

# Start with a Strong Foundation

## ***Successful CDS implementation requires a strong foundation***

*Your organization may want to implement clinical decision support (CDS) for many reasons. Your first steps should include assessing your organization's readiness to adopt CDS interventions in your EMR, your staff's interest in using CDS to improve outcomes, and your organization's overall capacity for change. Effectively determining your organization's readiness, resources and change capacity will improve your ability to implement CDS successfully.*

This how-to guide will help your organization:

- Assess the feasibility of implementing and using CDS
- Assess readiness and capacity for CDS
- Take some critical first steps toward getting started on solid footing

<b><i>Signs of a Strong Foundation for CDS</i></b>
✓ Shared understanding about what CDS is – definition and scope
✓ Clear and compelling shared agreement about need for and reasons for improvement to overcome problems with the existing status quo
✓ Shared vision about the role of CDS in enhancing the organization's clinical and operational performance
✓ Clear and achievable objectives for CDS
✓ Organizational readiness and receptivity for integrating CDS into clinical practice.
✓ Key CDS stakeholders identified and engaged
✓ All CDS stakeholders are represented in decision-making and oversight, and each recognizes advantages from the CDS activities

*Documenting and understanding the benefits as well as risks to your organization and the steps involved in implementation will allow your organization to make appropriate decisions about when and how to deploy CDS.*

## **Key Steps for a Strong Foundation**

Successfully adopting CDS is best viewed as creating a program that aligns CDS interventions with specific desired improvements in health care quality and safety. The following practical steps will help your organization assess your capacity for CDS and establish a strong foundation. Within each step, tools and links to other resources are provided that can guide your activities and CDS planning discussions.

### ***Step 1: Identify essential CDS stakeholders and have "starter" conversations***

The impetus for CDS might have come from any number of sources. Maybe a clinician used CDS functionality in residency and suggested CDS to the leader of the practice or organization as a means to solve specific problems. Increasingly, organizations are also motivated by the federal

HITECH Act and Meaningful Use incentives<sup>1</sup> to implement and use EMRs that include CDS capabilities. Whatever the initial motivation, a “starter” conversation that introduces CDS to essential stakeholders is a good first step.



**To-Do:** Look for stakeholders within your organization who have the expertise, leadership skills and authority to contribute to a discussion about using CDS to improve the organization’s quality and safety goals.

<b><i>Participants to Consider for a Starter Conversation</i></b>
<ul style="list-style-type: none"> <li>✓ Organizational leadership - critical</li> <li>• For a hospital or a large organization this may mean the CEO, CIO, or CMIO. For a smaller practice, it may be the partners or owners</li> </ul>
<ul style="list-style-type: none"> <li>✓ Stakeholders who have implemented CDS and/or understand the process</li> <li>• A staff member with experience implementing CDS or who worked in another organization when CDS was implemented</li> </ul>
<ul style="list-style-type: none"> <li>✓ Experienced clinicians who might have influence over other potential end-users within the organization</li> <li>• Experienced clinicians have insight as to how CDS will affect clinical processes. This perspective is essential to beginning discussions.</li> <li>• Key clinical opinion leaders, who are respected and influential in the organization and decisions related to CDS implementation</li> </ul>
<ul style="list-style-type: none"> <li>✓ Members of your IT staff, your IT vendor, or your IT consulting firm</li> <li>• It’s important to know what kind of technical considerations (hardware/software) could affect your CDS implementation.</li> </ul>

### ***Step 2: Within this “starter conversation” begin by brainstorming goals for using CDS***

A starter conversation about how CDS might be used is a necessary early step in preparing for decision-making around CDS. Even with an established quality improvement program, implementing CDS can present new challenges and opportunities. The conversation should start with ensuring a basic understanding of CDS, help bring everyone on board, and lead toward answering some important questions described below.



**To-Do:** A presentation created by the CDS implementer or practice leader can facilitate “starter” conversations, and shared understanding and goals for CDS. The presentation can highlight some of the benefits and barriers to a CDS initiative. The following questions may help to guide the presentation and conversation.

