	=	5022 appt slots/year
Undupl pts seen 2011		AVPY		Demand
2250	x	2.69	=	6053 appt slots/year
Panel Size Analysis				
Appt slots per year		AVPY		Right Panel Size
5022	/	2.69		1867 patients
Undupl patients seen in 2011		Right Panel Size		Over-paneled?
2250		1867		383 patients too many
Appointment Capacity Analysis				
Demand		Supply		Need more supply
6053	---	5022	=	1031 appt slots/year
Appt slots needed		Appt slots per day		Need more supply
1031	/	27	=	38 days / year

In an over-paneled situation, the practice will want to review options for reducing patient demand for services. To learn more about methods of reducing unnecessary demand, see the Enhanced Access Implementation Guide that discusses:

- **Max packing visits:** providers explore issues beyond a patient's immediate presenting problem.
- **Extending revisit intervals:** assure patients of provider availability while increasing time between visits.
- **Offering group visits/shared medical appointments:** offer patients with a chronic disease or prevalent condition (such as prenatal patients, sports physicals) the opportunity to utilize this service.



Degree of Teamness Affects Panel Size

In a team-based practice, all care team members perform at the top of their licensure/credential and skill level to ensure patient needs are met. To learn more about team-based care, see the Continuous and Team-Based Healing Relationships Implementation Guide.

Well organized, interdisciplinary care teams that share responsibility for patient care allow for larger panel sizes.

Many tasks currently performed by primary care clinicians can be safely and effectively delegated to non-clinician team members or delivered through HIT without direct PCP involvement (e.g., standing orders for mammograms that are enacted by medical assistants during visits or by patients scheduling mammograms directly through an electronic patient portal). For example, one new study from Duke University's Department of Community and Family Medicine[11] estimates that 77% of provider time currently spent on preventive care services (e.g., screening, counseling, immunizations, chemoprophylaxis) can be delegated to non-clinician team members. This percentage varies depending on patient diagnosis and control of conditions. In caring for patients with chronic diseases, for example, researchers estimate that 75% of provider time spent with patients in good control can be delegated and 33% of time with patients in poor control, yielding an average of 47% of time and activities given to team members. Activities in this category include patient education, behavior change counseling, medication adherence counseling, and some protocol-based services. The provider continues to support all acute care needs.

In a practice setting in which no preventive and chronic disease care tasks are delegated, providers can manage an estimated panel size of 983 patients. By delegating tasks as suggested above, maximum panel size jumps to 1947 patients. Allowing for lower efficiency and other limiting factors, the model is scaled slightly to yield panel sizes of 1523 and 1387, both of which are substantially greater than the panel size of 983 in the non-delegated model.

Table 5: Estimated Panel Sizes Under Different Models of Physician Task Delegation to Non-physician Team Members[11]

Non-delegated Model (Panel = 983)			**Delegated Model 1 (Panel = 1947)**		**Delegated Model 2 (Panel = 1523)**		**Delegated Model 3 (Panel = 1387)**	
Type of Care	Time Delegated %	Hours per Patient/ Year	Time Delegated %	Hours per Patient/Year	Time Delegated %	Hours per Patient/Year	Time Delegated %	Hours per Patient/ Year
Preventive	0	0.71	77	0.16	60	0.28	50	0.35
Chronic	0	0.99	47	0.53	30	0.70	24	0.75
Acute	0	0.36	0	0.36	0	0.36	0	0.36
Total	-	2.06	-	1.04	-	1.33	-	1.46

Source: Altschuler J, Margolius D, Bodenheimer T, Grumbach K. Estimating a reasonable patient panel size for primary care physicians with team-based task delegation. *Ann of Fam Med.* 2012; 10(5): 396-400.
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Ongoing Monitoring and Adjustment

The panel manager is responsible for ongoing monitoring, analysis, and adjustment of individual provider panels. At the outset of empanelment, it is important to run panel reports every month to check for outliers. Once the process is entrenched, a quarterly review of panel size will be sufficient. On an annual basis, the practice may elect to review provider supply for the coming year to ensure that there is enough appointment availability to meet the demands of the current panel size. The panel manager continuously monitors the following, and makes panel adjustments accordingly.

Provider Status Changes

- Adjustments in FTE, terminations, leaves of absence, transfers to other clinic location.
- On-boarding new providers.
- Transfer of care upon request by provider.

