

# Assessing Readiness, Achievement & Impact of Stage 3 Care Coordination Criteria

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Summary of Key Findings for Primary Care Practices  
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### **I. Introduction**

The Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009 laid out an approach to encourage providers to adopt and use health information technology in ways that are expected to improve the quality, safety, and efficiency of care. The centerpiece of HITECH is financial incentives for providers who implement electronic health records (EHRs) and use them in accordance with federally-specified meaningful use criteria. Criteria that promote care coordination are heavily emphasized because of the potential for EHRs, coupled with electronic health information exchange (HIE), to enable patients' health information to follow them between delivery settings. Care coordination criteria focus on summary care record exchange and reconciliation of medications, medication allergies, and problems. These criteria were, however, largely deferred to later stages of meaningful use because of the unique challenges they pose: (1) providers need to learn how to use EHRs to generate key pieces of information that should follow patients between settings; (2) providers need the capability to engage in HIE; and (3) providers need to become accustomed to receiving and incorporating data from other settings. Most providers have little experience exchanging or using electronically shared clinical data, limiting our understanding of how to ensure that the national investment in health IT results in more coordinated care.

Researchers at the University of Michigan, in partnership with the Altarum Institute, were funded by the Agency for Healthcare Research and Quality to conduct a study that (1) assessed the current readiness of primary care practices to meet proposed Stage 3 meaningful use care coordination criteria, (2) identified the underlying barriers and facilitators that enable criteria achievement, and (3) evaluated the potential for criteria achievement to improve care coordination. The findings offer specific guidance to policymakers on how to refine the criteria in ways that are likely to improve care coordination. For EHR vendors, the findings point to technology barriers that impede care coordination as well as EHR innovations that would address them. For primary care providers, the findings inform the design of effective strategies to meet the criteria in ways that facilitate more coordinated care.

**This report focuses on strategies for primary care practices to enhance care coordination using an EHR and to increase the value of meeting the Stage 3 meaningful use care coordination criteria.**

## II. Methods

Our study focused on the proposed Stage 3 meaningful use care coordination criteria from the perspective of primary care practices. At the time the study was designed, there were three proposed criteria, which are summarized in the table below. Stage 3 meaningful use criteria are expected to be finalized in 2015.

STAGE 2	STAGE 3
<p><b>Summary of Care Record</b></p> <ul style="list-style-type: none"> <li>- Summary of Care Record sent for &gt;50% of transitions of care or referrals               <ul style="list-style-type: none"> <li>o &gt;10% sent electronically</li> </ul> </li> </ul> <p><i>Note: A Summary of Care Record must include Patient name, Referring or transitioning provider, Procedures, Encounter diagnosis, Immunizations, Laboratory test results, Vital signs, Smoking status, Functional status, Demographic information, Care plan field, including goals and instructions, Care team, Reason for referral, Current problem list, Current medication list, Current medication allergy list.</i></p>	<ul style="list-style-type: none"> <li>- Summary of Care Record sent for ≥65% of transitions of care or referrals               <ul style="list-style-type: none"> <li>o ≥30% sent electronically</li> </ul> </li> <li>- Summary of Care Record for referrals must also include a “concise narrative in support of care transitions” (free text that captures current care synopsis and expectations for referral)</li> </ul>
<p><b>Referral Acknowledgement and Report Return</b></p> <p>NONE</p>	<ul style="list-style-type: none"> <li>- Eligible professional or setting to whom the patient is referred:               <ul style="list-style-type: none"> <li>o acknowledges receipt of external information</li> <li>AND</li> <li>o returns referral results generated from the EHR</li> </ul> </li> </ul> <p>for 50% of referrals, with 10% returned electronically</p>
<p><b>Reconciliation</b></p> <ul style="list-style-type: none"> <li>- Medication (for &gt;50% of transitions of care)</li> </ul> <p><i>Note: Reconciliation is the process of comparing information from multiple sources to ensure records are accurate and up-to-date</i></p>	<ul style="list-style-type: none"> <li>- Medication (for &gt;50% of transitions of care)</li> <li>- Medication Allergy (for &gt;10% of transitions)</li> <li>- Problems (e.g., uncontrolled diabetes) (for &gt;10% of transitions)</li> </ul>

