IMPLEMENTATION GUIDE

# CARE COORDINATION
## Reducing Care Fragmentation in Primary Care

May 2013

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This Implementation Guide begins with an introduction that defines care coordination and the recommended key changes for safety net practices, including a focus on behavioral health integration. It is followed by Reducing Care Fragmentation, a toolkit that includes a detailed discussion of the four basic elements of effective referral or transition management. The toolkit's recommendations are exemplified in a series of case studies and through links to specific tools (e.g., job descriptions and staff training curricula).

## Introduction

The complexity of modern medicine demands specialization, and high quality healthcare must ensure that patients receive care from those people and institutions best trained and equipped to provide a service, whether it be a surgical procedure, a medical evaluation, support for lifestyle change, or financial advice. As a consequence, care often involves referrals from provider to provider and transitions from one facility to another. This complex "system" of care delivery can be dangerous, frustrating, and expensive if not managed well. Reducing the potentially deleterious effects of fragmentation is a central objective of the Patient-Centered Medical Home (PCMH) Model of Care. Care coordination begins with the thoughtful identification of key service providers in the community followed by the "the deliberate organization of patient care activities between two or more participants involved in a patient's care to facilitate the appropriate delivery of health care services."[1]

Care coordination is especially challenging in safety net practices because of:
- The complexity of many patients' medical, social, and financial situations.
- The diversity of languages and cultures and the challenge of matching patients with providers that can meet their needs.
- The difficulties of obtaining specialty services for uninsured or Medicaid patients in many communities.

Many safety net practices have valuable assets that if organized well can potentially ensure effective care coordination. For example, safety net practices have a rich knowledge of their community's assets and resources, and often have staff and outreach workers that can support patients outside of the practice.

There is stronger evidence about the problems that occur when care isn't well coordinated than about the changes practices can make to prevent those problems. However, innovative practice systems, including some safety net practices, have begun to identify major changes practices can make to provide effective, efficient, and satisfying referrals and transitions. This emerging evidence and experience show that effective care coordination programs, regardless of patient population, share four common design elements: assuming accountability for care coordination, providing patient support, developing relationships and agreements with key outside providers, and establishing connectivity that ensures appropriate information transfer. These four design elements are described in detail in Reducing Care Fragmentation: A Toolkit for Care Coordination.

## 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.

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**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 also encouraged to download additional care coordination materials:

• Care Coordination Executive Summary provides a concise description of the Change Concept, its role in PCMH transformation, and key implementation activities and actions.
• Webinars provide additional examples, tips, and success stories and highlight the best-practices of SNMHI sites and other leading practices.

# Key Changes for Care Coordination

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 its organizational structure and context. The key changes for Care Coordination are:

- Link patients with community resources to facilitate referrals and respond to social service needs.
- Integrate behavioral health and specialty care into care delivery through co-location or referral protocols.
- Track and support patients when they obtain services outside the practice.
- Follow-up with patients within a few days of an emergency room visit or hospital discharge.
- Communicate test results and care plans to patients/families.

"Reducing Care Fragmentation" will focus on two of the five key changes—"track and support patients" and "follow-up with patients" —and touch upon a third—"link patients with community resources." Behavioral integration will be addressed separately in a future SNMHI Implementation Guide.



Community Health Centers of Lane County (Oregon)

## Care Management and Care Coordination: Understanding the Overlap and the Differences

In this Guide, we make an important distinction between care coordination and care management. On the one hand, we use care coordination interchangeably with referral or transition management, limiting its use to describe the essentially non-clinical but important functions such as providing information and logistical help to referred patients, ensuring timely and effective transfer of patient information, and tracking referrals and transitions to identify and potentially remedy glitches. But many patients are more severely ill, and require more intensive clinical management in addition to logistical and informational support. Care management refers to the more intensive care provided by nurses or other health workers to high-risk patients. It encompasses both referral/transition management and clinical services such as monitoring, self-management support, and medication review and adjustment. Whereas in most practice panels a large percentage of the patients will at some point be referred or hospitalized and need care coordination services, only a small subset of the most acutely or chronically ill patients will benefit from care management services. We chose to discuss the clinical aspects of care management in detail in the Organized, Evidence-Based Care Implementation Guide. The line between care coordination and care management is indistinct, but every PCMH needs to consider how it can most effectively and efficiently provide both kinds of services. A referral/transition manager or coordinator could be a receptionist or clerical person with good communication skills, while a care manager must have a clinical background.

## Implementation Guide Introduction References

1   McDonald KM, Sundaram V, Bravata DM, et al. *Closing the Quality Gap: A Critical Analysis of Quality Improvement Strategies, Volume 7—Care Coordination.* Rockville, MD: Agency for Healthcare Research and Quality, U.S. Department of Health and Human Services; 2007.

2   Jencks SF, Williams MV, Coleman EA. Rehospitalizations among patients in the Medicare fee-for-service program. *N Engl J Med.* 2009;360(14):1418-1428.

3   Tang N, Stein J, Hsia RY, Maselli JH, Gonzales R. Trends and characteristics of US emergency department visits, 1997-2007. *JAMA.* 2010;304(6):664-670.

# REDUCING CARE FRAGMENTATION

## A Toolkit for Coordinating Care

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## Consequences of Fragmentation

Care coordination, a core function of the Patient-Centered Medical Home (PCMH) Model of Care, has been defined as "the deliberate organization of patient care activities between two or more participants involved in a patient's care to facilitate the appropriate delivery of health care services."[1] Though medical care is error-prone even when care is delivered by a single provider, the opportunities for serious mishaps escalate when multiple providers are involved. Care coordination is a set of activities that is needed to minimize the dangers of fragmentation. Those activities include ensuring that all providers involved in a patient's care share important clinical information and have clear, shared expectations about their roles in care. They also include efforts to keep patients and families informed, and to optimize their experience through transitions.

American health care has many features that contribute to fragmentation of care: independent practices, limited use of electronic records, and physician payment that doesn't reward efforts to coordinate care. More recent developments, such as health plan physician networks and the separation of primary care from hospital care, have tended to erode personal relationships between primary care physicians (PCPs) and their specialist consultants and the institutions where patients get care. As a consequence, consultants frequently complain about the poor quality of information sent by referring clinicians and the inappropriateness of many referrals,[2, 3] while primary care physicians often receive no information back from consultants, and are

not notified when their patients are seen in an emergency department (ED) or admitted to the hospital.[3,4] These failures in communication and care coordination—typically referred to as fragmentation—can have devastating consequences for patients. The case of Ms. G illustrates the perils of fragmented care involving multiple clinicians who are not effectively communicating and sharing information.

## Ms. G: A Case Study in Fragmented Care

Ms. G is a 58-year-old grandmother with a 15-year history of Type 2 diabetes complicated by elevated blood pressure and recurrent episodes of major depression. Ms. G has a BMI of 37 and has struggled with weight control since young adulthood. On a recent visit to her primary care doctor for progressive fatigue and other depressive symptoms, she was found to have an HbA1c of 9.7%, a blood pressure of 190/106, and PHQ-9 score suggesting major depression despite taking an SSRI. Her PCP postponed adjusting her hypoglycemic and anti-hypertensive drug doses until her depression was under better control, and referred her to the mental health center to review and update her depression treatment. Ms. G had difficulty getting an appointment at the center, and finally saw a psychiatrist she had never seen before. At the mental health center, her blood pressure was 220/124 and Ms. G complained of headache as well as fatigue. The psychiatrist, who had received no information about Ms. G before seeing her, became alarmed about her blood pressure and headache, and sent her to the emergency department (ED). The ED physician told Ms. G that her BP medicine was inadequate and that she needed new, more powerful medications. She was given prescriptions for two new anti-hypertensive medications, but it wasn't clear to her what she was supposed to do with her current BP drugs or which doctor she should call. So she took them all.

One week later, she had a syncopal episode on arising from the commode. 911 was called and she was taken to the nearest hospital where she was found to have neurological deficits and admitted with a possible stroke. With adjustment of her medications in the hospital, her BP stabilized and the neurological deficits cleared, and she was sent home with an appointment at the mental health center to have her worsening depression managed. Once home, she became increasingly depressed, forgetful, and dysfunctional. She didn't have the energy to get herself to the mental health center. She became increasingly non-adherent with her medications and was found bedridden and hemi-paretic three weeks later by her daughter who became concerned when her phone calls went unanswered. She was re-admitted to the hospital with a completed stroke.

Her PCP was dismayed to hear about Ms. G's course from her daughter. He was unaware of any of the events that followed her last visit with him, and Ms. G's daughter was stunned and angered by his ignorance.

**The primary goal of care coordination efforts is a high-quality referral or transition. A referral occurs when a patient requires additional, specialized care by a medical consultant or community agency, and a transition is when a patient's overall care is being transferred between institutions, such as from the hospital back to primary care.**

## Why is care coordination so difficult?

- Accountability for the process is shared, which contributes to ambiguity as to who is responsible for making it work well.
- Many PCPs no longer have the personal relationships with consultants and hospitals that make communication easier.
- Finding specialists willing to see uninsured patients is difficult in many communities.
- The added time and effort required to achieve an effective referral/consultation or transition is generally not reimbursed.

A slowly growing body of literature and reports from innovative practices and care systems are beginning to clarify the elements associated with more effective care coordination and more successful referrals and transitions.[5]

The primary goal of care coordination efforts is a high-quality referral or transition. A referral occurs when a patient requires additional, specialized care by a medical consultant or community agency, and a transition is when a patient's overall care is being transferred between institutions, such as from the hospital back to primary care.

What constitutes high quality? In our view, all patient referrals and transitions should meet the six Institute of Medicine (IOM) aims of high-quality health care.[6] From this perspective, referrals and transitions should be:

- **Timely.** Patients receive needed transitions and consultative services without unnecessary delays.
- **Safe.** Referrals and transitions are planned and managed to prevent harm to patients from medical or administrative errors.
- **Effective.** Referrals and transitions are based on scientific knowledge, and executed well to maximize their benefit.
- **Patient-centered.** Referrals and transitions are responsive to patient and family needs and preferences.
- **Efficient.** Referrals and transitions are limited to those that are likely to benefit patients, and avoid unnecessary duplication of services.
- **Equitable.** The availability and quality of referrals and transitions does not vary by the personal characteristics of patients.

The IOM aims appropriately define high-quality health care from a patient's perspective. However, transitions and referrals should also meet the needs and expectations of the involved providers to be fully successful. A patient may have a very satisfying encounter with a specialist, but if the PCP fails to send relevant information or the specialist fails to communicate with the referring provider, care for that patient or others with similar problems may well suffer.

# The Care Coordination Model

Figure 1: The Care Coordination Model



**PATIENT-CENTERED MEDICAL HOME**

👁 Accountability

👪 Patient Support

🤝 Relationships & Agreements

💻 Connectivity

Community Agencies

Hospitals & ERs

Medical Specialists

- Involved providers receive the information they need when they need it
- Practice knows the status of all referrals/ transitions involving its panel
- Patients report receiving help in coordinating care

High-quality referrals & transitions for providers & patients

Source: The MacColl Center for Health Care Innovation, Group Health Cooperative

Unlike other aspects of medical care, there has been relatively little rigorous research to direct efforts to improve care coordination. However, many innovative health care organizations have recognized the dangers of poorly coordinated care and have implemented interventions to improve it. The recommendations in this toolkit derive from the scientific literature, when available, and the best ideas from the field. We have assembled the best evidence in a Care Coordination Model (Figure 1). The goal of care coordination is high-quality referrals and transitions that meet the six IOM aims for high-quality health care, and ensure that all involved providers, institutions, and patients have the information and resources they need to optimize a patient's care. The Model looks at care coordination from the perspective of a PCMH. It considers the major external providers and organizations with which a PCMH must interact—medical specialists, community service agencies, and hospital and emergency facilities—and summarizes the elements that appear to contribute to successful referrals and transitions. Those elements include:

- Assuming accountability.
- Providing patient support.
- Building relationships and agreements among providers (including community agencies) that lead to shared expectations for communication and care.
- Developing connectivity via electronic or other information pathways that encourages timely and effective information flow between providers (including community agencies).

Ms. H illustrates what care would look like if it were coordinated in accord with the Care Coordination Model.

## Ms. H: A Case Study in Coordinated Care

Ms. H, Ms. G's sister, is a 55-year-old grandmother with a 12-year history of Type 2 diabetes complicated by elevated blood pressure and recurrent episodes of major depression. Ms. H has a BMI of 36 and has struggled with weight control since young adulthood.