Patient Status Changes

- PCP assignment (new patients).
- Adolescent transition to adult care.
- Transfer of care upon request by patient and/or family.
- Patient self-discontinues care by seeking health services in another practice, or moving out of the area.
- Death.

The practice must define how to manage PCP assignments under a variety of conditions, including assigning new patients, and assigning and/or transferring existing patients. To learn more, see Sample PCP Assignment Policy.

Periodic use of a **continuity of care report** measures empanelment effectiveness. Continuity of care reports should be run routinely (monthly or quarterly) to review frequency of patients being seen by their assigned primary care provider. While a practice might strive for 100% continuity, this is not realistic because patients may, on occasion, opt to see a provider other than the assigned PCP. The goal is not that a provider achieve 100% continuity, but that the **patient achieves continuity by seeing only his/her provider/care team**.

Table 6 below demonstrates the organizational empanelment goals and progress toward these goals. The panel manager will be working with a roster of unassigned patients periodically to ensure that the organization meets its empanelment goals. Continuity trends are evaluated at the provider and practice levels, and interventions applied as appropriate to ensure a high degree of continuity.

Table 6: Sample Continuity of Care Report

Total # of Patients	Total # of Patients Empanelled	% of Patients Empanelled	Clinic Goal for Empanelment	Comments
11096	9740	87%	85%	Goal met
A–Provider Name	**B–Total # Visits Last Month**	**C–# Visits to Assigned PCP**	**D–# Visits to Other PCP**	**E–Continuity Percentage (C/B)**
Dr. A	166	114	52	69%
Dr. B	266	170	96	64%
Dr. C	239	213	26	89%
ABC, ARNP	10	9	1	90%
DEF, ARNP	145	47		32%
Average Continuity %				72%

Declaring Open and Closed Panels

The panel manager is responsible for comparing panel size and anticipated demand for each provider on a routine basis. When there is evidence that a provider is over-paneled, the panel may be closed to new patients, upon the discretion of the provider, the medical director, and/or management team.

Leadership Action

- Define panel minimums and maximums.
- Determine mitigating steps to alleviate over-panelment.
- Determine length of time the panel will be closed to new patients.



Case Study: Benefits from Empanelment in an Urban Clinic

Silver City Health Center, Kansas City, KS (2011)

Silver City Health Center in Kansas City, KS is an urban, academically affiliated, nurse provider safety net clinic began empanelling patients in late 2009. To do so, the clinic developed an acuity assessment for patients, many of which were non-English speakers and with multiple co-morbidities. The results surprised everyone when one provider, who had been feeling constantly "swamped," in his words, looked at his patient load based on acuity and discovered his was by far the highest need group of all of the providers.

Edwin Galan, MSN, MA, ARNP, FNP-C, says, "Empanelment helped to justify that I was bogged down and feeling like I was behind all the time. For me, it was because of the volume and intensity of the specific patient population."

"I would recommend empanelment," says Galan. "It's the ideal, and the sooner an organization can do it the better, because it will help those who are visually or numbers-inclined to see for themselves what the workload distribution is like. This will help in other ways, like creating a better work environment that might help in retention and especially the overall patient and employee climate. By virtue of the balancing (or patient reassignment or redistribution) you are going to make a better environment for the providers and the patients. Things in the end are hopefully smoother and better organized which helps a clinic deliver more consistent and patient-centered care." Other benefits of empanelment seen by Silver City Health Center include:

- Increased provider engagement with patients.
- More patient-focused visits.
- Reduced no-show rate.
- Greater patient satisfaction.
- Greater staff satisfaction.

Team Ownership of the Panel: Population Management and Quality Improvement

Once the panel roster is finalized, the care team can use the panel to create "registries" of like patients, (e.g., patients with diabetes, asthma, pregnancy, other conditions of interest). Registry reports can be run to indicate patients who are lacking specific services or who need additional care management support. The care team now owns the panel and is responsible for the care that each patient on the panel receives.

To ensure preventive care and prevent care caps, the care team assigns responsibility for targeted outreach to get patients in for the care they need. This outreach activity is an important part of population health management and should be measured as part of the practice's quality improvement (or performance improvement) program. Team-level monthly trend data should be captured and reported back to the quality improvement committee/team and to others (e.g., patients, the board). To learn more about measurement in a PCMH, see the Quality Improvement Strategy Part 1 Implementation Guide.

