Intervention Specification Form*

*This worksheet was adapted from 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 separate specification form should be completed for each intervention you plan to build. In the example below, the specifications most pertinent for validation and development have been divided into separate worksheets that illustrate with different interventions how the form might look for these two purposes. Depending on your style, the needs of your organization, and the nature of the specific intervention, you can either combine these two forms for each intervention or keep them as separate forms.

The first several rows of the validation version carry over data from the Selecting Interventions and Workflow Opportunities worksheet. This provides context for reviewers.

The performance improvement targets may have evolved in the vetting process up to this point, but now is the time when key stakeholders will sign off on delivering against these targets. It might not be practical to assign hard quantitative targets for every single intervention. Nonetheless, the more aggressive you are about defining and cultivating measurable benefits, the more likely you are to reap tangible and meaningful improvements from you efforts.

More than one intervention might be focused on achieving the target. These interdependencies can be noted in item 5 in the worksheet.

The remaining items on this validation form reflect the various specifications that result from your dialogue, analysis, and vetting of the issues and questions earlier in this chapter. The items on the developer's specification form that follows also come from these explorations.

Specification form for validation

Intervention Name: Flu shot (influenza vaccination) reminder system

1. **Clinical objective**: Increase the number of eligible patients who get flu shots in our outpatient practices.
2. **Desired action**: Identify eligible patients who have visits each day; put reminders to give flu shots on the standard printed schedule sheet.
3. **Baseline performance**: Currently less than half of all high-risk patients are receiving flu shots. In addition, less than 20% of the general population receives flu shots.

4. **Desired outcome**: Reduction in outpatient visits related to the flu and hospitalizations of high-risk patients.
5. **Associated interventions focused on objective**: Radio and television ads reminding high-risk patients to get flu shots; postcard reminders sent to all high-risk patients.
6. **Workflow step**: Printing and distribution of daily schedules with reminders attached, pre-visit check-in for patients.
7. **Specific CDS Intervention and pertinent CIS application(s):** Use the scheduling application along with clinical data warehouse to identify patients eligible for flu shot reminders; import list of eligible patients into application responsible for printing daily schedules.
8. **Approach**: Determine eligible patients who have visits today; put reminders to give flu shots on the standard printed schedule sheet.
9. **Clinical background**: Flu shots should be offered to eligible patients. In the past, mailings to patients have not been effective at increasing flu shot use. Many patients have not received flu shots even though they had a regular visit with their provider.
10. **Selection criteria**: Use CDC guidelines to determine which patients are eligible for flu shots and the duration of season in which to offer them.
11. **Exclusion criteria**: Patients whose health record data shows a flu shot for the current flu season, or who have an egg allergy.
12. **Target population for intervention:** Primary care physicians and nurses in outpatient practices.
13. **User interface**: Printed suggestion to offer flu shot, if appropriate, at bottom of schedule sheet.
14. **Monitoring**: Assess whether patients who meet eligibility criteria get printed reminders; monitor proportion of patients getting flu shots.
15. **Evaluation**: Analyze proportion of eligible patients in practice who receive flu shots.
16. **Primary stakeholders**: Directors of ambulatory practices.
17. **Clinical champion for this project**: Dr. Phyllis Smith.
18. **Urgency / required delivery time**: Before September 1.
19. **Whose jobs do you expect to be affected by this project?** Practice managers or secretaries who print schedules; providers; nurses or assistants who administer flu shots.
20. **What are possible adverse consequences of implementing this project?** What if the reminder is given on a patient who had a flu shot already (elsewhere, or here but after reminder was queued or printed)? Will implement mechanisms to prevent extra flu shots.

Specification form for developers

CDS Intervention Name: Heparin in post-op orders

Description	When post-op order sets are displayed, an item to order heparin (for thrombosis prophylaxis) will always be included
CIS application affected	CPOE
Intervention type	Order set modification
Workflow step	Ordering (at post-op time)
Specifically triggered by	All post-op order sets *except*: patients already on heparin, enoxaparin, warfarin
Presentation type	Order set item
What (information presented)	Order heparin 5000 units subcutaneously twice a day
Alerting	None
Who (user)	Ordering clinician
Action items	Checkbox allows user to order heparin
Feedback channels and plan	Contact information for responsible department already exists on order set

The collection of these completed intervention specification forms documents the portfolio of planned/launched interventions within your organization's CDS program. It reflects the high level CDS and clinical goals addressed by the program, and the corresponding clinical objectives that the interventions are designed to address.

Step 2: Validate the proposed CDS interventions with appropriate stakeholders and obtain necessary approvals.

Hopefully you will have had extensive input from and dialogue with all pertinent stakeholders at each step so far in this book (e.g., in defining objectives and mapping out interventions and their details). Now is the time to confirm that the interventions you have specified are ready (and approved) to be built. Figures 1-2 and 1-3, pages xx and xx, respectively, provide a framework for the roles and interactions pertinent to this validation and approval process. If you have not done so already, it might be useful to create a version of these figures now to reflect the specific CDS-related roles and their interplay in your organization. It will come in handy for the remaining tasks in this book as well.

In this round of interactions, you will be ensuring that your proposed CDS interventions, both individually and collectively, are acceptable to key stakeholders and recipients, fit into workflow, are likely to achieve their desired outcome, and will not adversely affect other healthcare processes. In some organizations and circumstances (e.g., high-stakes interventions), it might be useful to document formal sign-off to proceed by appropriate leadership.