At a check-back visit, she was found to have an HbA1c of 8.9%, a blood pressure of 148/88, and PHQ-9 score suggesting minor depression. Her PCP postponed adjusting her hypoglycemic and anti-hypertensive drug doses until her depression was under better control, and referred her to the mental health center to review and update her depression treatment. Her doctor had previously met with the clinical director of the mental health center. The director suggested that one particular psychiatrist, Dr. P, work with referrals from her practice, so Dr. P was shown how to log in to and use the practice's Web-based e-referral system. Her doctor recommended that Ms. H not leave her office without making an appointment with Dr. P. The receptionist/referral coordinator worked with Ms. H and the appointment clerk at the mental health center to set up an appointment that week. Ms. H missed her appointment because one of her grandchildren was ill. The e-referral system noted her missed appointment, and the referral coordinator called Ms. H to set up another appointment. When Ms. H saw Dr. P, he had her clinical information in front of him. He adjusted her depression medication, but also found that her blood pressure was elevated. Ms. H also complained of headache and fatigue. Dr. P became alarmed about her blood pressure and headache, and arranged for her to be seen that afternoon by her PCP, who adjusted her anti-hypertensive medications. The receptionist/referral coordinator suggested that Ms. H have her BP checked by the EMTs at the neighborhood fire station every other day, which she did. Ms. H slowly began to feel less depressed and her BP slowly came down to target levels with one more medication adjustment.

## Accountability

Since care coordination, by definition, involves multiple providers and sources of services, who among those providers is accountable for ensuring that "the deliberate organization of patient care activities" takes place? Obviously, all providers must collaborate, but establishing the conditions and infrastructure for ensuring quality referrals and transitions is a core responsibility of the PCMH. All primary care offices currently devote some time and energy to managing referrals. Back offices often contain stacks of charts with "yellow sticky notes" indicating the need for a referral or additional information requested by a consultant or health insurance company. In contrast, practices that assume responsibility and make an effort to coordinate care try to develop the relationships, infrastructure, and processes that support successful referrals and transitions. Referrals are more likely to be successful if referring providers and consultants understand each other's expectations and preferences, and referring practices have the staff and information infrastructure to help patients and their information get where they need to go.

The accountability for ensuring quality transitions rests primarily with the discharging institution and providers (e.g., hospitals and hospitalists, EDs, and emergency physicians). But transitions may also go in the opposite direction as when the PCMH arranges a hospitalization, or one of their patients needs nursing home care. Because of the critical importance of reducing ED and hospital care, PCMHs must try to work with area hospitals and EDs to increase the likelihood that they will receive timely, useful information when their patients are admitted and discharged. Hospitals vary considerably in their efforts to identify and contact PCPs, but many have responded positively when asked to share admission and discharge information.

An important component of assuming accountability is having the ability to track referrals and transitions to ensure their successful completion, sometimes called "closing the loop." Referral tracking is made easier if there is an information system that records important landmarks in the referral process (e.g., referral appointment made, patient information received, appointment completed, consultation note returned). Tracking referrals means developing a paper or electronic database that records all referrals made and key landmarks toward their successful completion. E-referral systems generally facilitate referral tracking. Referral tracking is a "Must Pass" item for NCQA PCMH Recognition. To track transitions, the PCMH will have to regularly receive timely information about its patients' admissions and discharges from hospitals and other institutions.



## Patient Support

Referrals and transitions challenge patients and families. They raise questions that need to be answered, generate appointments that need to be made, and produce logistical challenges and anxiety that need to be addressed. Practices that dedicate staff time to meeting these patient needs are more likely to have successful referrals and transitions. These care coordination patient support functions are sometimes confused or conflated with clinical functions such as care management, because in some practices a nurse or other care manager provides support functions in addition to her clinical care management responsibilities (i.e., clinical assessment and follow-up, self-management support, or medication management). While care managers generally focus on a small, very sick subset of a practice population, almost, if not all, referrals and transitions within the PCMH would benefit from some degree of active coordination. We urge that patient support for care coordination be considered separately from clinical care management, although care managers do and should provide care coordination support for their high-risk patient panels. In many practices, patient support is provided by a referral coordinator who identifies and attempts to resolve any logistical or financial barriers to completing a referral, helps get timely appointments, ensures the transfer of clinical information, tracks progress, and assists patients encountering difficulties.

**A critical element of effective care coordination is making certain that referring and consulting providers agree on the purpose and importance of the referral, and the roles that each will play in providing care.**

## Relationships and Agreements

A critical element of effective care coordination is making certain that referring and consulting providers agree on the purpose and importance of the referral, and the roles that each will play in providing care. As close, personal relationships between PCPs and specialists or hospital staff have become less and less common,[6] PCMHs would be wise to initiate conversations with their key specialist consultants or hospitals to discuss each other's preferences and expectations. The sorts of issues and expectations that might be considered in such conversations include:

- Types of patients referred. Many specialists have developed criteria for the patients they prefer to see.
- Information provided at time of referral.
- Notification of the PCMH of ED visits and hospitalizations.
- Testing to be completed prior to referral. If PCPs complete a specialist's preferred laboratory testing prior to the referral, it increases the value of the consultation and reduces possible duplicate testing.
- Availability for "curbside consults."
- Consultation report content and timeliness.
- Post-consultation care expectations need discussion to prevent unhappiness among providers because expectations weren't met (e.g., specialist assumes care when PCP only wanted advice, or specialist returns patient and advice when PCP wanted to transfer care).
- Post-ED or hospitalization care expectations.
- Specialist-to-specialist referrals. Many PCPs do not want specialists to refer their patients to other specialists without first consulting with the PCP.

These conversations can result in agreements that can be codified in writing or programmed into electronic referral systems. Such agreements seem to be critical to reducing unnecessary referrals, avoiding duplicated assessments, and ensuring optimal post-referral or post-hospital care.

## Connectivity

A critical predictor of a successful referral or transition is ensuring that the involved providers have the information they need to optimize care. On the one hand, PCPs need to be sure that consultants know the reason for a referral, and have the necessary information to provide optimal service. On the other hand, consultants must provide information back to the PCP that addresses her questions and concerns. And providers should keep patients informed and confident that all the providers involved are communicating with each other. The presence of an electronic referral (e-referral) system can help ensure that this critical information flow occurs in a timely way. E-referral systems can incorporate agreed upon guidelines for referrals and transitions that prevent unnecessary ones and ensure that consultants and PCPs get the information they need. These goals can also be accomplished with pencil and paper approaches to structuring and standardizing referral requests and consultation notes.

# Elements of Effective Care Coordination

Practices wanting to improve the coordination of their care should consider making changes to practice systems and processes consistent with the four elements described above—accountability, patient support, relationships and agreements, and connectivity. These four represent high-level program design elements to guide the design and implementation of effective referral and transition management activities. The following table identifies the major changes under each design element, the specific activities involved in making the major change, and related tools and resources that might be of help, which are included as PDF's or links in this toolkit. These are described more fully in the text that follows the table.

Table 2: Elements of Effective Care Coordination, Tools and Resources

| Design Element | Major Changes | Activities | Tools and Resources |
|---|---|---|---|
| Accountability | 1. Decide as a primary care clinic to improve care coordination. | Develop a quality improvement (QI) plan to implement changes and measure progress. | National Committee for Quality Assurance (NCQA). Care Coordination Measures. |
| | | | Care Coordination Questions from Validated Instruments. |
| | 2. Develop a tracking system. | Design the clinic's information infrastructure to internally track and manage referrals/transitions including specialist consults, hospitalizations, ED visits, and community agency referrals. | Referral Tracking Guide. |
| Patient Support | 3. Organize a practice team to support patients and families. | Delegate/hire and train staff to coordinate referrals and transitions of care, and train them in patient-centered communication, such as motivational interviewing or problem solving. | Referral Coordinator job description. |
| | | | Case Study of Wright Center. |
| | | Assess patient's clinical, insurance, and logistical needs. | Referral Coordinator Curriculum. |
| | | Identify patients with barriers to referrals/transitions and help patients address them. | The Care Transitions Program Patient Activation Assessment Form. |
| | | Provide follow-up post referral or transition. | |

| Design Element | Major Changes | Activities | Tools and Resources |
|---|---|---|---|
| **Relationships & Agreements** | 4. Identify, develop, and maintain relationships with key specialist groups, hospitals, and community agencies. | Complete internal needs assessment to identify key specialist groups and community agencies with which to partner. | Referral Coordinator job descriptions. |
| | 5. Develop agreements with these key groups, hospitals, and agencies. | Initiate conversations with key consultants and community resources. | Case Study of Family Care Network. |
| | | | Patient-Centered Primary Care Collaborative: Colorado Primary Care–Specialty Care Compact. |
| | | Develop verbal or written agreements that include guidelines and expectations for referral and transition processes. | Federal Expert Work Group on Pediatric Subspecialty Capacity Promising Approaches for Strengthening the Interface between Primary and Specialty Pediatric Care. (Maternal and Child Health Policy Research Center American Academy of Pediatrics and the Maternal and Child Health Bureau Department of Health and Human Services, March 2006.)<br><br>Carrier E, Dowling MK, Pham HH. Care coordination agreements, facilitators and lessons learned. *Am J Manag Care.* 2012;18:e398-404. |
| | | Standardize the information in referral requests and consultation reports to ensure it meets agreed upon expectations. | Berta W, Barnsley J, Bloom J, et al. Enhancing continuity of information: essential components of a referral document. *Can Fam Physician.* 2008;54(10):1432-1433, 1433 e1431-1436. |
| | | | Berta W, Barnsley J, Bloom J, et al. Enhancing continuity of information: essential components of consultation reports. *Can Fam Physician.* 2009;55(6):624-625 e621-625. |
| | | | Reichman M. Optimizing referrals & consults with a standardized process. *Fam Pract Manag.* 2007;14(10):38-42. |

| Design Element | Major Changes | Activities | Tools and Resources |
|---|---|---|---|
| **Connectivity** | 6. Develop and implement an information transfer system. | Investigate the potential of shared EHR or web-based e-referral systems; if not available, set up another standardized information flow process. | Case Studies of Humboldt County, San Francisco, and Oklahoma e-Referral systems. |
| | | | Horner K, Wagner E, Tufano J. Electronic Consultations Between Primary and Specialty Care Clinicians: Early Insights. The Commonwealth Fund. October 2011. |
| | | | Metzger J, Zywiak W. Bridging the Care Gap: Using Web Technology for Patient Referrals: California HealthCare Foundation; September 2008. |
| | | | O'Malley AS, Grossman JM, Cohen GR, Kemper NM, Pham HH. Are electronic medical records helpful for care coordination? *J Gen Internal Med.* 2009 [Epub], Journal print copy March 2010. |

## Accountability

**Major Change: Decide as a primary care clinic to improve care coordination.** This decision is not one that many primary care practices have chosen to make. Improving care coordination involves effort and expense—redeploying and training staff in new roles, reaching out to other key providers and service agencies, and improving information flow between the practice and other providers. This effort is of course not currently rewarded by most payment schemes. Also, isn't care coordination every provider's responsibility—PCP, specialist, ED, hospital? Why should the onus for ensuring smooth patient transitions fall on primary care? There are a number of reasons.

- Fragmented care can be dangerous when associated with delays and other mishaps in care.
- Fragmented care is a major irritant to patients and families.

- Fragmented care is a major source of duplicated and unnecessary service.
- Fragmented care is a major headache for primary care practitioners having to deal with angry patients and family members who can't understand why their doctor didn't know they were in the hospital, or didn't know what the specialist said.
- High-quality care coordination is an expectation of all PCMH models and related payment reforms, and may play a crucial role in reducing unnecessary emergency department and hospital use.

Once the decision is made to try to improve care coordination, the next step is to develop a QI plan. The plan should begin with clear goals, (e.g., ensure 100% return of consultation reports following specialist referral, or contact all patients discharged from the hospital within three days following discharge) and consider measures that will signal progress toward meeting the goals. To help practices choose measures that have a track record, we include in the Tools and Resources section: #1 NCQA Measures, which are proposed care coordination indicators for medical home recognition and #2 Care Coordination Questions from Validated Instruments, a selection of questions from major patient experience questionnaires.