After panels have been defined and reviewed, the practice can also consider a variety of other management techniques to meet daily patient need. For example:

- Care team management: Assign a member of the care team as a liaison to the panel manager.
- Establish coverage for planned provider absences to ensure adequate appointment supply at all times.
- Build access agreements, including:
  - Allocating visits for unassigned patients who call or walk in.
  - Adopting appointment guidelines when the panel is full.

To learn more about access and scheduling in a PCMH, see the Enhanced Access Implementation Guide.

The care team now owns the panel and is responsible for the care that each patient on the panel receives.

Conclusion

As the primary driver of continuity and access, empanelment is an essential early step in PCMH transformation. Empanelment calls practices to take an organized, proactive approach to improving the health of a population of patients. Empanelment allows a provider to build an effective and responsive care team that can best meet the needs of his/her panel of patients. The primary care provider (PCP) is the leader of the care team, which is responsible for the ongoing comprehensive and coordinated care of the patients on the panel roster. Accepting responsibility for this finite number of patients, instead of the universe of patients seeking care in the practice, allows the provider and care team to focus more directly on the needs of each patient. The work of empanelment is hard, yet fruitful for patient, provider, care team, and the practice as a whole.

Appendix A:
Weighted Panel Adjustments by Age and Gender

Age and Gender Specific Panel Adjustments				
Age Range	Age (Months)	Relative Weight	Male	Female
0	0	11	5.02	4.66
1	12	23	3.28	2.99
2	24	35	2.05	1.97
3	36	47	1.72	1.62
4	48	59	1.47	1.46
5-9	60	119	0.98	1.00
10-14	120	179	0.74	0.79
15-19	180	239	0.54	0.72
20-24	240	299	0.47	0.70
25-29	300	359	0.60	0.82
30-34	360	419	0.63	0.84
35-39	420	479	0.66	0.86
40-44	480	539	0.69	0.89
45-49	540	599	0.76	0.98
50-54	600	659	0.87	1.10
55-59	660	719	1.00	1.20
60-64	720	779	1.17	1.31
65-69	780	839	1.36	1.46
70-74	840	899	1.55	1.60
75-79	900	959	1.68	1.40
80-84	960	1019	1.70	1.66
85+	1020	9999	1.57	1.39

Sources: Murray M, Davies M, Boushon B. Panel Size: How many patients can one doctor manage? *Fam Pract Manag.* 2007;14(4):44-51.

Tantau C. *Panels and Panel Equity: Advanced Access. Information Series.* Chicago Park, CA; Tantau & Associates.

Appendix B:
Empanelment and Health Information Technology

Jeff Hummel, Peggy Evans, Trudy Bearden, Michelle Glatt, Bonni Brownlee
Qualis Health

This addendum is supplemental to the primary Empanelment Implementation Guide.

Empanelment does not require an electronic health record (EHR); however, like the other PCMH Change Concepts, the more sophisticated the Health Information Technology (HIT), the easier it is for an organization to transition to an empanelled practice environment and to manage the ongoing process of supporting empanelment. An EHR allows a PCMH to leverage empanelment to better understand and meet the needs of patients in each care team's panel. Below are examples of how EHR technology can be optimized to support empanelment.

Practice Management/EHR System Features Supporting Empanelment

- **Primary care provider data field(s).** A designated structured data field in each patient's electronic chart is used to record and display the assigned primary care provider (PCP). This field is visible to all users including patient, front office staff, clinical support staff, and provider. Workflows should be specified to ensure that the PCP assignment is documented and periodically verified for each patient.
  - Some practice management systems provide a variety of data fields for recording "assigned PCP," "attending," "rendering," and "billing" providers. It is important to note that, on any given date of service, the latter three may be different from the assigned PCP.
  - An empanelled practice will internally assign patients to PCPs, regardless of any health plan's assignment. The assigned PCP may or may not be the same one as assigned by the health plan.
  - Information in the PCP field must be mapped to a table in the reporting database in order to produce accurate reports.
  - A limited number of staff will be assigned to make changes to the PCP field. Staff must adhere to the PCP re-assignment protocol so that patient requests for PCP change can be quickly accomplished and so that external data from a hospital, emergency department, or specialty practice do not overwrite this field unintentionally.
- **Appointment scheduling.** Receptionists, call center staff, and others involved in making appointments for patients will refer to the assigned PCP field when scheduling appointments for patients. The assigned PCP data field should be visible in both the practice management system and the EHR system.
- **Changing PCP assignment for blocks of patients.** Most PCP re-assignments will be done individually; however, there may be circumstances in which practices desire to move a block of patients in a single transaction. Software should support a procedure for moving groups of patients from a provider leaving a practice to another provider joining the practice.
- **Inactivating individual patients.** Criteria are developed for inactivating patients (e.g., deceased, moved away, not seen within 24 months—or whatever timeframe the organization uses to determine inactive patients) so that they can be removed from a provider's panel. A query using these criteria is run at specified intervals to maintain accuracy of panel reports.
- **Assigning new patients.** Profiles of providers (special clinical interests and skills) and their care teams can be used to guide new patients in selecting a care team based on a patient's demographic profile in the EHR including age, gender, preferred language, and known chronic conditions.