Our study included a statewide survey of primary care practices, complemented by three rounds of interviews in 12 primary care practices that attempted to achieve the proposed Stage 3 care coordination criteria. The *statewide survey* captured practice demographics, readiness for Stage 2 and Stage 3 meaningful use care coordination criteria, health information exchange (HIE) participation, facilitators and barriers to meeting Stage 3 criteria, perceived impact of Stage 3 criteria and optimal approach to information sharing to support care coordination. A subset of questions was targeted specifically to PCPs. The survey was administered in late 2013 to a random sample of 328 primary care practices in Michigan that had achieved Stage 1 Meaningful Use with support from the Michigan Center for Effective IT Adoption (M-CEITA), the Michigan Regional Extension Center. We received responses from 233 practice managers (71% response rate) and 174 primary care providers (53% response rate). All reported figures were estimated using survey sampling weights based on our sampling strategy in order to

generalize results to the statewide population of primary care practices that had achieved Stage 1 meaningful use.

In the *implementation arm* of our study, 12 practices attempted to achieve the proposed Stage 3 care coordination criteria with support from an implementation specialist from M-CEITA. Practices ranged in size from 1 to 19 full-time physicians and used EHRs from nine different vendors. All practices had achieved Stage 1 meaningful use with the support of M-CEITA as of September 1, 2013, as well as participated in Michigan Health Connect (MHC), a regional health information organization in western Michigan. M-CEITA implementation specialists conducted an on-site initial assessment, identified barriers, developed a plan to achieve target criteria, and supported plan execution. We assessed the implementation experience by conducting three rounds of semi-structured interviews with key practice staff (the practice manager and at least one PCP) between October 2013 and June 2014: interviews were in person at the outset of implementation, by phone three months later, and again in person six months following initiation of implementation. The initial round of interviews focused on current state processes of supporting care coordination using EHRs. The second round of interviews focused on barriers to achieving Stage 3 care coordination measures and potential strategies to overcome them. The final round of interviews focused on progress towards achieving the criteria, suggested changes to the criteria, strategies for increasing the impact of the criteria, and EHR innovations to support criteria achievement. Interview transcripts were coded and analyzed to extract key findings.

### III. Results: Readiness to Meet Stage 3 Care Coordination Criteria

Statewide survey data revealed that fax was the dominant form of sharing patient information (56% of practices). Twenty percent of practices primarily relied on a shared EHR platform and 8% of practices primarily relied on a local HIE effort to share patient information.

Percent of practices primarily relying on the following forms of patient information sharing:

- Fax/eFax 56%
- Shared EHR 20%
- Mail 15%
- HIE 8%

Twelve percent of our statewide sample reported the ability to meet all the proposed Stage 3 care coordination criteria. When we examined each component of the criteria separately, there was a range in the proportion of practices currently able to meet it. Only 38% of practices could receive at least ten percent of referral results electronically while 86% of practices could reconcile medication allergies and 78% of practices could reconcile problem lists during a relevant encounter for more than ten percent of transitions of care (TOCs) (Table 1).

Table 1. Readiness for Stage 3 Care Coordination Criteria

Criteria	Yes	No	Unsure
Provide a summary of care record for at least 65% of TOCs and referrals	66%	29%	4%
Provide a summary of care record electronically for at least 30% of TOCs and referrals	45%	51%	4%
Include in the Summary of Care Record a concise narrative in support of referrals	43%	44%	14%
Receive referral results for at least 50% of referrals	60%	34%	6%
<b>Receive at least 10% of referral results electronically</b>	<b>38%</b>	<b>58%</b>	<b>5%</b>
<b>Reconcile medication allergies during a relevant encounter for &gt;10% of TOCs</b>	<b>86%</b>	<b>9%</b>	<b>5%</b>
<b>Reconcile problems during a relevant encounter for &gt;10% of TOCs</b>	<b>78%</b>	<b>17%</b>	<b>5%</b>

Overall, Stage 3 care coordination readiness did not vary by (1) practice size, (2) whether or not the practice was part of an integrated delivery network, or (3) whether or not the practice participated in an HIE effort.

