



The Office of the National Coordinator for
Health Information Technology



Care Delivery Improvement/ CDS Toolkit

Overview for the Meaningful Use Community
of Practice

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Today's Agenda

- Session Objectives
- Project Background
- Toolkit Overview
- REC Next Steps
- Q&A



Session Objectives

- Understand Toolkit purpose and contents
- Appreciate use by RECs, providers, vendors
- Consider using toolkit, and its sustainability implications



“CDS4MU”: Tools for Quality Improvement (QI)

Clinical Decision Support for Meaningful Use (CDS4MU)

- **Background:** ONC contract, 9/12-9/13
- **Goal:** Create practical, useful tools and resources
- **Deliverable:** Care Delivery Improvement/CDS Toolkit
 - Will be posted on HealthIT.gov



Help RECs/providers/vendors/others drive CDS-enabled QI

- Support transition to MU Stage 2 and beyond
- Help make Meaningful Use *meaningful*
- Support REC sustainability efforts



CDS Definition from MU Final Rule:

*‘HIT functionality that builds on EHR foundation to provide people with information to enhance health and health care.’**

- Many ways to “provide information” – not just rules/alerts
- How do providers do it today? Can it be done better?



* Paraphrase from: [Eligible Professional Meaningful Use Core Measures, Measure 11 of 14](#)

CDS 5 Rights: Framework for “Getting CDS Right”

- To improve targeted healthcare decisions/outcomes, information interventions (CDS) must provide:
 - the right information
 - to the right people
 - via the right channels
 - in the right formats
 - at the right times
- Optimize information flow: what, who, where, when, how

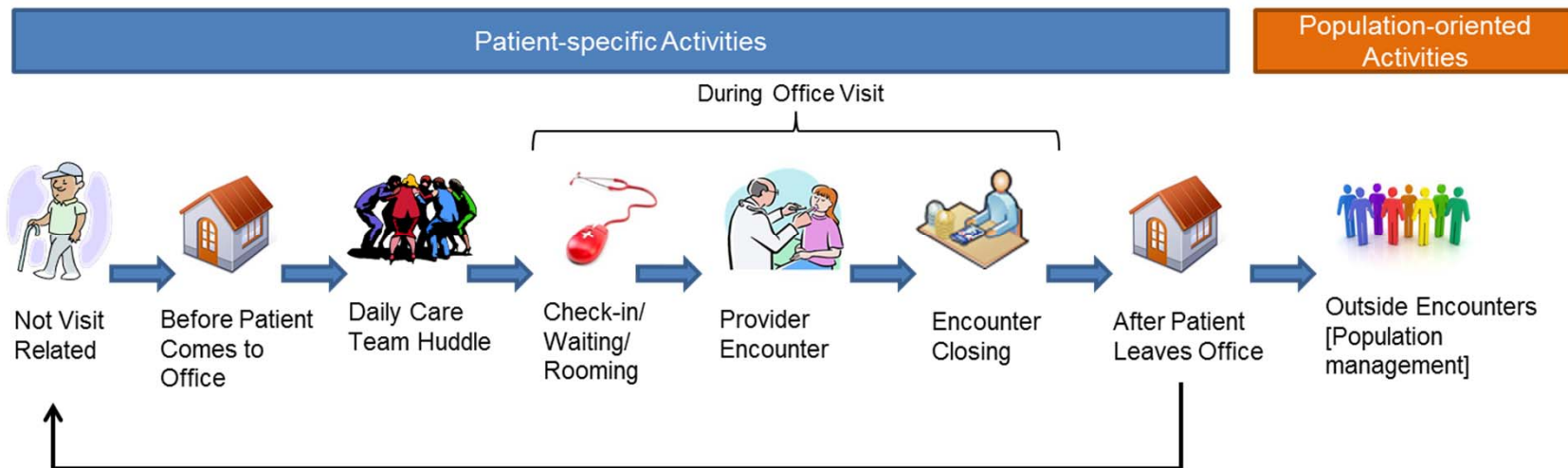


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- Ambulatory and Inpatient CDS/QI worksheets
 - Simplified and detailed versions
 - Tutorial on using detailed worksheets
 - Samples
- CDS-enabled QI Case Studies
- Training – recorded webinars
- Related reference material

The **CDS/QI Worksheets** help users:

