

Roll Out Effective CDS Interventions

Focus on End-Users when Rolling Out CDS

The roll-out of a CDS intervention can have a profound impact on how it is received and used by clinicians and staff. Effective CDS roll-outs require appropriate education, training, and support to facilitate changes in workflow and office culture. Roll-out plans that are flexible and address the needs of the end-users are a key component of effective CDS implementations.

This how-to guide will help your organization:

- Understand the training and support necessary for CDS intervention(s) to be successful
- Create an appropriate roll-out plan for the particular intervention(s)
- Learn how to leverage internal members and outside experts to achieve the most effective roll-out

<i>Signs of an Effective CDS Roll-Out</i>
✓ All end-users were adequately trained for using the intervention
✓ End-users felt the trainings were well-timed in relation to the roll-out
✓ End-users did not feel overwhelmed by the introduction of CDS
✓ End-users know how to provide feedback and get support if needed
✓ Changes in workflow were smooth and improved care processes

Key Steps to Effectively Rolling out CDS

The following practical steps will help your organization achieve an effective roll-out of your CDS intervention(s). Within each step, tools and links to other resources are provided that can help guide your activities.

Step 1: Create a roll-out plan

Once the clinical goals are specified and CDS interventions selected, assessed, and tested, an organization must determine how to optimally implement the intervention(s). Organizations should consider the following questions as they develop a formal CDS roll-out plan.

<i>Questions to Consider for a Roll-out</i>
• What is our timeline for rolling out CDS interventions?
• What resources do we need to educate and train staff on this new intervention?
• How do we ensure all stakeholders communicate easily and effectively with one another about current/future issues with the CDS interventions?
• Are there plans or failsafe measures in the event the system fails during roll-out or thereafter during clinical encounters?
• Do we have measures to detect and warn about any early problems?
• How do we know when we have been successful?

Much of the material in this "How-To" guide was based on the collaborative development of and use of content in a 2011 book published by the Healthcare Information and Management Systems Society (HIMSS) entitled "Improving Outcomes with Clinical Decision Support: An Implementer's Guide, Second Edition."

A well-designed roll-out plan should include the dates for training, communication, and intervention release, and should specify the personnel and materials for each. The plan should also include metrics for a successful roll-out (e.g., end-user reports of satisfaction) and the period over which success will be assessed (e.g., one month, 3 months, 6 months, post roll-out). This timeline should factor in changes to clinician workflow and plan for increased support and training resources during clinician’s initial use of new interventions. The plan should be reviewed and agreed to by key organizational leadership with a stake in CDS implementation.



To-Do: Build some flexibility into the roll-out timeline to accommodate anticipated and unanticipated challenges to end-user acceptance (e.g., iterative revisions to new workflows).



Resources and Tools

Intervention Launch Plan (Resource #28) – This worksheet can be used to document your plans for CDS launch, including the communication strategy, assignment of responsibilities, plans for training and evaluation, and timetables for intervention maintenance. Documenting this information can be used to build a clear and shared picture launch plan, and it can also be used to communicate with stakeholders and solicit their input.

Step 2: Communicate roll-out plan to end-users and stakeholders

Communications about the upcoming CDS implementation should begin well before roll-out, be appropriately-scaled to the organization, and describe how staff activities will be affected. For example, large networks or hospitals may benefit from robust plans to ensure that all end-users receive the information in a clear and consistent manner. Small practices, on the other hand, may need a less robust communication plan, given both proximity to and involvement of all members. If the end-users are familiar with the language of CDS, a simple and short description of the expected changes should accompany the communication. These changes should describe the “from-to” of a current clinical task or process, that is, how a clinical process will change from how it is conducted today to how it will work with CDS. Specifying how roles and workflows will change is important to communicate clearly with CDS end-users. The workflow analyses discussed in Guide 3 and performed as part of preparing for CDS deployment should inform the communication of process changes before and after CDS.



To-Do: Communicate with end-users and describe the expected changes to workflow and other processes.



Resources and Tools

“From-To” Example (Resource # 27) – This table illustrates how work processes will change for each given role by implementing a new intervention. This type of table can be helpful when considering the effects of a particular intervention. It may also be used to communicate the before and after work processes of the end-users.

8 X 8 Communication Example (Resource #30) –This worksheet can serve as a means to ensure that implementation related communications (launch plan, intervention review, etc) to end-users and other stakeholders occur at the right time in the process

Step 3: Train end-users in the proper use of the intervention

There are many factors to consider when a new CDS intervention is implemented or activated. Depending on the size of your organization, there are many different methods of training that might be effective. From “train the trainer” approaches, that build initial competency for selected users who then support other users, to computer-based modules that provide on-demand tutorials of CDS when needed, training is an often neglected but important up-front step. Below are some basic considerations when planning for end-user training.

- Consider whether or not the vendor offers any resources (videos, literature) or support to roll-out this new functionality
- Think about the best channels to ensure that end-users know all the ins and outs of using the new intervention(s)
- Ensure that training is effective, but does not take too much time away from patient care
- Beware of CDS that requires excessive training, as a possible red flag that either the training or the CDS itself may be at risk for failure
- If a stakeholder within your organization is doing the training make sure they are appropriately trained themselves



To-Do: Develop a training plan that covers all important information and respects end-users’ time and patience.

Step 4: Roll-out CDS interventions with support structures in place

When CDS interventions are deployed, a support structure should exist for the end-users. These structures should include clear and fast ways for end-users to have their questions answered, to receive additional or supplemental training, and to report system challenges. They should also include means for documenting, triaging and addressing issues that arise with CDS interventions – especially around the critical launch period. The support should be proportional to the amount of change expected from implementation. A large hospital or health system will have IT staff and informaticists who can provide support on site. A small practice or community hospital may rely on vendors or consultants to assist in this support during the implementation.



To-Do: Ensure people and resources are in place to provide support during and after the implementation.



Small Practice/Outpatient Practice Considerations:

- Small practices should develop an explicit deployment plan for the CDS intervention, even if they are rolling out a fairly simple intervention to a limited number of end-users. Even in a one person office, this plan can serve to solidify commitments be used as a reference for when, how, and who the CDS will impact. Explicit documentation not only helps everyone in the practice participate in getting the intervention off the ground, but it also provides a more solid base for further refining intervention launches in subsequent rounds of CDS deployment.
- Make sure members of the practice understand the intervention details – why, when, how, who, where, etc. Fully leverage the communication channels – such as bulletin boards, formal meetings, informal gatherings, and the like to get out the word and make sure everyone is ‘on board.’
- Check with your EMR/EHR and CDS vendors to see what training resources they offer to support successful CDS roll-out. EHR and CDS vendors and RECs may be able to provide materials and other support to ensure that members of the practice know what to expect from the CDS, how workflows will change, and how to get the most out of the system. This is especially valuable in smaller practices where internal training resources can be limited.
- If a practice has multiple clinicians or locations, then an explicit plan for proactively and reactively gathering user feedback will be important.
- In some cases, concerns might be addressed with policy or workflow changes, but in many cases, tweaks to the intervention – perhaps requiring support from the vendor – will be needed. Talk to your vendor about the best way to handle ongoing technical needs.
- A successful CDS intervention requires that responsibility (and credit) for its success be shared. Nurses or office staff should be empowered to take on new and appropriate tasks that support the team’s use of CDS.
- It is important to anticipate and address ways an intervention may alter interactions with the patient. A script or list of key talking points can support clear patient-clinician communications about CDS.