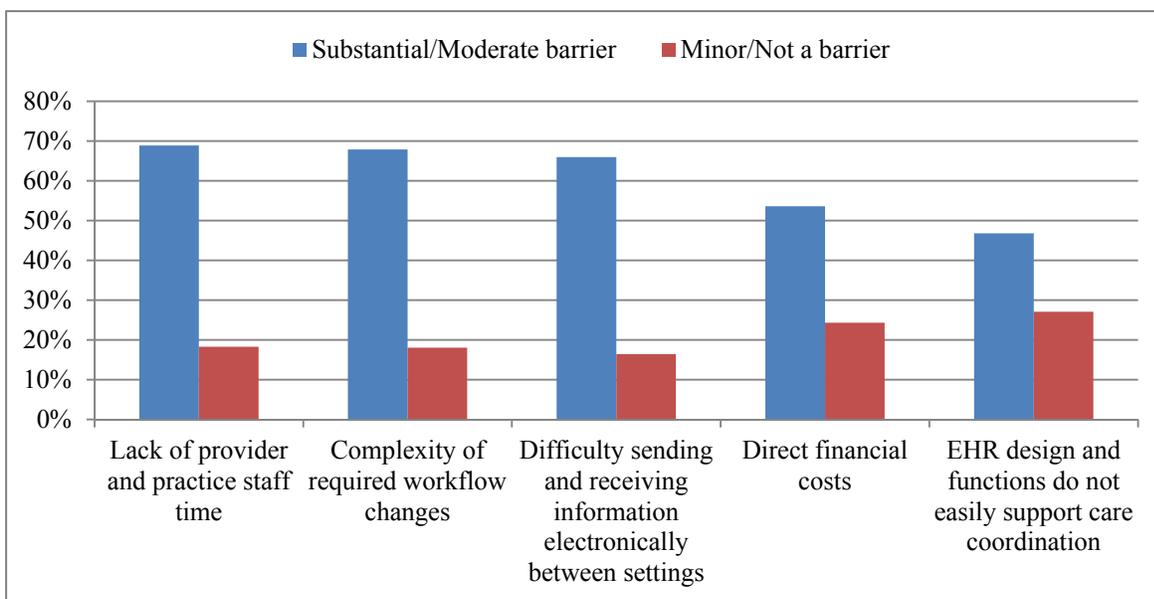
#### IV. Results: Maximizing the Value of Meeting Stage 3 Care Coordination Criteria

Our statewide survey and implementation assessment revealed common barriers to meeting the Stage 3 care coordination criteria, as well as strategies practices used to address those barriers.

##### a. Overarching Barriers

Practices in the statewide survey sample perceived the major barriers to achieving Stage 3 care coordination criteria to be *lack of provider and practice staff time* (cited as a substantial or moderate barrier by 69% of practices), *complex required workflow changes* (68%), and *difficulty sending and receiving information electronically between settings* (66%) (Figure 1).

Figure 1. Barriers to Achieving Stage 3 Care Coordination Criteria



When attempting to achieve the Stage 3 care coordination criteria, implementation sample practices encountered the same barriers and offered more insight into the nature of the barriers. Practices reported that lack of staff and provider time was a barrier to fully understanding meaningful use criteria and the available EHR and HIE functions that can support achieving them. Difficulty sending and receiving information electronically was due to lack of interoperability across different EHR systems. Implementation sample practices also provided examples of challenging care coordination workflows that cut across the barriers in Figure 1, including (1) creating and sending summary of care records and other referral documents, (2) tracking communication and documentation flow with external settings, and (3) integrating external information into their EHR.

##### b. Overarching Strategies

Implementation sample practices reported a set of general strategies to meet meaningful use care coordination criteria in a way that increased the value of doing so.

**Maximize effective use of available EHR and HIE functions.** While all implementation sample practices had an EHR, had achieved Stage 1 meaningful use, and had similar HIE options available, those

that fully understood how to use their EHR and HIE functionalities were better able to overcome, eliminate, or work around care coordination barriers. To facilitate effective use, it was necessary to dedicate staff time and resources to learn about the full set of functionalities. Participating in vendor conferences or developing strong communication with vendors (both EHR and HIE) helped practices leverage their EHR and HIE functionalities, particularly when barriers were encountered. Staff with this knowledge, known as super-users, were often paired with less experienced staff to ensure the knowledge was disseminated across the practice. It was also helpful to create practice policies to ensure consistent use of the EHR, such as where to document specific types of information from referral reports or discharge summaries when the EHR offered more than one option.