**Major Change: Develop a referral/transition tracking system.** Since care coordination concerns activities outside the practice, the practice's capacity to improve coordination depends upon its awareness of those activities. Did Ms. G keep her appointment with the psychiatrist? Has the practice received the psychiatrist's report? Which patients were seen in the ED last week? Have they been contacted by the practice nurse? Information of this sort enables the practice to identify potential problems and remedy them. A tracking system begins by recording basic information about each referral or transition, and then developing strategies for assessing and recording whether key milestones (e.g., appointment made, consultant received information, consultant appointment kept, report received by primary care) were reached. Similarly, practices should make efforts to routinely receive information about patients admitted to the hospital or seen in the ED. Many practices, rather than relying on hospitalists or ED physicians to contact them, have the hospital regularly send them daily admission/discharge reports. Hospitals and EDs complain that patients can't tell them their PCP's name when asked. To remedy this, some practices have given all their patients cards with provider and practice information to carry in their wallets. The tracking system helps the practice follow these patients, collaborate with hospital-based care managers, and coordinate management with the hospital or ED. An effective referral/transition tracking system can be pencil and paper, a function of an e-referral system or

EHRs, or developed on readily available software such as Microsoft® Excel or Access. The American College of Physicians Center for Practice Improvement & Innovation has a practical guide to tracking referrals on its website: #3 under Tools and Resources, Referral Tracking Guide.
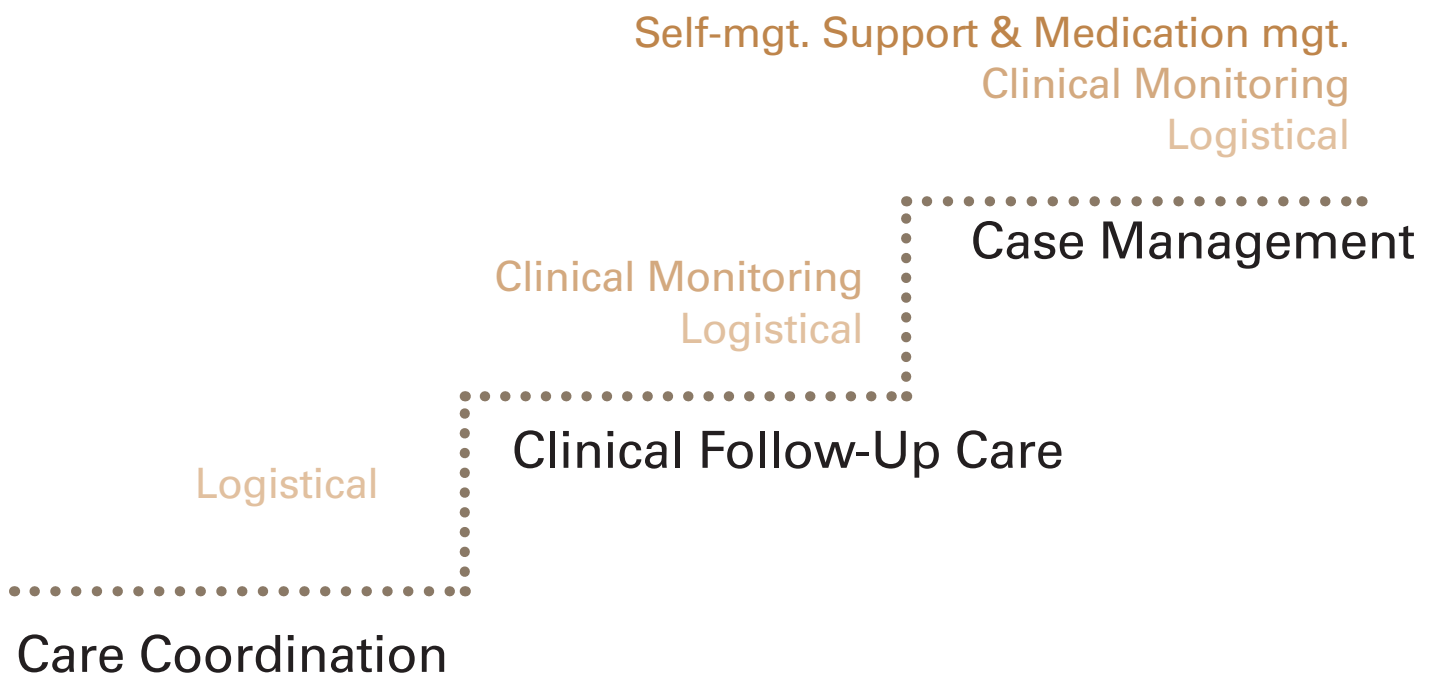
## Patient Support

In the PCMH, the aim of care coordination is to keep the patient at the center of care during the referral or transition. The referral coordinator has several important roles: Supporting patients and their families in understanding the need for the referral, ensuring seamless referral and transition processes from the patient's perspective, and systematically following up to ensure that the referral or transition is completed and achieves its goals. This section is meant to describe the patient support functions of care coordination within PCMHs. We focus on referral and transition management tasks and distinguish them from clinical roles, including clinical follow up and case management, while appreciating that referral management may be conducted by staff that is also performing these more clinical roles.

**Major Change: Organize the practice team to support patients and families during referrals and transitions.** The care coordination patient support tasks vary with the needs of the patients served, and those providing patient support need skills and training to meet the needs of those patient populations. The percentage of patients in a practice needing logistical support for referrals or transitions will be considerably larger than those requiring clinical care management. The stepped patient support model below describes the different roles that include care coordination responsibilities. However, most clinical follow-up or care management programs focus on a small, higher risk subset of a practice's panel; having a care management program doesn't address the coordination needs of less ill patients.

Figure 3: Stepped Patient Support

**Self-mgt. Support & Medication mgt.**
**Clinical Monitoring**
**Logistical**

## Case Management

**Clinical Monitoring**
**Logistical**

## Clinical Follow-Up Care

**Logistical**

## Care Coordination

Although some primary care practices can successfully distribute the tasks of care coordination among team members, most benefit from designating a specific person to handle the patient support, logistical, and information management issues associated with referrals and care transitions. A sample job description for that role is included in the Tools and Resources Section: #4 Referral Coordinator Job Description. The Wright Center, described in the case study section, employs a "referral queen" to improve the quality of their referrals. Training for the referral coordinator should address the competencies described in a proposed curriculum included in the Tools and Resources Section: #4 Referral Coordinator Curriculum.

In practices using an e-referral system, the referral coordinator generally uses the system for many of the functions described below: transmitting patient information, making appointments, and tracking the referral process. Once a referral is initiated by the PCP, the referral coordinator helps assemble the necessary information; including the patient's clinical, demographic, and insurance details, in accord with

recommendations or protocols from specialists. This may include ensuring the availability of lab results recommended for a specific referral. She will also help obtain prior authorization if necessary. The referral coordinator helps patients make appointments and identifies patient barriers such as language or lack of transportation, and either handles these logistical needs herself or connects patients with other staff or local services. By tracking all referrals and care transitions, referral coordinators can identify problems and intervene with patients who failed to show up for a specialist appointment or with specialists' offices if a consultative report hasn't yet been received.

Transitions, such as being discharged from the hospital, can be dangerous if patients are not adequately prepared, supported, and clinically managed. We will discuss transitions from an emergency department or hospital in more detail later in this guide. The Care Transitions Program[SM] website includes valuable information about the support and management of patients following hospital discharge, including a useful brief assessment that is available in the Tools and Resources section: #6 Patient Activation Assessment.

# Relationships and Agreements

**Major Change: Identify, develop, and maintain relationships with key specialist groups, hospitals, and community agencies.** Identify key outside service providers by focusing on the providers and organizations referred to most frequently. Begin by building or enhancing relationships with these providers. As described in the case study section, Family Care Network initiated conversations with their local cardiology specialty group because it had experienced miscommunications in the past. The conversations resulted in an agreement that substantially improved the quality of referrals. In addition to key medical specialist groups, hospitals, and emergency departments, PCMHs should also consider building relationships with other providers of key services such as:

- Behavioral health and substance abuse specialists.
- Ancillary services (e.g., social work, nutrition, physical and occupational therapy).
- Behavior change support services (e.g., self-management programs, smoking cessation, exercise programs, weight loss).
- Peer support opportunities for patients.

Organizations, such as Genesys Health System, described in the case study section, employ health navigators as members of the primary care team to support patients and develop these community service relationships. The identification of community resources may be aided by asking patient focus groups or consumer advisors the names of agencies and organizations valued by the community.

**Major Change: Develop agreements with these key groups and agencies.** It may take time and several conversations to build relationships and develop a service agreement. For this reason, primary care practices should consider focusing on one or two relationships at a time. The process begins with a conversation initiated by the PCMH. Since the goal of the initial discussion and those that follow is to find common ground, the following principles should guide the interchange:

- Find common goals and work on them.
- Assume all providers have the best intent for the patient's care.
- Avoid confrontation.
- Focus on the system and not the people.

The final bullet is particularly important since changes to the system (e.g., the structure and flow of clinical information) are generally more effective than urging a colleague to behave better.

The discussion might begin by considering important categories of patients, such as patients who need an urgent referral, need follow-up care after hospitalization, need a procedure, or need a consultation for an ongoing problem. For each patient type, both PCP and specialist should state and discuss her expectations. These expectations should cover:

- Which patients are appropriate to refer.
- Information the consultant needs before the referral (e.g., records and test results that should be available prior to the consultation visit).
- Information the PCP wants following the consultation.
- Roles of the PCP and specialist post-consultation.
- Other processes, including the PCP not wanting the specialist to refer the patient to another specialist.
- If applicable, the use of an e-referral system.

Some organizations have found it useful to put in writing the shared expectations that result from such discussions, but the conversations and resulting personal relationship are ultimately what is critical. The Tools and Resources section contains examples of primary care/specialty care agreements: #7 Colorado Primary Care–Specialty Care Compact developed for the Colorado Patient Centered Primary Care Collaborative, and #8 Promising Approaches for Strengthening the Interface between Primary and Specialty Pediatric Care, a report developed by the Federal Expert Workgroup on Pediatric Subspecialty Capacity. A second way in which shared expectations can be systematized is through an electronic referral system. Good e-referral systems embed referral guidelines and structure the information transmitted to ensure consistency with prior agreements. For example, such systems will not transmit a referral request unless it contains the agreed upon information.

For the PCMH to play a significant role in the transition of its patients from the hospital or ED back into the community, it needs to have analogous discussions with leaders of key hospitals and other emergency facilities in its community. At the very least, the PCMH should make clear its interest in coordinating care and preventing readmissions, and the importance of being notified when patients are admitted and discharged. Recent experience with and examples of care coordination agreements are described in #9 Care coordination agreements: barriers, facilitators, and lessons learned.

## Connectivity

**Major Change: Develop and implement an information transfer system.** High-quality referrals and transitions depend upon all providers in the chain having the information they need when they need it. The requisite information of course includes essential data about patients and their treatment plans. The essential information should also include the test results needed by consulting specialists to complete their consultation. Referring patients without test results considered to be necessary for an adequate consultation is a common reason that referrals are refused, duplicate testing is done, or consultations take multiple visits. Which tests are necessary may well vary among physicians in a given specialty, so they need to be discussed as part of the agreement process.

In addition to access to critical patient information, all providers need to know what others in the chain expect of them. What is my role? What question(s) or issues(s) am I to address? What roles are others playing? Many problems in care coordination stem from failure to address these issues. General expectations can be discussed while reaching agreements, but expectations often need to be revisited for each patient. For example, specialists need to know the PCP's wishes for post-referral care arrangements to avoid serious misunderstandings that may confuse or even harm patients.

There are four key elements of an effective information transfer system, whether electronic (e-referral system, shared EHRs, or health information exchange) or pencil and paper:
- Established agreements about information needs and expectations are integrated in the system.
- The system helps ensure that requisite information is transmitted to the correct destination(s).
- Key milestones in the referral/consultation process can be tracked.
- Referring providers and consultants can efficiently communicate with each other.

Structured referral requests and consultation notes increase the likelihood that the desired information will be there. Tools #10–13 in the Tools and Resources section comprise three articles that illustrate the changes to referral requests and consultation notes that increase the quality and utility of a referral. While many of these key elements can be met with paper forms, e-referral systems offer many advantages because both referrers and consultants use it. Most can be programmed to include referral criteria for various clinical problems and specialties. Some organizations use these criteria to prevent unnecessary referrals as well as to ensure that the necessary information is available at the time of the referral. E-referral systems have sometimes been used for electronic or virtual consultations, an exciting development described in #13: Electronic Consultations Between Primary and Specialty Care Clinicians: Early Insights.