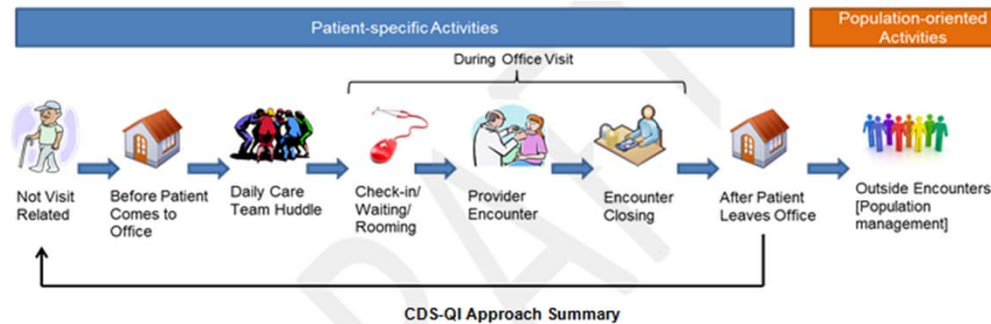
- Understand current information/workflows
- Apply structured approach, improve communications
- Consider each care flow step/CDS opportunity
- Brainstorm and implement enhancements



Ambulatory CDS/QI Worksheet (Simplified Version)


Simplified worksheet merges care flow steps; CDS 5 Rights are implicit

Target	
Current performance on target	



	Not Visit Related	Before Patient Comes to Office	Daily Care Team Huddle	Check-in/Waiting/Rooming	Provider Encounter	Encounter Closing	After Patient Leaves Office	Outside Encounters [Population management]
Current Information flow								
Enhanced Information Flow								

Section 1: Activities that occur with specific patients

	Not Visit Related	Description: Not related to a patient's visit to the office/clinic or just before or after that visit.
	Current Information flow	○
	Enhanced Information Flow	○

These workflow activities occur in the office

Inpatient CDS/QI Worksheet (Simplified Version)

Inpatient simplified worksheet is similar; care flow steps are pertinent to hospital

Target	
Current performance on target	



CDS-QI Approach Summary

	Pre-Hospitalization/Not Admission-related	Emergency Department/Registration	History/Assessment/Documentation	Care Planning/Patient Education/Shared Decisions	Ordering	Care Plan Execution/Monitoring	Discharge/Transfer	Post-Discharge	Outside Encounters [Population management]
Current Information flow									
Enhanced Information Flow									

Section 1: Activities that occur with specific patients

	Pre-Hospitalization/Not Admission-related	Description: Not related to a patient's particular hospitalization, or the period just before or after a hospital stay.
	Current Information flow	o
	Enhanced Information Flow	o

Ambulatory CDS/QI Worksheet (Detailed Version)

Full worksheet version helps providers to:

- List care flow steps in detail
- Cover optimal, current and enhanced states
- Make CDS 5 Rights explicit

Clinical Decision Support Configuration Template (Ambulatory, blank)

		Clinical Decision Support Configuration Template (Ambulatory, blank)											
		Target =											
		Current Performance on Target =											
		Optimal State (sample activities to optimize performance)			Current State (Your current CDS/QI configuration)					Enhanced State (improvements you could implement)			
Decision Support Opportunity	Care Activities	Examples of Care Activities	Notes	CDS 5 Rights					Prerequisites for setting up current state	Proposed Enhancements (locally or by EHR vendor)	Notes		
				Who? (People)	What? (Information)	Where? (Channels)	How? (Formats)	When? (Workflow)					
Patient-specific Activities	Not Visit-related												
	Before Patient Comes to Office												
	During Office Visit	Check-in											
		Waiting											
		Rooming											
		Provider Encounter											
		Encounter Closing											
	After Patient Leaves Office												
Population Management Activities	Outside Patient-specific Encounters												

Inpatient CDS/QI Worksheet (Detailed Version)

Inpatient detailed worksheet is similar; care flow steps are pertinent to hospital