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<sup>1</sup> For more information on HITECH see the CMS official web site for the Electronic Health Records Incentive Programs: <https://www.cms.gov/EHRIncentivePrograms/>

<b><i>Starter Conversations Questions for Stakeholders</i></b>
<ul style="list-style-type: none"> <li>• What is CDS? Does everyone have a good understanding of CDS?</li> </ul>
<ul style="list-style-type: none"> <li>• Does anyone in our organization have prior experience with CDS?</li> </ul>
<ul style="list-style-type: none"> <li>• How can CDS positively affect the organization?               <ul style="list-style-type: none"> <li>○ Stage 1 Meaningful Use financial incentives? Improve clinical quality? Improve workflow?</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Does our organization have quality goals that CDS might help us achieve? What kind of quality goals should our organization start with?</li> </ul>
<ul style="list-style-type: none"> <li>• What types of CDS map to our goals? (e.g., alerts and reminders, documentation tools)</li> </ul>
<ul style="list-style-type: none"> <li>• What are some CDS challenges to consider?               <ul style="list-style-type: none"> <li>○ Cost of systems and training? Workflow changes, e.g. staff collecting new data? Clinical resistance?</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Do we have sufficient stakeholder involvement, shared understanding of CDS, agreement that CDS can support some priority goals, and overall buy-in so that we are ready to proceed with continued planning and preparation for the CDS?               <ul style="list-style-type: none"> <li>○ IF NO, do we need to develop a plan to improve readiness and capacity for change?</li> </ul> </li> </ul>

After discussing how CDS can support your organizational goals and brainstorming potential clinical goals, your stakeholders should continue early planning starting with determining if your organization is truly ready for CDS.



## **Resources and Tools**

**PowerPoint Presentation: Getting CDS Right (Resource #11)** – This powerpoint presentation provides examples of important points to make when preparing a presentation for the starter conversation. The slides include a definition of CDS, key quotations about CDS in its relation to national incentive programs, and checklists that can help prepare for CDS.

### ***Step 3: Determine your cultural and organizational readiness for a CDS initiative***

CDS implementation and adoption cannot begin until it is clear that your organization is ready to use CDS for your selected clinical goals and priorities. Assessing this readiness is critical. To understand how well your organization can handle change (what type of change, how much, and over what time period) is a key aspect of readiness. The concept of “adaptive reserve” – what resources are available to plan for, adapt to, and reflect on major change in an organization – is helpful to consider (See [Initial Lessons From the First National Demonstration Project on Practice Transformation to a Patient-Centered Medical Home](#)).

Organizations with adaptive reserve have a culture of action and reflection cycles in the practice, facilitative leadership, a learning culture, the ability to improvise, a repository of helpful stories about change in the practice, and effective relationships and communication.

To consider your organization’s adaptive reserve, it is important for key stakeholders to consider the added capabilities of EMRs such as order entry, results reporting, and clinical documentation

as well as the challenges associated with their implementation. To the extent that there was significant clinician dissatisfaction or rejection, similar struggles may be expected to occur with CDS implementation. Furthermore, it is important to understand that CDS can only be effective if basic functionality and order entry are currently being used; this is the only way CDS can work properly. Clinician acceptance and use of core EMR capabilities is an important precondition for many CDS interventions.

<b><i>Common Challenges and Barriers to Acceptance and Successful Use of CDS</i></b>
• Clinicians and other end-users are not receptive to the idea of CDS
• CDS interventions are ill-designed or configured and interfere with or frustrate daily work processes
• End-users are not appropriately trained in the work processes required to leverage CDS
• Clinicians and other stakeholders feel forced into using CDS.
• The resources (cost or time) are prohibitive for purchasing or turning on CDS functionality
• Existing work processes have difficulty adapting to CDS interventions
• CDS interventions are not adapted to changing knowledge, work processes or end-user opinion
• Unresolved organizational conflicts, particularly related to existing EMR/IT functionality.



**To-Do:** Ensure that the basic EMR functionality is being used effectively and there are not significant actual or perceived outstanding issues before deciding to implement CDS.



**To-Do:** Assess capacity and readiness for the changes that will likely be necessary to use CDS as a tool for improving clinical quality and safety in your organization.



### **Tools and Resources**

There are many available readiness assessment tools available. Consultancies or educational organizations may also assist by providing an assessment of your organization's readiness.

[Strategic Planning Self Assessment Questionnaire](#) – This brief quiz helps healthcare organizations such as medical groups determine whether it can benefit from formal strategic planning.

[AHRQ Readiness Assessment Resources](#) – This site has tools to help organizations assess readiness for health IT interventions. By completing a readiness assessment an organization will take a major step in identifying where current gaps exist and what needs to be done to close these gaps. Several of these tools assess organizational culture, leadership models, staff aptitude with computer applications, existing resources and IT infrastructure to help guide decisions regarding next steps.

[Will it Work Here? An Innovator's Guide to Adopting Innovations](#) – This guide helps users determine if an innovation such as CDS would be a good fit—or an appropriate stretch—for their healthcare organization by asking a series of questions. Does this innovation fit? Should we do it here? Can we do it here? How can we do it here?