Some e-referral systems won't transmit a referral request until the information is complete and properly formatted. Because primary care and specialists share the same software, e-referral systems are being used to increase communication among them, including efforts to implement electronic or virtual consultations. See case studies for Humboldt County, San Francisco General e-Referral systems, and Oklahoma e-Consultation system in the Case Studies section. The California Health Care Foundation has produced a valuable report examining the functioning of eight available e-referral systems: #15 in the Tools and Resources section, Bridging the Gap: Using Web Technology for Patient Referrals.

Many policymakers seem to assume that greater diffusion of EHR systems will improve care coordination. O'Malley and colleagues compared these expectations with the real experience of practitioners with EHR systems in place. Their paper is in the Tools and Resources Section: #14 Are electronic medical records helpful for care coordination? Experiences of physician practices highlight the capabilities of EHRs to improve care coordination as well as their limitations. At best, EHRs should make it easy to assemble key information for a referral, help practices track and follow up on referral recommendation, and coordinate care within the practice. However, their impact on care coordination will be modest until data standardization and health information exchanges facilitate inter-practice data exchange. O'Malley and colleagues also note that most EHRs don't support multi-provider clinical decision support even among providers sharing the same EHR, and underscores the need to develop infrastructure and reimbursement that encourages the development and maintenance of shared care plans.

# Care Transitions

Health reform and economic considerations have placed a new emphasis on the value of primary care and new expectations for primary care providers and practices. Many payers, public and private, are using pay for performance and other types of incentive programs to reward high-quality, comprehensive primary care that keeps patients out of EDs and hospitals. Accountable Care Organizations (ACOs) ask providers, in partnership with hospitals and other facilities, to take on risk for patient health outcomes and healthcare costs. Safety net practices will increasingly be asked to demonstrate their value to payers and to communities. Primary care practices that can demonstrate cost savings by reducing avoidable ED visits and hospitalizations will be eligible for enhanced payments, shared savings, and other types of financial incentives.

There are two major goals for medical homes with respect to EDs and hospitals:
1. Collaborate to ensure safe, effective, and efficient transitions back to primary care for patients discharged from EDs or hospitals.
2. Reduce avoidable ED visits and hospitalizations.



Community Health Centers of Lane County (Oregon)

## Coordinating Emergency Department Use

Hospital ED use has increased dramatically in recent years, increasing 36% from 1996 to 2006.[8] At least one-third of all ED visits are felt to be "avoidable;" that is, they are non-urgent or for conditions that could be treated in outpatient primary care settings.[9] The increase in avoidable ED use is particularly concerning given the fact that the number of EDs is declining across the U.S., leading to increased waits and delays for patients who truly need emergency care.[10] Studies have demonstrated that patients with a medical home are less likely to go to the emergency department for their health care.[11-13] Nonetheless, the majority of individuals considered to be frequent users of ED care also have a primary care provider.[14,15] This reinforces the need for patient education and effective care coordination.

The four elements of our Care Coordination Model apply to dealing with ED use, as well as referrals to specialists or community agencies. Primary care practices that want to effectively manage their patients after an ED visit must assume accountability for a good transition, and not just complain about the ED. They need to try to develop a working relationship with key EDs that ensures that they are notified when their patients seek emergency care, and that they collaborate on the follow up plan. They need to provide clinical or logistical patient support to prevent lapses or discontinuities in care. And, they need to make certain that they have some form of connectivity with key EDs that enables timely patient information to be transmitted in either direction.
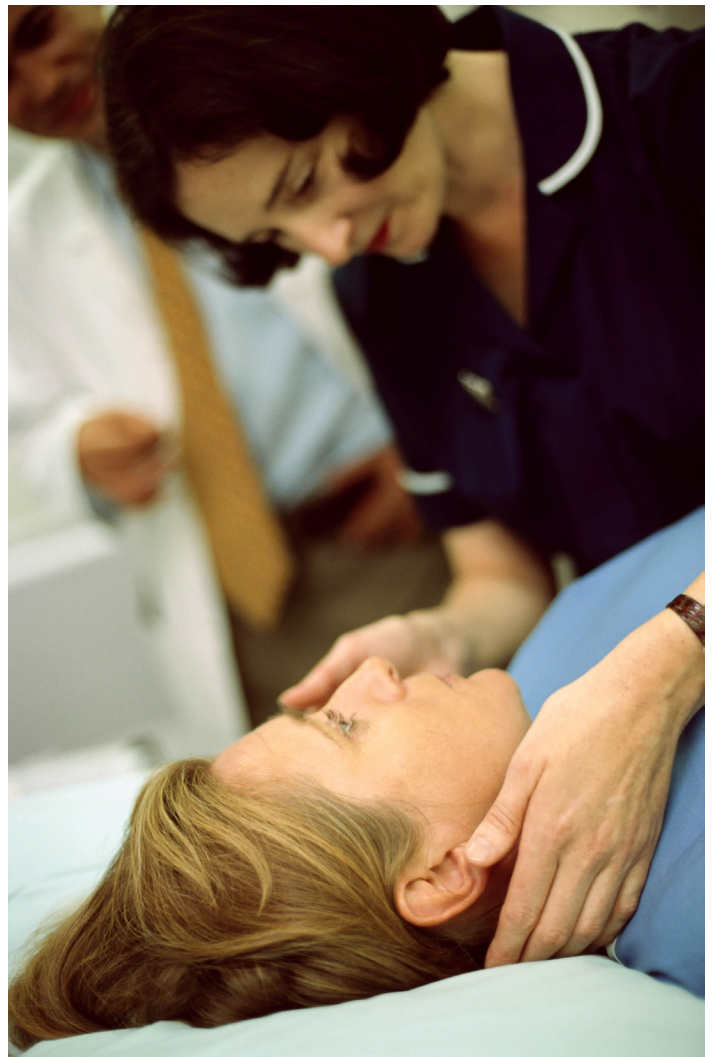
To ensure good transitions in care, PCMH practices must have accurate data on the utilization of their patients to plan and organize patient care within their practice. Most primary care practices will need help from local hospitals to get meaningful data on ED and hospital utilization. It begins with developing and maintaining relationships with EDs and hospitals. Earlier sections of this guide provide tips on how to build such relationships. Many hospitals have welcomed collaboration with safety net practices in efforts to prevent repeat ED use or hospitalization by uninsured, and in some states, Medicaid patients. The goal is to obtain information on clinic patients being seen in the ED as soon after the encounter as possible. Practices should request that hospitals and other facilitates send them daily admission/discharge reports, and establish a tracking system within their practice to review and follow up on these reports.

In some cases, clinics have actually stationed their staff in the ED to help identify their patients, monitor utilization, and ensure appropriate follow-up in the PCMH. Clinics need to be sure that their patients identify their medical home to ED staff. Many clinics provide patients with cards that identify the patient's clinic, provider, and relevant contact information. In the absence of reliable data from EDs, it is important to routinely query patients about the care they receive outside of the practice; for example, asking if patients have been seen in the ED or other urgent care facility since their last primary care appointment. A tracking system helps the practice follow patients, collaborate with hospital-based care managers, and coordinate management with the hospital or ED. The American College of Physicians Center for Practice Improvement & Innovation has a practical guide to tracking referrals on its website: #3 in Tools and Resources, Referral Tracking Guide.

Frequent ED visits mean disjointed, discontinuous care and, if common among a practice's clientele, signals that the practice is not meeting patient needs. These breaks in continuity may well compromise patient experience, quality of care, and patient health outcomes[16,17] and make clinic care more complex and less rewarding. Patients who frequently use the ED for routine care are less likely to receive comprehensive primary care and are unlikely to receive adequate preventive health care, self-management support, or follow-up. Their pattern of care drives up the total cost of care while causing lost revenue for primary care practices. Finally, avoidable ED use limits access for patients with true emergencies.

# Steps to Ensuring Safe Transitions and Reducing Avoidable ED Use

**1. The first step in ensuring safe transitions and reducing avoidable ED use is to assess and understand your patients' patterns of use.**

Data on ED use supports interventions to reduce subsequent utilization. It also provides information of great interest to insurers and other payers interested in reducing ED costs. While real-time data is critical, it is also useful to request claims data from your practice's primary payers. While claims data is not highly actionable because of time lags, it can provide: valuable information on specific patients' use patterns and a list of patients who may require education on appropriate ED use or intensive outreach and monitoring. Such data enables the clinic to coordinate the follow-up care of recent ED visitors, and identify and query frequent ED users in an effort to identify potential interventions. For example, problems in accessing primary care have been associated with increased ED use.[18,19] Frequent ED visits by patients without a designated PCP may indicate a need to empanel them.

**2. The second step is to establish workflows for reviewing and acting on facility data.**

The practice needs to assign staff responsibility for reviewing ED visit data, set an expectation for how often this data is reviewed, and identify who will follow-up with patients in need of care coordination or outreach. In many PCMH practices, care teams are expected to make contact with a patient within three days of an ED visit or hospitalization. Early follow-up is essential for very sick patients, but also serves to reinforce the relationship with the clinic and its commitment even for those with minor problems. It also provides an opportunity to explore reasons for ED use.

**3. The third step is to intervene to ensure safe transitions and reduce avoidable ED visits through patient education, enhanced access, and more effective care coordination.**

In thinking about interventions to reduce ED use, it is useful to consider different subgroups of patients:

Healthy Patients with Acute Needs. Healthy patients with acute needs (e.g., UTI or minor injury) should respond best to patient education and enhanced access to care. These patients may be unaware that their medical home offers same-day appointments or evening hours, or that a nurse line is available to help answer questions. Patient education can be conducted in person or via information handed out at patient orientation or in exam rooms.

Chronically Ill Patients Seeking Care. Patient-centered medical homes are in a unique position to substantially affect and improve the health of this population and reduce avoidable ED visits. Primary care-based care coordination and clinical care management are essential for chronically-ill populations. A chronically ill patient who seeks emergency care for her condition should be a target for more intensive support.

## Patient Education

There are two types of recommended education: immediate and continuing.

**Immediate Education in the ED.** Immediate education in the ED can affect use even on that day. For example, partnering with a hospital to have a nurse, health educator, or promatora at the ED can divert patients presenting with non-urgent issues directly to a primary care practice. Children's Hospital in Columbus, OH, was able to reduce non-urgent ED use among children in families qualifying for Medicaid by 14.5% by educating families about the importance of primary care. Education was conducted in the emergency department by a health professional who continued to work with assigned families in eliminating barriers to appropriate utilization of a primary care provider for up to three months after the initial ED visit.[20]

**Continuing Education in the PCMH.** ED use may be reduced by teaching patients how to access and use their clinic, as well as providing information about which conditions can and should be treated in primary care and when symptoms or injuries require urgent care.

## Access Strategies

Access to primary care is critical in limiting avoidable ED visits. For example, patients in practices with 12 or more evening hours a week used the ED 20% less than patients in practices without evening hours.[21] Furthermore, patients who had Internet-based, interactive virtual visits with clinicians to diagnose and treat routine childhood symptoms used the ED 22% less than patients who did not have access to virtual services.[22] For other strategies on enhancing access, refer to the SNMHI Enhanced Access Implementation Guide.

## Care Coordination and Care Management Strategies

Patient education and better access may enable PCMHs to prevent ED visits. But once an ED visit has occurred, care must be effectively transitioned back to the medical home to optimize outcomes and prevent further ED visits. At the very least, the PCMH needs timely information about the problem the patient sought care for, and the treatment and follow-up plan. A pre-existing relationship with local EDs should increase the likelihood of the PCMH receiving a copy of the ED record. Contacting the patient shortly after the visit provides another important perspective on the episode. For patients with relatively minor problems, contact by the PCMH re-establishes the primary care relationship, and ensures appropriate follow-up. For sicker patients, active care coordination and effective care management can improve clinical, financial, and satisfaction outcomes if targeted to appropriate patients. Care management generally refers to more intensive follow-up, medication management, and self-management support provided by a nurse, or sometimes a social worker or other health professional working closely with the primary care practice. The distinctions between care coordination and care management have been described earlier in this toolkit.