		Optimal State (sample activities to optimize performance)			Current State (Your current CDS/QI configuration)					Enhanced State (improvements you could implement)			
Decision Support Opportunity		Care Activities	Examples of Care Activities	Notes	CDS 5 Rights					Notes	Proposed Enhancements (locally or by EHR vendor)	Notes	
					Who? (people)	What? (information)	Where? (channels)	How? (Formats)	When? (Workflow)				
Patient-specific Activities	Pre-hospitalization												
	Emergency Department												
	During Hospitalization	Registration/Intake											
		History/Assessment											
		Documentation											
		Care planning/Patient Education/Shared Decisions											
		Ordering											
		Care Plan Execution (e.g. Testing, Med Dispensing/Admin)											
		Results/Monitoring/New Events											
	Discharge/Transfer												
Post-discharge													
Population-oriented Activities	Outside Patient-specific Encounters												

Example Worksheet Entries for BP Control Target

Clinical Decision Support Configuration Template (Ambulatory, blank)

Target =		Current Performance on Target =										
Decision Support Opportunity	Optimal State (sample activities to optimize performance)			Current State (Your current CDS/QI configuration)					Enhanced State (improvements you could implement)			
	Care Activities	Examples of Care Activities	Notes	CDS 5 Rights					Prerequisites for setting up current state	Proposed Enhancements (locally or by EHR vendor)	Notes	
				Who? (People)	What? (Information)	Where? (Channels)	How? (Formats)	When? (Workflow)				
Patient-specific Activities	Not Visit-related											
	Before Patient Comes to Office											
	Check-in											
	Waiting											
	Rooming											
	Provider Encounter											
Population & Subpopulations	Encounter Closing											
	After Patient Leaves Office											
	Outside Patient-specific Encounters											

Current State (Your Current CDS/QI Configuration)					
CDS 5 Rights					Notes
Who? (People)	What? (Information)	Where? (Channels)	How? (Formats)	When? (Workflow)	
Patient/Provider	Patient instruction sheet on reducing dietary sodium, sample meal menus and recipies	Paper stored in filing cabinets and brochure racks on the walls		During the patient/provider encounter	Select, manage and maintain paper-based tools (e.g., obtain and stock brochures) as well as electronic tools (e.g., vet/obtain material, integrate into EHR)

Example of Current State row content: Patient Education during Provider Encounter

Example Worksheet Entries (cont.)

Clinical Decision Support Configuration Template (Ambulatory, blank)

Target =		Current Performance on Target =											
Optimal State (sample activities to optimize performance)				Current State (Your current CDS/QI configuration)						Enhanced State (improvements you could implement)			
Decision Support Opportunity	Care Activities	Examples of Care Activities	Notes	CDS 5 Rights					Prerequisites for setting up current state	Proposed Enhancements (locally or by EHR vendor)	Notes		
				Who? (People)	What? (Information)	Where? (Channels)	How? (Formats)	When? (Workflow)					
Patient-specific Activities	Not Visit-related												
	Before Patient Comes to Office												
	During Office Visit	Check-in											
		Waiting											
		Rooming											
		Provider Encounter											
	Encounter Closing												
After Patient Leaves Office													
Population Management Activities	Outside Patient-specific Encounters												

Example of Enhanced State row content:
Patient Education during Provider Encounter

Enhanced State (improvements you could implement)	
Proposed Enhancements (locally or by EHR vendor)	Notes
Try to manage this information via EHR to optimize workflow and content maintenance. Consider involving non-provider clinical staff in routine patient education activities and include more engaging multimedia education materials (e.g., illustrating how modifiable cardiovascular risks lead to heart attacks) to help patients understand and address these factors.	Contact vendor and research which products work with EHR, how much they cost, how are they updated, etc.

CDS/QI Detailed Worksheet: Selection Functionality

Start Page includes a tool to focus on one row/column section at a time.

View: **One Section**

View by: **Care Flow Steps (view by rows)**

Select Section: **Patient-specific Activities**

- Not Admission-related
- Pre-hospitalization
- Emergency Department
- During Hospitalization
 - Registration/Intake
 - History/Assessment
 - Documentation
 - Care Planning/Patient Edu/Shared Decisions

Tutorial for CDS/QI Detailed Worksheet

Interactive tutorial guides users on how to fill out worksheet.



Welcome!

Hello, my name is Pam. I'm going to share a tool and a way of thinking that will help you to improve care at your clinic.

This new approach will help you to understand your current practice's information flow and workflow, and to identify enhancements that provide better results for your patients, staff and providers.