- **Panel size adjusters.** Adjustment factors, or "weights," can be programmed into the panel report and applied to each provider's panel to enable appropriate balancing of provider workload across the practice. Two types of adjusters are:
  - Demographic adjusters. These adjustment factors are based on age/sex (normalized expected utilization).
  - Disease complexity adjusters. These adjustment factors are applied to special populations of patients (e.g., language needs, homelessness, multiple chronic illnesses) that may be unevenly distributed across panels to enable appropriate allocation of resources to care teams.
- **Panel management reports.** In some settings, the panel manager will be able to run reports independently. In others, the IT department must run the reports. Ideally, the practice will establish routine report formats and a reporting calendar for the panel manager.
  - Visit history reports. This large report provides a "look back" at all of the visits for active patients in the past two years, denoting which provider saw the patient at each visit. This report is used to initiate the empanelment process.
  - Continuity reports. Once patients are properly empanelled, the practice can begin measuring and improving how often patients see their own PCP/care team and how often PCP/care teams care for their own patients. Continuity percentages will be determined for each provider, comparing the total number of patients seen by each provider to the number of visits by their own assigned patients.
  - Panel reports. The organization is able to produce panel reports showing patients assigned to the provider/care teams. Patients who have not yet been assigned will be apparent, as will those assigned to providers who are no longer on staff. The panel manager will have responsibility for reviewing the panel reports on a routine basis and overseeing the PCP assignment process.
  - Dashboards. Reporting functionality supports dashboards to assess panel characteristics and monitor discrepancies in panel size and complexity based upon the panels expected demand for access the panel and the care team's capacity.

References

1 Saultz JW, Lochner J. Interpersonal continuity of care and care outcomes: a critical review. *Ann Fam Med.* 2005;3(2):159-66.

2 Haggerty JL, Reid RJ, Freeman GK, Starfield BH, Adair CE, McKendry R. Continuity of care: a multidisciplinary review. *BMJ.* 2003;327(7425):1219-21.

3 Cabana MD, Jee SH. Does continuity of care improve patient outcomes? *J Fam Pract.* 2004;53 (12): 974–80.

4 Grumbach K, Selby JV, Damberg C. et al. Resolving the gatekeeper conundrum: what patients value in primary care and referrals to specialists. *JAMA.* 1999;282: 261-266.

5 Rodriguez HP, Rogers WH, Marshall REE, Safran DG. Multidisciplinary primary care teams: effects on the quality of clinician-patient interactions and organizational features of care. *Medical Care.* 2007;45(1): 19-27.

6 Wagner EH, Reid RJ. Are continuity of care and teamwork incompatible? *Medical Care.* 2007;45(1): 6-7.

7 Starfield B, editor. *Primary care: concept, evaluation, and policy.* New York, NY: Oxford University; 1992.

8 Murray M. Davies, B. Boushon. Panel size: how many patients can one doctor manage? *Fam Pract Manag.* 2007;14(4): 44-51.

9 Murray M, Davies M, Bouchon B. Panel size: answers to physicians' frequently asked questions. *Family Practice Management.* 2007:29-32.

10 Mark Murray & Associates. 12, 18, and 36 month panel. 2007. Accessed September 2009.

11 Altschuler J, Margolius D, Bodenheimer T, Grumbach K. Estimating a reasonable patient panel size for primary care physicians with team-based task delegation. *Ann of Fam Med.* 2012;10(5):396-400.

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