### Frequent ED Users

Most research studies define a frequent user as a person having four or more ED visits per year; frequent users account for only 4.5% to 8% of all ED patients, but generate about a quarter of all ED visits.[23] Most frequent ED users are white and insured; but many of the insured are Medicaid beneficiaries or recipients of some type of public insurance. Usually, these patients are sicker, and have a greater chance of being hospitalized than occasional users. Some communities have begun to track frequent users and provide interventions to support them ("hot-spotting"). Patients who visit the ED more than 20 times per year often have unmet care needs, such as mental health or substance abuse. Research suggests that case management is associated with reductions in psychosocial problems and ED use among ED frequent-utilizers.[2]

Table 4: Other Examples of Immediate Education

| Health Center | Description |
|---|---|
| East Boston Neighborhood Health Center (MA) | The health center is successfully partnering with its on-site ED to offer real-time care management for newly diagnosed diabetes patients presenting in the ED. Previously, upon diagnosis, a patient was referred to the health center's care management department for follow-up visits, education, and management at a later date. However, by the time patients arrived at the health center for their follow-up visits, they were not in good control. To address this care gap, the health center's care management team started an on-call service for the ED. For any newly diagnosed diabetic, the ED now calls a nurse from the health center's care management team to immediately meet with the patient, teach them how to use a glucometer, conduct nutritional counseling, check on medication orders, and make sure all the proper orders are placed.<br><br>The result of this process change is that more patients arrive at their follow-up appointment with an acceptable glucose level, able to test their own glucose, and have a basic understanding of their diagnosis. Enhanced education, self-management, and improved health results in fewer ED readmissions. |
| Baltimore Medical System (MD) | The health center works with a local hospital to link eligible patients—specifically Medicaid and uninsured patients with two or more emergency department visits in the previous year—to a primary care provider at a health center.<br>• The health center stations community health workers at the emergency department from 8 am–11 pm weekdays and some weekend hours.<br>• Community health workers meet with eligible patients after triage by emergency department staff to discuss the benefits and services available at the health center.<br>• Community health workers schedule follow-up appointments for patients who would like to receive care at the health center.<br>• The health center uses charitable contributions from corporations to pay for the patient's first health center visit and first prescriptions.<br>• At their first health center appointments, patients are connected to primary care providers who, in coordination with case managers, oversee patients' future needs. |
| Brockton Neighborhood Health Center (MA) | The health center works with two local hospitals to develop treatment plans for health center patients identified as having 12 or more emergency department visits within a year.<br>• Hospital staff notify the health center if an identified patient presents at the emergency department.<br>• Health center and hospital staff work together to develop a discharge plan for the patient, including scheduling an appointment for the patient at the health center, if necessary.<br>• During monthly meeting, health center and hospital staff discuss why targeted patients use the emergency department and how care plans can be improved to prevent future use. |

Source: GAO. Hospital Emergency Departments: Health Center Strategies That May Help Reduce Their Use. GAO-11-414R. Washington, District of Columbia: Government Accountability Office; April 11, 2011.

# Transitions from the Hospital

The recent emphasis on reducing hospital re-admissions has often dominated conversations about care coordination. The emphasis is not misplaced given that one-half of Medicare beneficiaries readmitted within 30 days did not see a physician after discharge.[18] Further evidence indicates that the earlier patients see a physician following discharge the lower their readmission rates.[26] Contributing to this problem is the sorry state of communication between hospitals and hospitalists and community-based providers. A literature review by Kripalani and colleagues found that:

- Only 3% of PCPs reported participating in discussions about the discharge of one of their patients.
- Only one in five PCPs reported always being notified about their patient's discharge.
- Less than one in three PCPs reported receiving discharge summaries within two weeks of discharge.

These data strongly suggest that PCMHs must take steps to ensure the effective post-discharge care of their recently hospitalized patients. The steps are identical to those just described for ED visits: assess hospital use, educate hospitalized patients, and ensure that post-discharge care is coordinated and, if necessary, care managed. Because Medicare will no longer pay for certain readmissions, hospitals are taking action. This generally involves hospital-based care management of recently discharged patients. If coordinated with the patient's medical home, these interventions could be helpful to patients and PCPs.

## Assess Hospital Use

Safe, well-coordinated post-hospital care depends upon the PCMH's knowledge of their patients' hospitalizations. The evidence indicates that hospitals generally are not making concerted efforts to identify, much less communicate with, an admitted patient's PCP. Hospitals complain that many patients can't remember their community physician if asked. In response, many practices now provide patients with wallet cards that identify their clinic and provider and include contact information, and then train patients to use them when getting care. Creative primary care practices have used a variety of strategies to identify their hospitalized patients as early after admission as possible. With the advent of Accountable Care Organizations, many PCPs have found local hospitals to be more receptive to their needs for information about and involvement in their patient's care. It is worth having a conversation with key hospitals to try to reach some agreement about notification and involvement in discharge planning and post-discharge care. Some managed Medicaid companies such as CareOregon use their data resources to provide their providers with daily lists of patients seen in the ED or admitted to the hospital.

Many hospitals have been receptive to collaborating with safety net practices in efforts to facilitate the safe discharge of uninsured patients. Ideally, such collaboration would include:

- Prompt notification of hospital admission.
- Communication with the clinic prior to discharge.
- Collaboration between hospital/specialty care managers and practice care managers post-discharge.
- Prompt PCMH access to a comprehensive discharge summary.
- A timely post-discharge clinic visit.

As with ED use, it is also worth getting hospitalization claims data even though it is too dated to be useful in post-discharge care. Since hospitalizations account for a large proportion of total health care costs, the PCMH that can measure and trend its hospitalization rates will be better positioned to argue for enhanced payment. Many payers and insurers track so-called ambulatory sensitive hospitalizations. This is the subset of hospitalizations viewed as potentially preventable by good ambulatory care.

### Educate Patients

Patient education can be useful both before and after hospitalization. Many PCMHs have orientation programs for new patients and those felt to need it. Such programs introduce patients to the clinic, including its approach to care, and follow-up when patients receive care outside the clinic as in the hospital. Patients are urged to identify their PCP to outside institutions and providers. Some PCMHs that have access to hospital admission information have a nurse either visit or call patients while in hospital to begin coordinating post-discharge care and establish the importance of the post-discharge visit. For higher risk patients who may be care managed by staff from the hospital or a specialty group that provided hospital care, coordination with the PCMH's care management activities is critical to ensure a safe transition.



### Post-Hospital Care

*Care Transitions Intervention* by Eric Coleman, MD, is a proven approach to increasing the safety and efficacy of post-discharge care, and has been widely adopted by hospitals across the U.S.[27] It is worth reviewing the basic elements of the intervention because they involve the patient's medical home, and, if necessary, could be essentially managed by primary care. The foundation of the intervention has four pillars:

1. Assistance with medication self-management.
2. A patient-centered medical record owned and maintained by the patient to facilitate communication among providers.
3. Timely follow-up by community-based care.
4. A list of "red flags" (signs or symptoms suggesting worsening) and recommendations for actions.

The intervention and accompanying tools are well described here. Whether the four pillars are managed by the hospital, the PCMH, or both, primary care must have the critical information about the hospitalization and post-discharge care plan needed to coordinate care effectively and safely.

Medication problems play a significant role in post-discharge problems and re-hospitalizations. It should be obvious that hospital and PCMH staff should collaborate in the development of the post-hospital discharge drug regimen. Sadly, this is not occurring with any regularity most places. For this and other reasons, we and others recommend an early primary care visit by patients following hospital discharge. To guide these visits, the Care Transitions program has developed #16 in Tools and Resources: The Post-Hospital Follow-up Visit: A Physician Checklist to Reduce Readmissions.

# Case Studies

## The Wright Center for Primary Care Mid-Valley Practice

*Archbold, PA (2012)*

### Accountability

Wright Center Mid-Valley is a primary care practice and residency training site in Northeastern Pennsylvania with five physicians and four PAs/NPs. Wright Center's Medical Director, Linda Thomas-Hemak, MD, noted a growing number of referrals that never resulted in a consultation note in the patient's medical record, and patient and provider dissatisfaction with the referral process. Clinic leaders reached consensus that something needed to be done, and studied the referral process. They found that they weren't fully or effectively using the functionality of their EHR to better manage referrals. In response, they enhanced the requests for referrals by inserting color coded time expectations (e.g., an emergent or urgent referral would be in red with an appointment made within 24 hours or one week, respectively). They created an exception report that listed referrals that were incomplete or open. They decided that referrals would remain open until the final report was in Wright Center's EHR. A referral for colonoscopy, for example, would be considered to be open until the pathology report of any biopsies was in the EHR. To help manage the process, the clinic sent all referrals to a single referral coordinator, AKA the "referral queen" or "scheduler." The referral status or exception report stratifies overdue referrals by urgency; urgent and emergent exceptions are identified and acted upon daily and less urgent referrals periodically. Providers, care managers, and others all participate in helping close open referrals.

### Relationships and Agreements

By centralizing the referral process, the clinic noted problems with the appointment making process. The "referral queen" initially tried to help patients make appointments and found herself often shuttling information between the patient and the specialist's office. Clearly direct communication between patient and specialist appointment clerks would be more efficient. Clinic leaders and the referral coordinator began having conversations with key consultants as to how to improve the referral process. These discussions clarified what patient information each specialty wanted with the referral requests, and enabled the clinic to convince key specialty offices to call patients to establish appointments. The Wright Center now uses its exception reports and related information to identify and promote "good neighbor" specialists.

## Family Care Network: Developing Agreements Between Primary Care and Specialty Groups

*Western Washington (2013)*

### Accountability

The Family Care Network (FCN) is a family practice in Northwestern Washington state with approximately 75 providers including physicians, nurse practitioners, and physician assistants. With 12 clinics throughout the county, their providers aim to understand their patients' lives and develop trusting provider-patient relationships.

A few years ago, the practice held a series of focus groups with their patients. They were surprised to learn that their patients' primary concern was being unable to navigate across the silos of their medical care. Specifically, patients expressed difficulty coordinating care when they were referred out to a specialist. Each physician they saw would change medications and when the patient experienced problems, they didn't know which doctor to contact. With this finding, the Network's Medical leaders decided to improve their patients' care coordination.

### Agreements

After brainstorming solutions, they decided to try to establish service agreements with the key specialty groups they worked with frequently. According to Berdi Safford, MD, the goals of these service agreements were to:

- Improve communication between the provider groups.
- Develop "seamless handoffs" for patients.

Service agreements create a vehicle for critical conversations between primary and specialty care to occur. For example, a common complaint from specialists is that patients are referred to them without a clear understanding of the clinical question. Likewise, primary care providers often state that a consultation report does not meet their needs. To counter this finger pointing, Dr. Safford initiates conversations with key consultants by discussing the best care for a typical patient case. In addition, she keeps the following in mind while negotiating service agreements:

- Find common goals and work on them.
- Assume all providers have the best intent for the patient's care.
- Avoid confrontation.
- Focus on the system and not the people.

The practice's first target in developing service agreements was with its local cardiology group. The agreement took about one year to develop, which is not an uncommon timeframe. The group of 12 cardiologists was often referring patients to additional specialists and not keeping the primary care provider in the loop. The situation was further complicated because the cardiology group was setting up a heart failure center, which many PCPs opposed because it blurred the lines between specialist and primary care responsibilities. The service agreement enabled a cooperative relationship between the two groups to form.

The FCN-cardiology agreement covers the following areas:

1. Emergency Referrals.
   a. How will Cardiology Group provide consultations and admissions?
      i. A just-in-time consult phone list includes each cardiologist by specialty and phone number.
   b. What patient information will the Primary Care Group provide to Cardiology Group?

2. Emergency Testing.
   a. How and who will order emergency testing?
   b. Who is responsible for further urgent care?
   c. What are the time expectations for sending information back to Primary Care Group?

3. Routine Consultation.
   a. What patient information will Primary Care Group submit with referral?
   b. How will appointments be booked?
   c. Referral will indicate if Cardiology Group is to:
      i. Consult only (two visits).
      ii. Assume care of cardiac disease.
      iii. Assume management of care until patient is stable.
   d. Expectation that Cardiology Group will not refer patient for tests or services outside the scope of cardiovascular health.
   e. Who will fill out insurance information about referral?
   f. Who will follow-up with patients about tests ordered by Cardiology Group?
   g. How will information be sent back to Primary Care Group?

4. Follow-up Care.
   a. When patient is referred to Cardiology Group to:
      i. Have consult only.
         • How will appointments be booked back with Primary Care Group?
         •. Who is responsible for ongoing prescription refills?
      ii. Assume care of cardiac disease.
         • Who is responsible for testing and follow-up?
         • How will Primary Care Group be kept abreast of patient care?
      iii. Assume management of cardiac care until patient is stable.
         • Who is responsible for primary cardiology care and for how long?