<b>Questions to Help Assess Readiness</b>
• Do we have the resources (including staff with dedicated time) to implement CDS?
• Can we keep pace with rapid development and change?
• Is there strong resistance from key stakeholders? What are the sources of resistance? Who is most likely to resist change? Can the sources of resistance be resolved?
• Has the case for change been made effectively? Do we have the “will” – compelling reasons to desire change from the status quo, particularly related to functions CDS can potentially assist.
• Are there key risks? Can they be mitigated?
• What challenges were faced during the EHR implementation? What are the residual issues and tensions? Can these issues be minimized to more effectively implement or adopt CDS?
• Has the case for change been made effectively?
• Are we flexible? Reflective?
• Is there an influential champion for the technology?
• How has staff members responded to similar changes in the past?
• Do staff members trust the people who will be leading the change effort?
• Do we agree on clear and specific clinical goals and related goals that are linked to the adoption of CDS?

**IF YOUR ORGANIZATION IS NOT READY FOR CDS**, determine if there is interest in improving readiness. Consider the following strategies to improve readiness:

- ✓ The answers to the questions in the table above will point your organization to the issues that need to be resolved to achieve readiness.
- ✓ Your vendor and other outside experts and consultants can help to achieve readiness in many different ways.



### **Resources and Tools**

Working with Outside Experts (Resource #4) – The “Working with Outside Experts” tool will help your organization to consider the types of activities where various outside experts such as vendors, vendor user-groups or consultants might be of assistance.

### ***Step 4: Create a game plan for working on the next sets of activities to continue careful planning for CDS implementation***

Once the decision is made to pursue the use of CDS and general goals have been identified, it is time to think more specifically about the next steps. Establishing a foundation requires not only solidifying the goals for the CDS initiative, but developing a plan for how to proceed.



**To-Do:** Begin to think through and document steps for organizing a CDS program

<b><i>Getting the CDS Game Plan Started</i></b>	
✓	Identify who in your organization will be core members of the CDS Implementation team
✓	Determine the new or existing committees or structures to be involved.
✓	Determine what written documentation is needed to get started (plan, charter, constitution)
✓	Outline and refine a set of initial, achievable quality goals
✓	Identify strategic next steps towards achieving quality goals.
✓	Begin considering the timeframe for adoption relative to the organization's goals and to external regulatory requirements
✓	Continue building a shared vision among key participants (e.g., physicians, nurses, implementers, practice managers, office staff) about CDS' role in enhancing the practice's clinical and operational performance
✓	Ensure oversight by leadership for all strategic and tactical decisions (such as initiation and review of interventions of various types)
✓	Identify primary champions who are respected and represent the important organizational units and roles



### **Small Practice Considerations**

- Small practices may not have experience with the demands of implementing CDS, and it is advisable to use outside experts to help assess readiness. Regional Extension Centers (RECs), consultants, and/or EMR vendors can help to assess readiness and identify strategies to improve readiness. Small practices may also benefit from help from vendors, consultants, or coaches with appropriate expertise and resources to offer them support for shaping and guiding essential provider staff roles needed for CDS success.
- All members of the practice are essential stakeholders - clinical and non-clinical staff. Non-clinical (i.e., administrative) staff should be involved in discussions about CDS since, even though they may not directly use CDS, their responsibilities may affect or be affected by these interventions.
- Leaders of the CDS initiative should lay out the important risks and benefits clinically and financially. This will help ensure that everyone is informed and on board with the CDS.
- Each member of the small practice should reasonably expect to have a satisfactory answer to the question: "What's in it for me?"
- Clinicians and others should be presented with evidence from the growing medical literature demonstrating successful use of CDS to achieve meaningful clinical benefits for both patients and practitioners.
- The CDS intervention should be "bottom-up". A "top-down" approach might feel as though it is a management mandate rather than a consensus-based initiative.

- In order to understand the role of CDS role in enhancing practice workflows, the leaders of the implementation must be familiar with the operations of the practice. How one thinks the practice operates is not always the same as the reality. Leaders should test their understanding with others.
- It is particularly important that CDS becomes part of the quality improvement initiatives in a small practice. Make sure the clinical improvement goals and corresponding CDS interventions are reasonable and scaled to the resources that the practice has available. Starting with something manageable and useful is important to building confidence.
- A small practice is a business. Practices should incorporate the use of CDS into the business plan as a tool to assist in achieving financial, clinical, and operational goals. The language of the plan should reflect and encourage a “culture of change.”
- The documented plan should help to reinforce the shared utility of the CDS program to participants, helping them find value and clear ways to buy-in to its importance.
- It is inevitable that while one or several of the clinicians and managers will take an interest in CDS, others may be reluctant. Work with these more interested individuals and take mindful heed of concerns of those who are resistant.