Clinical Information System (CIS) Inventory*

*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."

Conduct and document an inventory of your organization's CIS that could play a role in delivering CDS interventions. For each system, note its pertinent CDS capabilities, coding systems and current usage.

The information presented should help you survey the CIS applications in your organization to determine what information technology infrastructure is available to help you achieve your goals and objectives. Think broadly about what applications might be pertinent. Key executives or staff in your IT department can be a good starting point for gathering the information about the breadth and details of pertinent systems.

Include in your survey all the different clinical content and knowledge resources that are available in your organization to support clinical care and decision making. This might include content that has been developed locally, such as clinical protocols and guidelines, or content that is licensed from content vendors, such as clinical reference databases or knowledge components integrated into the CIS. While in most cases the information will be in electronic format and delivered via electronic clinical information systems, remember that paper-based CDS interventions (e.g., relevant data summaries, order sets) can be effective and may have a role in your program.

Your organization's clinical knowledge resources provide an initial content base for achieving the clinical goals within the CDS program. Some of these assets might be stand-alone reference databases, while others might be tightly integrated into specific clinical systems (for example, drug interaction detection within CPOE). Additional content (developed locally, shared with other institutions, or acquired from CIS or content vendors) may be required to optimally address the CDS program goals. The **knowledge asset** survey provides a foundation for making this assessment in Chapter 3.

In the first column of this worksheet, list the name and system type for all the CIS components that you have identified in your survey of IS pertinent to your CDS efforts (see discussion in chapter). Consider subdividing the list by IS type. If there are many available systems, you might initially focus on those that appear most relevant and powerful for achieving your priority CDS objectives. Keep in mind that the more comprehensively you outline your infrastructure, the easier it will be to identify potential CDS intervention options that are available in your environment.

In the second column, begin noting which of the CDS intervention types that each system can deliver or facilitate. You might need to refine this section as you get into more intervention development details

Coded data are important in certain CDS interventions. In the third column, document the information types the system handles and any coding schemes used. Again, pay particular

attention to key items, such as laboratory test names, drug names, and patients' clinical problems.

The fourth column is for documenting the system user types and how well the system is penetrated into that user population. The notes column can be used to document other key system features, such as any knowledge bases it contains and its interoperability with other key systems.

CIS Inventory

System Name / Type	CDS-related Functionality	Information Types (Coding System)	System Users and Usage	Notes
Ordering				
See clinical records, next				
Clinical records and patient management				
Better Care Inc./Inpatient EMR and CPOE	• Order sets • Documentation templates • Relevant data display • Alerts	• Diagnosis information (ICD-10); • Order information (CPT); • Lab results (LOINC); • Imaging results (homegrown scheme)	Nurses, doctors, and pharmacists; 50% of physicians are currently using	Uses drug knowledge base from XYZ Corp for drug interaction and allergy alerting
Outpatient Computer Corp.	• Order sets • Documentation templates • Relevant data display • Alerts	• Visit diagnosis (ICD-10) • Problem lists (ICD-10) • Medication lists (National Drug Code [NDC]) • Visit notes (Text) •	25% of outpatient clinics, mostly primary care	Not yet exchanging data well with inpatient system
Given Meds Corp.	• Alerts • Documentation templates • Relevant data display	• Date/time for medication administration • Medications (NDC) • Dose administered	100% of nurses at two hospitals	Linked to handheld devices
<u>**Departmental data management**</u>				
Get your labs inc.	• Relevant data display • Alerts	• Lab results (LOINC) • Anatomic pathology results (Text)	Doctors, nurses, pharmacists all use it frequently	
<u>**Clinical content**</u>				
Know-it-all Reference	• Disease and drug reference – infobuttons capability	• Disease management info (ICD-9) • Drug reference info (NDC)	Doctors, nurses, pharmacists all use it frequently	Linked to handheld devices