5. Re-Referral.
   a. Who is responsible for ongoing medications?
   b. How is the patient's cardiac care managed once transferred back to the Primary Care Group?

6. Inpatient Care.
   a. How will Cardiology Group alert Primary Care Group of hospital admission?
   b. What will be included in discharge summary (including follow-up) and how will that information be transferred to Primary Care Group?

7. Ongoing Relationship and Education.
   a. How regularly will Primary Care Group and Cardiology Group meet to review service agreement?
   b. How will Cardiology Group provide education to Primary Care Group?

8. Insurance Referral Requests.
   a. How will insurance logistics be handled by both groups?

It was important for the process that the service agreements focus on types of patients and lay out who (Primary Care or Cardiology Group) is responsible for specific details such as ordering procedures, booking appointments, and filling out insurance information. Time expectations for consultative reports were also included.

Dr. Safford and the Cardiology Group continue to meet every three months to maintain their dialogue. The collaboration has also led to continuing medical education courses provided by the Cardiology Group.

Although insurance does not pay for the effort and time to develop and maintain this service agreement, Dr. Safford believes it has improved her patients' care.

## Genesys Health System: Developing Linkages with Community Resources

*Michigan (2011)*

### Accountability

Genesys Health System, a member of Ascension Health, is a regionally integrated health care delivery system providing a full continuum of care. It partners with approximately 140 primary care physicians in central Michigan. Genesys HealthWorks is a strategic initiative within Genesys Health System to create a new model of care that is focused on health, not just disease. The program focuses on coordinating care for patients using community resources. The initiative is led by Trissa Torres, MD, who is a physician focusing on preventive medicine and public health.
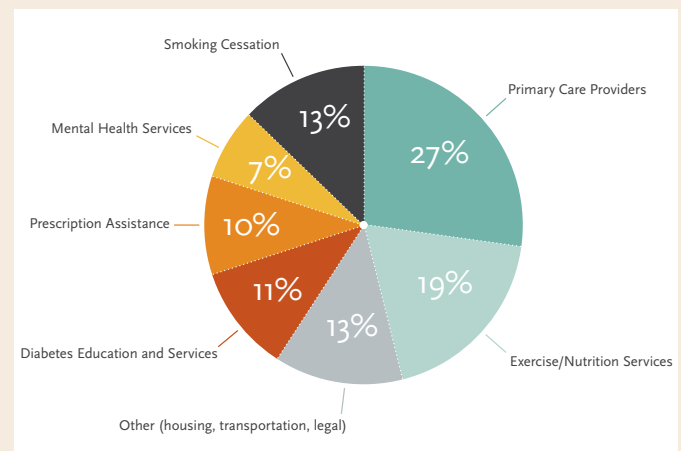
### Patient Support

HealthWorks employs Health Navigators, who are members of the primary care practice team, to develop and help patients utilize community service linkages. The Health Navigator's primary focus is to support patient self-management, particularly health behavior changes such as eating healthier, increasing physical activity, or quitting smoking. As patients identify barriers to adopting healthy behaviors, Health Navigators often suggest community resources to enhance support for patient self-management. Its effort to develop partnerships with community resources is analogous to efforts to identify and develop relationships with key medical specialists.

HealthWorks and Health Navigators emphasize the distinction between simply making a referral and making an effective referral that results in access to services. "Behavior change takes place in the context of a relationship," explains Dr. Torres. A community referral is most effective when you "transfer the relationship between the Health Navigator and the patient to the community resource." The Health Navigator is knowledgeable about key community resources and knows how to prepare the patient for the referral. For example, the Health Navigator can share details with patients about what their initial experiences will be, such as whether patients should bring a towel and a change of clothes to the swim class. Effective referrals go above and beyond handing patients a

brochure or referral slip. By sharing specific details about what patients should expect and whom to go to for help, patients are more likely to follow through on referrals. In 2009, Health Navigators made the following types of linkages:

### Figure 4: Community Referrals and Linkages



Navigators inform patients that they will contact them after the scheduled referral. During this follow-up contact, the Health Navigator identifies and addresses problems. If a patient did not complete the referral, the Health Navigator works with the patient to overcome barriers to accessing the community resource.

The Genesys HealthWorks Health Navigator program conducted a telephone survey with almost 2,000 patients to evaluate their program. Patients were interviewed at initiation and six months after they began the program. The following self-reported improvements in health behaviors and health outcomes were found:

- 17% (120/713) of smokers quit smoking.
- 45% (217/481) who had never received formal diabetes education attended Diabetes Self-Management Education.
- 42% (260/620) of patients screening positive for depression reported improved symptoms.

In addition, the interviews found high patient satisfaction with the program.

### Humboldt County: Tracking Referrals through an Electronic Referral System

*Northern California (2011)*

The [Humboldt Independent Practice Association](#) (IPA) in Northern California has a track record of implementing successful quality improvement initiatives.
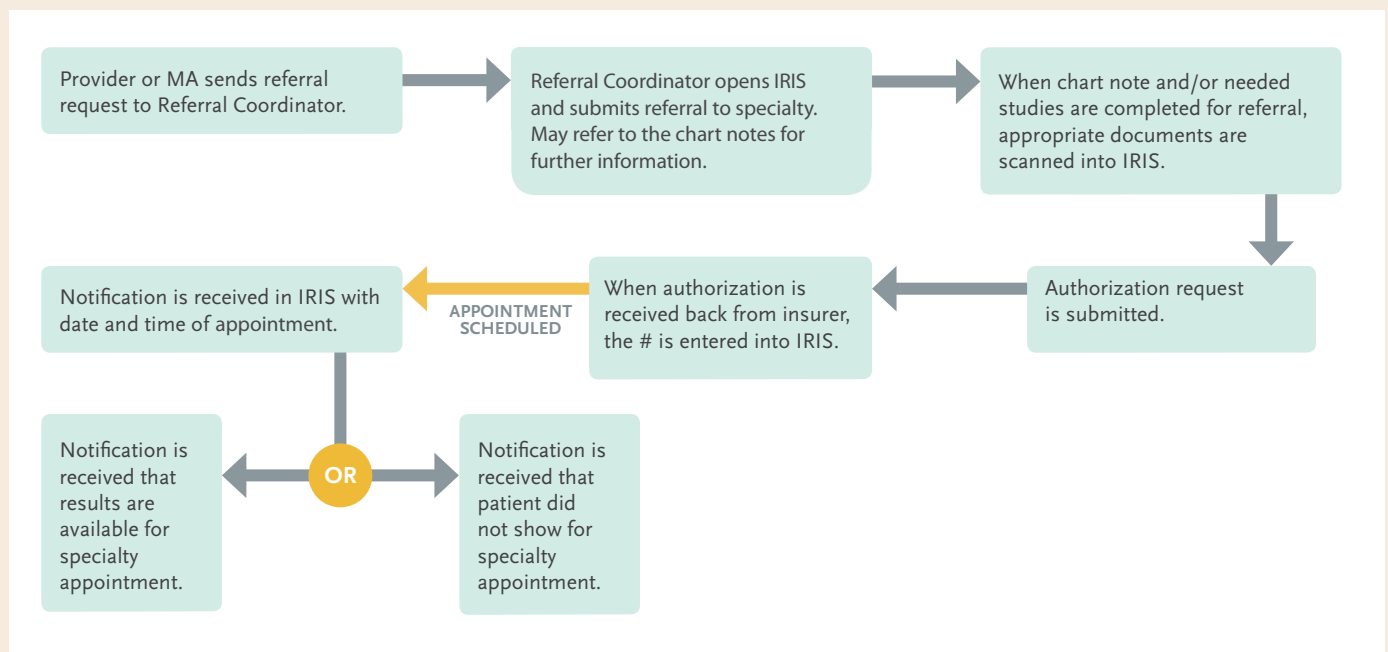
#### Accountability and Connectivity
After reviewing e-referral vendor options, the IPA adopted the Internet Referral Information System (IRIS) that was first used in Cook County, Illinois. The technology's design is often compared to how FedEx® tracks its packages, because if a step within the process does not take place, the system sends an automatic alert. All of the referral steps, from beginning to end, are tracked by a referral coordinator.

The referral coordinator is a clerical position; often it is the practice's receptionist. Through her pro-active follow-through, the practice has been able to accomplish a 100% completion rate for mammography referrals.

The referral coordinator monitors reports generated by the e-referral system. Examples of these reports include referral appointments that have been missed by patients or consultative reports that have not yet been received. The referral coordinator follows up on these referral problems and takes action. She is also accountable for ensuring that information between the primary care practice and specialist's office is exchanged. The following figure shows the workflow using the e-referral system:

Figure 5: e-Referral Workflow

The e-referral system incorporates rules that are analogous to referral guidelines often included in service agreements. The goals of the rules are to:

- Increase the appropriateness of referrals.
- Prompt preparatory work that should be completed prior to the specialist appointment.
- Establish "rules of engagement" for specialty referral PCP-specialist compact.

IRIS produces a set of instructions for referrals to specialists and for procedures. For example, a referral for a CT scan with contrast automatically prompts an alert to the primary care clinic to have the patient complete a serum creatinine test within the month prior to the CT scan. Adherence to these referral guidelines are monitored by the referral coordinator via protocol. While there is significant variation in how individual clinicians use IRIS, an effective approach is to have the clinician start the process electronically with the patient in the room. The patient receives "patient instructions" that outline next steps. To support the roll-out of e-referral across sites, the IPA hired a full-time coordinator who works with clinics to implement the system. The coordinator is able to troubleshoot problems and continually monitor the system. She was involved in training all of the referral coordinators at each of the clinics and developed their user guide. For the latest information, click here.

Humboldt's leadership believes that, "IRIS will serve as the platform to transform individual isolated medical homes into true medical neighborhoods."

## San Francisco General Hospital: Connectivity Through Electronic Referral

*(2011)*

San Francisco General Hospital & Trauma Center (SFGH) is the city's only public hospital and Level 1 Trauma Center for the residents of San Francisco and northern San Mateo counties. The hospital is owned and operated by the City and County of San Francisco's Department of Public Health and serves as the hub of the county's safety net delivery system, which includes 35 community health centers, clinics and affiliated partners. The hospital serves as a teaching hospital for the University of California, San Francisco, and this entire system benefits from shared access to patients' SFGH electronic medical records.

### Accountability and Connectivity

Until recently, the system was plagued with a severe backlog for medical sub-specialty appointments. For example, the wait time for a gastroenterology appointment was 11 months. Referrals were paper-based and faxed or hand-delivered; sometimes the referral was never received and the patient never scheduled. If a patient needed an expedited appointment, the primary care provider had to spend time trying to contact a specialist to advocate on the patient's behalf.

In order to address the backlog, Hal Yee, MD, former chief of the Gastroenterology and Hepatology Division, developed an electronic referral management and consultation system (e-Referral). The two primary goals of the system were to:
- Track referrals so that there was accountability for referrals.
- Reduce wait times.