Previous Slide

Next slide

The screenshot shows a presentation slide with a teal header containing the word "Welcome!". Below the header, on the left, is a light blue text box with two paragraphs of text. To the right of the text box is a full-body photograph of a woman named Pam, who is wearing a white lab coat over a yellow top and tan pants. At the bottom of the slide, there are two teal buttons labeled "Previous Slide" and "Next slide". Below these buttons is a standard presentation navigation bar with icons for back, forward, search, and other controls.

CDS/QI strategy details for practices with exemplary results

Title: Quality Improvement Case Study: Improving Blood Pressure Control in a 3-Provider Primary Care Practice

EXECUTIVE SUMMARY

Organization

Ellsworth Medical Clinic is a family medicine practice in Wisconsin with 2 physicians and 1 physician assistant, and additional support staff of 5.4 FTE including lab tech and nurse supervisor. It is part of a network of 22 providers working across 3 sites under the umbrella organization, River Falls-Ellsworth-Spring Valley Medical Clinics.

Target

- Achieve better blood pressure (BP) control in all patients with BP greater than 140/90.

Quality Improvement Strategy Highlights

- The BP improvement project spanned all 3 clinic sites; details in this case study focus primarily on the Ellsworth site.
- Practice leaders knew the importance of good BP control but were stuck at what they considered good - but not great - BP control for their patients based on data they were reporting to a state agency. The organizational culture and aspiration is to provide great care.
- The quality improvement (QI) effort focused on BP control began in 2007, and was significantly enhanced through capabilities available with the implementation of a certified electronic health record (EHR) in 2010. Key EHR-related functions for the BP QI effort include the ability to efficiently examine key clinical data for all their patients - such as office blood pressures with readings above the target threshold highlighted - using a homegrown, EHR-driven registry.

Other Content: Recorded Training

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- Presented as HITRC webinars
- Can used for REC staff training

The Office of the National Coordinator for Health Information Technology 

Weekly Webinar Series

Overcoming Meaningful Use Barriers: Solutions from the Field

Making Clinical Decision Support (CDS) Real & Beneficial: An Approach for Helping You Address Improvement Imperatives for Meaningful Use Stage 2 and Beyond

May 10, 2013

Putting the I in HealthIT 
www.HealthIT.gov

The Office of the National Coordinator for Health Information Technology 

Weekly Webinar Series

Overcoming Meaningful Use Barriers: Solutions from the Field

Putting Clinical Decision Support (CDS)-enabled Quality Improvement (QI) into Action - Part 2

June 28, 2013

Putting the I in HealthIT 
www.HealthIT.gov

Unit 1: CDS/QI Foundations

- Defines CDS and basic approaches such as CDS 5 Rights
- Outlines interrelationships between Meaningful Use, CDS, and QI

Unit 2: Improving Targeted Measures

- Implementing CDS interventions to improve specific Quality Measures

Unit 3: Case Studies and Additional Resources



Worksheet “Alpha Testing”

- RECs
 - Presented to Learning and Action Network (REACH)
 - Used by a Federally Qualified Health Center (FQHC)
 - Other presentations/implementation discussions
 - Arizona REC staff and provider clients
 - North Carolina Area Health Education Center
 - Washington & Idaho REC/QIO (WIREC)
 - Project’s REC Advisory Panel
- Joint engagement of vendors, clients, RECs
 - Success EHS
 - eClinicalWorks

- Intensive input, review, use by RECs/others
 - Many RECs have QI background, e.g. QIO
- Sustainability ‘under development’, should play to strengths
- QI is provider need, REC business opportunity
- Meet practices where they are
 - e.g., PCMH, MU, PQRS, Payer programs
 - Many not ready for QI; some are
- CDS4MU tools are useful

Where Can You Go From Here?

- Review Webinars with your REC team
 - Implementation staff, business owners
 - Understand staff/client CDS/QI needs, opportunities
- Review other Toolkit components
 - Case examples, worksheets, related training/tools/reference
- Do Provider Outreach
 - Webinar to introduce concepts (use this deck or others)
 - Prioritize providers ready for CDS/QI conversations/support
 - Help them apply CDS/QI worksheet, case examples, other tools
 - Support PDSA cycles for measurable improvements

Contact

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- For further information or discussion:
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