*“Right now we’re doing lunch and learns. We have 9 topics to train the staff on. Everyone has an overview and every week we’re doing the same lunch and learn all week long. I think that process has really helped to educate the staff.”*

*“I think [shifting more EHR-related work from providers to MAs] has made it more efficient and has allowed the providers to spend more time with the patient.”*

### **Utilize the lowest level of staff appropriate for managing referrals, information exchange, and integration of information related to care coordination.**

A common complaint from providers was reduced face-to-face time with patients during the encounter due to the need to spend more time working with the EHR. Shifting as much of the EHR-related work as possible to the

lowest level of staff promoted more efficient use of provider time, but caused some challenges as staff adjusted to their new tasks. Many physicians had trouble delegating tasks, and the volume of new tasks often overwhelmed support staff. Practices found it helpful to make gradual adjustments, shifting one or a few tasks at a time from physicians to support staff.

*“I think [changes in division-of-labor] really didn’t move forward until we involved all of the players and had some physician and staff accountability. It’s a written process, so no one can claim that they didn’t know about the change. I think having a documented process and really involving people helped.”*

A complementary strategy was to empower practice managers to lead changes in division-of-labor and hold staff accountable for their assigned tasks. EHR tasking features were often used to reinforce these changes. Together, these tactics ensured that patient data was properly documented before it reached the providers, which allowed providers to spend more time focused on patient care.

### **Engage the local community and referral network to learn strategies for EHR and HIE use, and to set community norms.**

*“[At monthly physician organization meetings], we answered questions about when we received information from the hospital and hospitalists and that has really helped [to identify issues]. The physician organization does a great job communicating with all of us when there are issues [with exchanging information] and helping us work them out.”*

workflows to accommodate increased use of EHRs and HIE to support care coordination. Participating in meetings with physician organizations, local hospital systems, HIE vendors, and others was a valuable resource for practices to glean strategies. These forums also allowed practices to provide input on setting community norms for care coordination – such as the type of information that is shared during care transitions and the timing for doing so.

### **c. Strategies to Address Specific Barriers**

Beyond the general strategies outlined above, practices reported a set of strategies that could help address specific barriers to meeting Stage 3 care coordination criteria in ways that were perceived to add value.

**Barrier: Difficulty generating referral materials from the EHR, including a usable Summary of Care Record (SCR).** Some implementation practices struggled to pull the information needed for a

referral from their EHR. This was due to various issues, such as the organization of information in the EHR, the EHR's inability to compile a SCR with the appropriate level of detail or desired customization, or the inability of the EHR to send a referral directly to the specialist.

**Strategies: Create processes to clearly identify required data and reduce extraneous data for referrals.** Strategies that helped practices pull the information necessary for referrals included having the provider add notes directly to the chart to inform the support staff responsible for the referral which information or documents to include. Some practices included diagnosis codes in the problem lists within their referral request for clarity and for aiding communication with the specialists. This additional level of detail often reduced ambiguity during problem list reconciliation when more than one similar diagnostic code could apply.

To accommodate variation in referral information preferences from specialists, one practice created six referral templates based on the needs of their most frequently utilized specialists. They also limited additional customization to reduce staff time spent accommodating individual referral requests. To reduce extraneous data included in the referral request, some practices worked around EHR functionality, such as printing the SCR, removing certain pages, and then sending the partial SCR to the specialist. Strategies of this nature, however, may jeopardize provider ability to meet meaningful use requirements and so other practices chose to include but demarcate information required for meaningful use that was felt to be extraneous for the referral.