The technology platform was developed by the hospital's Information Systems Department, and improved with the support of grant funds that also initially paid for the specialist's time to review the incoming queue of referrals.
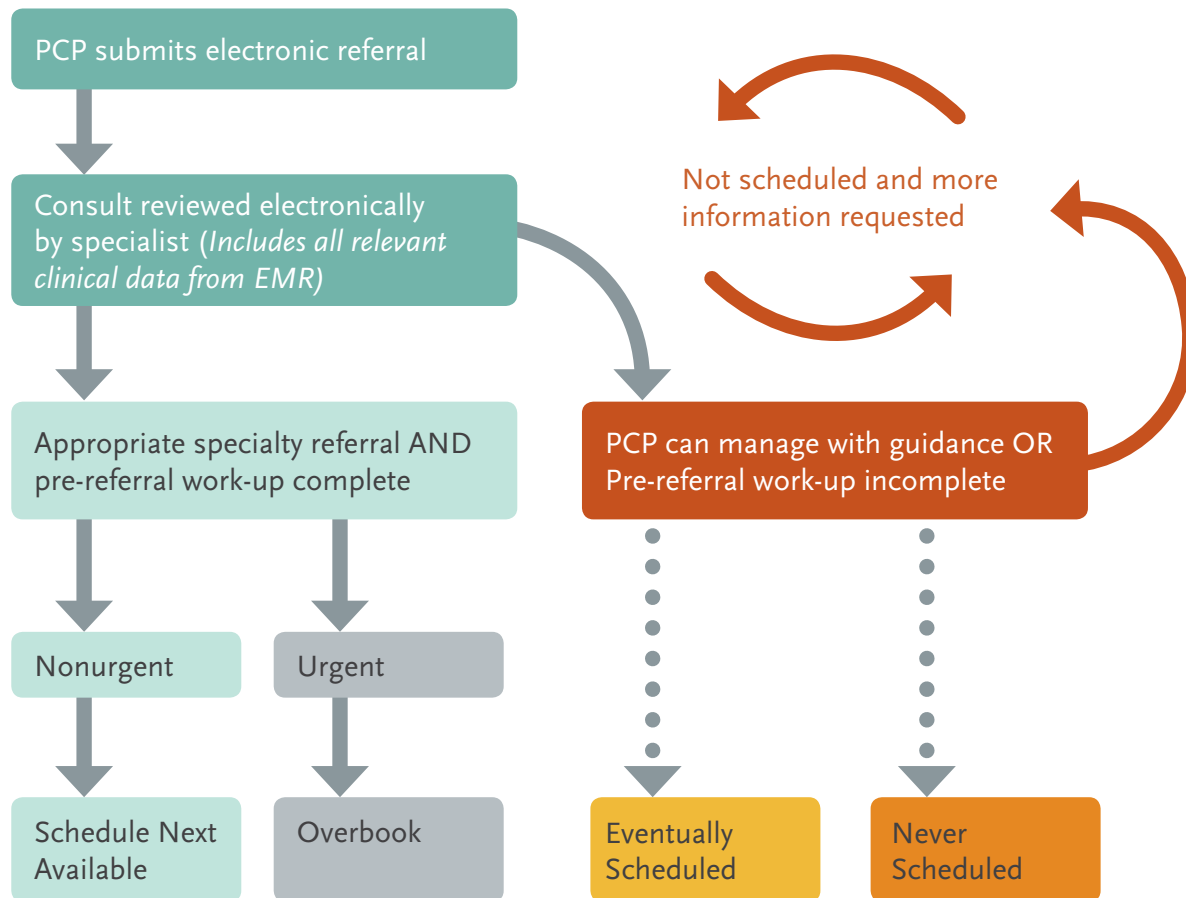
Alice Chen, MD, is the medical director for San Francisco General's Adult Medical Center, and together with Dr. Yee, successfully spread the eReferral system to more than 30 medical specialty clinics and services at SFGH, including radiology services, home care, and diabetes support groups. The system's key components include:
- All referring clinics must use the eReferral system to refer to participating specialty services.
- A centralized, electronic queue for each participating specialty service.
- Each participating specialty service has a designated specialist clinician reviewer with dedicated time to review and respond to referral requests. The reviewer can use the system to schedule appointments, triage patients, request clarification of the consultative question, and provide guidance for pre-visit evaluation.
- The referring provider and specialist reviewer can communicate in an iterative fashion using the eReferral system until the patient's clinical issue has been addressed, with or without an appointment.
- The eReferral system is tightly integrated with the hospital EHR so that all information exchange is documented in the patient's chart in real time.
- The system is limited to initial referrals (rather than referral for follow-up care) because these were decided to be the best use of the reviewer's time.

The following flow diagram depicts how the eReferral system works.

Figure 6: e-Referral System

```
PCP submits electronic referral
          │
          ▼
Consult reviewed electronically
by specialist (Includes all relevant
clinical data from EMR)
          │                        Not scheduled and more
          │                        information requested
   ┌──────┴──────┐
   ▼             ▼
Appropriate      PCP can manage with guidance OR
specialty        Pre-referral work-up incomplete
referral AND
pre-referral
work-up complete
   │                    │              │
   ├──────┐             ▼              ▼
   ▼      ▼         Eventually      Never
Nonurgent  Urgent   Scheduled      Scheduled
   │        │
   ▼        ▼
Schedule   Overbook
Next
Available
```

Drs. Yee and Chen believe that one of the primary values of the eReferral system is facilitation of communication between primary care and specialist providers. Such communication shortly led to electronic or virtual consultations. It is important to note that implementation of these consultations may be difficult because of legal, medical, and logistical reasons. Nonetheless, primary care providers now receive guidance on evaluation and management in a timely fashion, while specialists who see patients in clinic receive clear consultative questions. This information connectivity not only reduces unnecessary specialist appointments, but gives PCPs more opportunity to learn and treat their own patients' clinical issues. Local PCPs are satisfied with the eReferral system, especially clinics with good Internet access. Clinics that only have intermittent internet access are less able to fully benefit from the system. In these practices, referrals tend to be entered by clerical staff, yielding a less informative clinical referral and less opportunity for back-and-forth communication between providers.
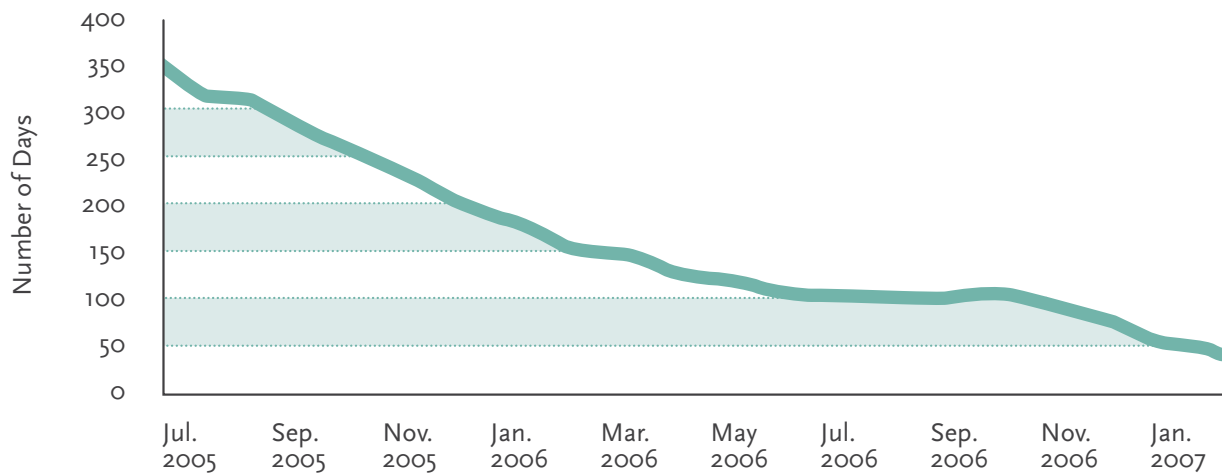
Their eReferral system recently received accolades and is promoted as a successful system. Details are available here. The following results demonstrate that the system's goal of reducing wait times has been achieved. It is clear that SFGH's eReferral system has achieved its goals of improving specialty access and reducing specialty visits.
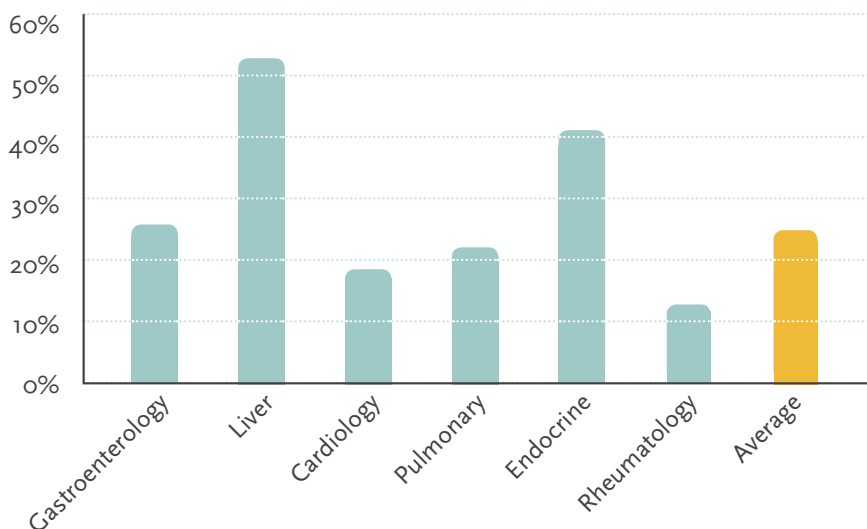
Figure 7: e-Referral Results

## GI CLINIC eREFERRAL: RESULTS

Next Available New Patient GI Clinic Appt
(eReferral Implemented July 2005)



## MEDICAL SPECIALTIES: VISITS AVOIDED

Medicine Clinics Proportion of eReferrals Never Scheduled
Submitted January 2007–December 2007



Source: Yee, Hal, San Francisco General Hospital and Trauma Center, University of California San Francisco. E-Referral: Integrating information technology and clinical provider communication to improve specialty healthcare access and quality. PowerPoint for National Association of Public Hospitals and Health Systems conference call, September 2009.

## Oklahoma School of Community Medicine: Developing and Implementing an Electronic Consultation Platform

*(2011)*

David Kendrick, MD, is a practicing physician who has launched several technology platforms to improve the quality and efficiency of patient care. He has most recently established an electronic consultation system, which has evolved and grown to serve patients across three states. Dr. Kendrick is an associate professor of internal medicine and pediatrics and a Kaiser Chair of Community Medicine at the University of Oklahoma School of Community Medicine. He serves as the medical director for community medical informatics.

### Connectivity

Dr. Kendrick wanted to develop an e-consultation system to simulate the culture of the doctors' lounge where providers gathered, developed relationships, and discussed patient cases together. He also wanted to provide a technological fix that would reduce the number of unnecessary referrals. From experience, he knew that the time crunch faced by many PCPs led to providers initiating a "quick" referral rather than taking the time to research and consult with colleagues about the case. Ultimately, Dr. Kendrick deduced that there were too many patients being referred for specialist visits that could be handled competently within primary care.

When Dr. Kendrick first built his e-consultation prototype, dubbed "Doc2Doc," almost 120 PCPs who predominately practiced in rural settings signed up quickly. Specialists from the University of Oklahoma also agreed to review and respond to the incoming queue of consultation requests. The web-based system's workflow is as follows:

1. A sending provider decides that the patient needs specialist input.
2. Staff (usually a clerical referral coordinator) at the PCP's office initiates the e-consultation.
3. The sending provider adds the clinical information and question.
4. The consulting provider responds to the e-consultation.
5. There may be back-and-forth communication between providers.
6. Useful clinical dialogue that is general in nature may be added to the system's "knowledge base" for other providers to review.
7. If needed, the e-consultation is routed to the clerical staff for referral scheduling.

It's important to note that the system does not link with the EHRs and thus, the clinical exchange is not captured in the patient's chart. This inconvenience however was less important in uptake of the technology than the lack of incentives for specialists, which as described by Dr. Kendrick caused problems in the quality of information and timeliness of responses. Dr. Kendrick in fact learned that a lack of incentives for specialists caused problems in the quality of information and timeliness of their replies. A new approach was deemed necessary.

The Oklahoma Department of Corrections (DOC) system used the University of Oklahoma's Medical School faculty for its specialty referrals. The prison system bears the costs of these referrals and thus wanted to eliminate unnecessary referrals. Dr. Kendrick approached the Oklahoma prison system and, having learned about the necessity of reimbursing specialist time, told the prison system upfront that they would need to pay $50 to the specialist for every completed consultation. Prison e-consultation system was implemented and, ultimately, led to an approximate 50% reduction in utilization of specialty care. Electronic consultations were a cost savings to the system. To date, almost 100,000 e-consultations have taken place and the system has spread to Louisiana and Kentucky.

# Tools and Resources

1. **NCQA Care Coordination Measures**
   This table provides quality measurement items from relevant standards from the NCQA measurement set.

2. **Care Coordination Questions from Validated Instruments**
   This table is an aggregation of patient survey items relevant to the key concepts for referral coordination excerpted from the major validated instruments currently used to monitor quality of care delivery.

3. **Referral Tracking Guide**
   This document on the American College of Physicians Practice Improvement & Innovation website lays out the goals and mechanics of referral tracking.

4. Referral Coordinator Resources
   **Referral Coordinator Job Description**
   This job description is a generic document that was generated from many job descriptions from various delivery systems that were posted on the Internet or supplied by organizations interviewed. It contains skills, tasks and responsibilities that were present across the many descriptions. It also reflects the focus on basic referral coordination tasks, rather than the more clinical tasks included in some care coordination positions and case management positions.

   **Referral Coordinator Curriculum**
   For practice teams or delivery systems that wish to train existing staff to fill referral coordinator functions, this curriculum outline provides a structure with training modules that mirror the elements of the Care Coordination Model.

5. **The Care Transitions Program**$^{SM}$
   This program, under the direction of Eric Coleman, MD, has done fundamental research in improving the care and outcome of patients discharged from hospital and is now being disseminated. The Care Transitions website includes many tools for patients and families to ensure active and informed management activities to ensure safety through care transitions. Please see the website for terms of use and attribution.

6. **Patient Activation Assessment Form**
   This Care Transitions Program$^{SM}$ tool, for use with patients in transition, measures progression of activation in transition related self care skills, assessing confidence in four critical areas of patient activity. It should not be converted into a provider-oriented checklist. The document is free to all. Please see the website for terms of use and attribution.

7. **Colorado Patient-Centered Primary Care Collaborative: Colorado Primary Care–Specialty Care Compact**
   This compact contains definitions, outlines types of care management transitions, provides points for mutual agreement, and provides expectations for primary and specialty care in terms of access, transitions, collaborative management, and patient communication.

8. **Federal Expert Work Group on Pediatric Subspecialty Capacity. Promising Approaches for Strengthening the Interface between Primary and Specialty Pediatric Care**.
   Maternal and Child Health Policy Research Center, American Academy of Pediatrics and the Maternal and Child Health Bureau Department of Health and Human Services. March 2006. This guide outlines promising referral practices, consultation approaches and collaborative management approaches between pediatric subspecialties and primary care practices.

9. Carrier E, Dowling MK, Pham HH. Care coordination agreements, facilitators, and lessons learned. *Am J Manag Care.* 2012;18:e398-404. Avaliable here.

10. Essential Components of a Referral Document
Berta W, Barnsley J, Bloom J, et al. Enhancing continuity of information: essential components of a referral document. *Can Fam Physician.* 2008;54(10):1432-1433, 1433 e1431-1436. This journal article provides detailed information on required domains and data fields to include in referral documents and consultation reports.

11. Essential Components of Consultation Reports
Berta W, Barnsley J, Bloom J, et al. Enhancing continuity of information: essential components of consultation reports. *Can Fam Physician.* 2009;55(6):624-625 e621-625. This journal article provides detailed information on required domains and data fields to include in referral documents and consultation reports.

12. Optimizing Referral & Consults
Reichman M. Optimizing referrals and consults with a standardized process. Fam Pract Manag. 2007;14(10):38-42. This e-journal article provides guidance about standard information and processes that lead to optimal communication between primary care practices and consulting physicians to ensure that referrals and consultations run smoothly for everyone involved. A sample referral and consultation form is included.

13. Electronic or Virtual Consultation
Horner L, Wagner E, Tufano J. Electronic Consultations Between Primary and Specialty Care Clinicians: Early Insights, The Commonwealth Fund. October 2011. This report summarizes recent developments in the use of electronic or virtual consultations, and their effects on specialty visits and other outcomes.

14. EHRs and Care Coordination
O'Malley AS, Grossman JM, Cohen GR, Kemper NM, Pham HH. Are electronic medical records helpful for care coordination? *J Gen Internal Med.* 2010;25(3):177-185.This journal article describes the role that EHRs play in efforts to coordinate care, and contrasts it with the potential that linked EHRs with standardized data could have.

15. Using Web Technology for Patient Referrals
Bridging the Care Gap: Using Web Technology for Patient Referrals: California HealthCare Foundation; September 2008. This 2008 report examines eight Web-based referral systems, including five that are commercially available. The report explores common functions of the new software applications, outlines considerations for those interested in adopting such systems, and highlights providers' successes and challenges in using them. Four case studies are also included.

16. The Post-Hospital Follow-up Visit: A Physician Checklist to Reduce Readmissions. California HealthCare Foundation
This report discusses the purposes and recommended content of a post-hospital visit. October, 2010.

## Reducing Care Fragmentation:
## A Toolkit for Coordinating Care References

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# Appendix A:
## Care Coordination and Health Information Technology

*Jeff Hummel, Peggy Evans, Trudy Bearden, Michelle Glatt*
*Qualis Health*

This addendum is supplemental to the primary Care Coordination Implementation Guide. It describes how PCMH care teams can use HIT in support of care coordination.

Care teams in a Patient-Centered Medical Home (PCMH) face a number of situations in which they must coordinate the care of patients in their panels, including:
- Transitions of care in which a patient is admitted to or discharged from an emergency department (ED), hospital, or long-term care facility.
- Referrals from the PCMH to another provider such as a medical or surgical specialist, advanced imaging consultant, dentist, behavioral therapist, etc.
- Coordination with community and social service resources to assist when the impact of illness overwhelms a patient's social support system.

One recent study showed that in a single year, a typical primary care physician must coordinate with 229 physicians working in over 100 different practices.[1] Health information technology (HIT) can make coordinating patient care easier by providing primary care practices with tools to track patients and manage the flow of information for care transitions. HIT can also provide a structure to enhance communication between a referring clinician and the consultant to make the referral process more efficient and the co-management of a patient's clinical issues more effective. Care coordination means guiding patients and their information across the many handoffs that occur between a PCMH and the other healthcare entities in which their patients receive care. All parties engaged in a hand-off of care need to understand and adhere to the organizational agreements between the PCMH and the partner entities and to adopt standardized workflows to do the work.

HIT tools can be used to:
- Provide clinical decision support (CDS) for care team members as well as patients and caregivers on both sides of each handoff.
- Support enhanced communication between PCMH-based primary care providers and consultants for patient management in advance, or in place of a referral to optimize the utilization of consultants.
- Exchange patient information between providers and among organizational entities assuring that key information is available when needed including continuity of care documents, problem lists, medication and allergy lists, and detailed care plans.
- Monitor the movement of patients and information between entities so that unsuccessful hand-offs can be quickly identified and corrected.

## Care Transitions

The job of the PCMH care team requires knowing when a patient in their panel is seen in an ED or admitted to and discharged from a hospital or long-term care facility. When a patient is seen back in the medical home for a care transition visit, the care team must incorporate into the patient record key new information including new diagnoses, and results of important tests and procedures. They must also ensure that the care plan remains uninterrupted with special attention to changes in medications the patient is taking and tests that need to be monitored during the transition period.

### HIT Support for Effective Care Transitions

- **Admission/discharge notification.** The care team should be notified whenever a patient on the panel is admitted, discharged, or transferred from an ED, hospital, or long-term care facility. A daily faxed report from the facility will suffice. However with a secure electronic interface or connection via health information exchange (HIE) the care team can be notified of an admission or discharge as soon as it occurs. Workflows need to be in place to mobilize the care team to assemble the necessary information, initiate early communication with the patient, and arrange timely follow-up.
- **Including the patient and caregiver in care transitions communication.** The care team should ideally begin to coordinate a care transition as part of the hospital discharge process before the patient is seen in the primary care practice for follow-up. A PCMH care team member can do this by telephone. A patient portal enhances the power of voice communication by serving as a medium for two-way sharing of information so that patients and their caregivers have information they need, and so that home monitoring data like daily weights can be shared with the care team.
- **Medication reconciliation.** The care team must carefully review the medication list to ensure that it reflects changes made during the ED visit or hospitalization. Although this work should be done at the first care transitions office visit with their medical home, it can begin using the patient portal and a telephone visit with a nurse on the care team if all of the necessary information from the hospitalization is available to the care team. The PCMH care team will usually need the list of medications both on admission and at discharge as well as a discharge summary explaining any medication changes during the hospitalization or ED visit. When possible, a bi-directional flow of information between the hospital, PCMH clinicians, and community pharmacies can provide notification to the care team in the event that a patient tries to refill a discontinued medication or fails to refill a new one within the expected time frame.
- **Care transition visit templates.** The efficacy of information transfer following hospital and ED discharges can be increased if both the hospital team and the PCMH care team use standard templates as decision support to ensure that the right questions are asked and the right information is available at both ends of the care transition. This includes summaries for the patient and caregiver that provide a clear guideline for responding to signs and symptoms of a worsening condition, and a comprehensive list of scheduled follow-up appointments. Patient summaries should take into account both the reading level of the patient/caregiver and the level of community or family support needed.

## Referrals

A referral entails a hand-off of information and responsibility for patients, which if left to chance has the potential to waste time and resources, and may place the patient at risk. Agreements between a PCMH and the specialist or imaging center must be in place before HIT can fulfill its potential for coordinating referrals. Ideally referrals are more than simply sending a patient to another provider with a question, but involve a conversation between the referring provider and the consultant to determine the best use of the consultant's knowledge and skills.

### HIT Support for Referrals

HIT can improve referral coordination by helping care teams track referrals and by providing a structure to enhance the communication between the referring provider and the consultant.

- **Referral tracking:** HIT can be used to help care teams prevent patents from "falling through the cracks." The care team can use time-date stamping of key steps in a referral from their EHR and similar data from the consultant's EHR to track referrals through the most important care coordination steps.  Although it may not be necessary to track every step, potential steps to monitor include:
  - Placing the order.
  - Verifying insurance authorization.
  - Receipt of referral by the consultant office.
  - Review of the referral by a consultant to determine the optimal action plan.
  - Communication between consultant and referring provider.
  - Scheduling the patient to see the consultant.
  - The visit(s) with the consultant including any procedures.
  - Writing the consultation report.
  - Sending the consultant's report to the referring provider's EHR.
  - Entering the consult report into the EHR as a completed order.
  - Review of the referral report by the referring provider.
  - Follow-up communication and/or visit with the patient and the referring provider.

Reports can be written to identify patients whose referrals have failed to pass one of the monitored steps. The care team can then investigate by contacting the patient and/or the consultant's office to identify and address the cause of the interrupted referral.

- **Communication between providers:** Organizational agreements should be designed to provide a structure for how information moves during referrals with the goal of improving the efficiency of the care the patient receives at both ends of the referral process.  There are a number of facets to how this can happen.
  - Order sets can be designed, with branching logic if necessary, prompting the referring provider to order any tests that may help the consultant answer the question the referral is asking the consultant to address. This helps use the consultant's time wisely. To be of optimal value, information contained in a referral order should be configured to pass through an HIE between the referring provider and consultant as discrete data that each EHR can use, and not simply be delivered as readable text.
  - HIT can also help a PCMH optimize consultant resources. For example, HIT can help referring providers access the expertise of consultants without necessarily having the consultant see the patient. A consultant can often answer a question posed in a referral through asynchronous messaging (e-mail), provide guidance for a work-up, or give advice on how to manage a patient without needing to schedule an appointment for a visit. Such "eConsults" or "eReferrals" form part of the spectrum of care that consultants can provide. This requires sufficient HIE capability to give consultants access to key information in the patient's ambulatory EHR, as well as a mode of electronic communication that is documented in the patient's ambulatory record. Electronic communication can always be supplemented with real-time telephone communication between providers as needed.

## Coordination with Community Resources: HIT Supports

Patients suffering from cognitive impairment or surrounded by social disorganization often have difficulty making healthy choices in preventing, recognizing, and managing disease complications. This results in high costs due to excessive ED use and hospitalization. Much of the ability of a PCMH to achieve the Triple Aim of better care for individuals, better health populations, and lower cost depends on the ability of care teams to identify patients in their panels at increased risk and mobilize community resources to assist in their care. HIT is a valuable tool for doing this work.

• Reports from the EHR can identify patients in each care team's panel with specific needs or utilization patterns, and match those patients with community resources.

• HIE with adequate security for behavioral health issues can be used to facilitate "virtual huddles" with social service resources and community mental health facilities.

• Many states have programs that support onsite personnel for Screening, Basic Intervention, Referral and Treatment (SBIRT) for patients with behavioral health issues or drug or alcohol dependency. It is important to ensure the information gathered by these programs is integrated into the PCMH EHR to assist care coordination.

• Many states have registries to track controlled substance prescriptions in a single database. Direct interfaces to these databases make it easier for PCMH care teams to monitor pain management agreements with patients.

## HIT Addendum References

1    Hiangmai HP, O'Malley AS, Bach PB, Saiontz-Martinez C, Schrag D. Primary care physicians' links to other physicians through medicare patients: the scope of care coordination. *Ann Intern Med.* 2009;150:236-242.

## Safety Net Medical Home Initiative