*"We've taken a huge step backwards because of the new requirements... [so] what we do in our SCR now is we have the same first part of the letter that we had developed, and everything that follows we put under a header that says "Required for MU" because the specialists are not going to want that."*

*"[Medical assistants] have to spend a lot of time tracking [referrals]. First, they contact the patient to make sure they went to the appointment. Then they follow up with the specialist for the report... There hasn't really been an increase in [receiving information from specialists]."*

**Barrier: Tracking referral requests throughout the referral process.** Given the various methods for sharing information with specialists, practices reported significant difficulty tracking referral progress, including confirming that the patient had an appointment with the specialist, that they attended the visit, and that documentation was returned to the primary care practice.

**Strategies: Leverage existing HIE options and develop standard processes with individual specialists where possible.** Practices leveraged the tasking or orders features in their EHR to designate referrals as "in progress" in order to easily identify outstanding referrals. A subset of practices worked with specialists to develop a process to acknowledge referral receipt using functions available in the HIE platform offered by Michigan Health Connect. When the specialist practiced in a setting that offered a portal into their EHR, primary care practices that signed up for the portal found it to be useful for tracking referral status and retrieving information about the visit.

**Barrier: Processing incoming information from referrals and discharges.** Because of limited interoperability between EHRs, most referral reports and discharge summaries were returned to primary care practices on paper or in PDF. Significant staff time was required to review incoming information and ensure it was filed or uploaded into their EHR (including manual data entry to update discrete data elements).

*"[Using the EHR is still very time consuming and relies on someone entering information.] A person still has to sit down and put in the information into the EHR... The doc has to read it, underline it, the nurse has to scan it. It just takes forever."*

**Strategies: Establish clear protocols for where referral report and discharge information is documented, by whom and by when, and leverage automated processes when possible.** Practices

used various personnel, process, technology, and community strategies to ensure that transition-of-care documentation was received and appropriately integrated into the EHR, as described below:

**Personnel and process strategies:** Practices established a clear process for who was responsible for data entry, how to enter data based on how it was received, and where to enter it into the EHR. Expectations were set for when, relative to the time the information was received, it was integrated into the EHR. Practices dedicated support staff at the lowest possible level (most often a medical assistant) to make the updates before the provider viewed the information.

**Technology strategies:** Practices that utilized portal access and set up interfaces with labs and pharmacies were able to expedite the process of receiving and reconciling patient data in their EHR. In addition, practices that received alerts when patients were admitted, discharged, or transferred (ADT) were able to avoid manually reviewing daily patient rosters to determine the status of their patients.

**Community strategies:** To increase the quality and timeliness of the data received from specialists in the referral report, and to facilitate the efficient integration of that information into their EHR, some practices collaborated with specialists to establish guidelines for what information should be included in referral reports and the timing for when it should be sent. If specialists repeatedly failed to meet the standards, practices would direct their referrals to adherent specialists.

“Primary care people are demanding a concise [referral report] because if we don’t get it, then we send [patients to a different specialist]. We will just switch.”

## V. Additional Resources

In this report, we focus on strategies that can be used by primary care practices, and organizations that support primary care practices (e.g., Regional Extension Centers, Quality Improvement Organizations), to enhance care coordination and the value of meeting the Stage 3 meaningful use care coordination criteria. Additional findings from our study are available in a report *to policymakers* that offers specific guidance on how to refine the proposed Stage 3 meaningful use criteria in ways that are likely to improve care coordination, and in a report *to EHR vendors* that identifies technology barriers that impede care coordination as well as EHR innovations that would address them.

In brief, the *policy report* suggests seven modifications that would increase the impact of the proposed Stage 3 criteria on care coordination. This includes clarifying expectations regarding SCR narratives and the way patient information is reconciled, increasing thresholds for reconciliation, and expanding criteria to improve timeliness of sharing information after referrals and other care transitions.

The *vendor report* identifies key innovations that would overcome care coordination barriers, including (1) the ability to generate more customized SCRs, (2) EHR features that facilitate a team-based care delivery such as task management, internal communication systems and embedded templates or guided workflows for staff, and (3) functionality to more effectively manage patient care in an information-rich environment, such as EHR tools to track communication with external settings and design features to maintain more user-friendly patient records.

Through action on the part of policymakers, EHR vendors, and primary care practices, our results suggest that the proposed Stage 3 meaningful use criteria have the ability to significantly improve the quality of care coordination.