CDS (Clinical Decision Support) Connect Work Group
Meeting Summary
May 21, 2020

3:00 - 4:00 pm ET

Attendees: 48 people including 3 phone dial-ins (51 total)

Organization	Attendee Names
AHRQ Members	Steve Bernstein, Roland Gamache ,Ed Lomotan, , Mario Terán (4)
Work Group (WG) Members	Barry Blumenfeld, Edna Boone, Joe Bormel, Richard Boyce, Daryl Chertcoff, Chris d'Autremont, Priyanka Desai, Rina Dhopeshwarkar, Maggie Dorr, Michael Dorsh, Anthony Gerardi, Alex Gerwer, Lisa Lang, Danny van Leeuwen, Kathryn Lesh, Sandra Zelman Lewis (SZL), Preston Lee, Dandan Liu, Bill Lober, Jacqueline Meadows-Stokes, Rob McClure (RM), Maria Michaels (MM), Ryan Mullins, Mustafa Ozkaynak, Nikhil Patel, Bryn Rhodes (BR), Joshua Richardson, , Marc Sainvil, Syed Sameemuddin, Andrey Soares, Matt Storer, Linda Wedemeyer, , brysan (username) (33) 3 dial-ins
MITRE CDS Connect Members	John Boiney, Noranda Brown, Eileen Chang, Lacy Fabian, Susan Haas, Michelle Lenox, Dylan Mahalingam, Chris Moesel, David Winters, Tom Read, Bruce Shirk (11)

MEETING OBJECTIVES

- Presentation and discussion by Lacy Fabian, PhD, (MITRE): *CDS Artifact Review and Update across CDS Connect*
- Share new features and resources available for CDS Connect
- Discuss topics of interest to members relating to opportunities for CDS Connect/HIMMS
- Closing

ACTION ITEMS

- Reach out to Lacy Fabian, MITRE CDS Connect Project Lead, at LFabian@mitre.org to either provide additional input on presentation topics, or alternatively, indicate an interest in shorter one-off meeting to discuss input (All WG members)
    - One-off scheduled June 4th to discuss CPG-on-FHIR implementation and possible inclusion of subcategories. (MITRE, BR, MM)
    - Consider holding additional discussions on unique behavior of value sets updates and their implications for update and review of repository artifacts (RM)

- Share with MITRE team the list of reasons that triggered an update within their own CDS Artifact review process (SZL)

MEETING SUMMARY

Following roll call and review of agenda, a presentation and subsequent discussion was led by Lacy Fabian, Project Lead for CDS Connect at MITRE, on the planned approach to the CDS Artifact review and update process. The goal of the presentation was to inform work group members of planned changes and gather input and feedback on specific aspects of this process from the CDS community.

CDS Artifact Review and Update Across CDS Connect

Dr. Fabian (MITRE) presented '*CDS Artifact Review and Update Across CDS Connect*' that outlined the current and planned approach to the CDS Artifact review and update process, which the CDS Connect project team is considering for roll-out over this summer. Input was requested from the Work Group on several specific topics including:

- Frequency of review and update
- Visual design of alerts on repository CDS Artifacts
- Time points at which to send alerts to an Author as a CDS Artifact approaches non-compliance
- Flagging CDS Artifact to reward compliance
- Use of a combination of CPG-on-FHIR elements Status and Experimental (with new sub-categories) to describe CDS Artifact status
- Expectations to be set in the terms and conditions regarding evidence, metadata, clinical concept representation and 508 Accessibility

Dr. Fabian described how a combination of existing CPG-on-FHIR elements, with proposed new sub-categories, supports both the immediate work of the review and update process, as well as sets the stage for more engagement from the greater CDS community. Dr. Fabian explained how Status and Experimental metadata fields work together to create different categories of CDS Artifacts, illustrating how the new sub-categories allow differentiating and describing artifacts intended for a clinical setting (Experimental = no) from those authored for other usages like in research settings (Experimental = yes). This differentiation impacts if and how regularly a CDS Artifact is reviewed and updated, and in turn, what level of effort might be expected of repository Authors. It also provides useful information for the CDS community as they consider how best to use the CDS Artifact within their own work.

The review and update process requires inserting language in the terms and conditions to set expectations for Authors during the account creation process. It was shown, that for eligible CDS Artifacts (i.e., CDS Artifacts with the intended target of clinical setting (Experimental = no) and a (Status = active), achieving a 'reviewed'

status requires evaluation of the evidence, metadata, and clinical concept representation, with an update to documentation, as needed, while still maintaining 508 accessibility.

Discussion

Frequency of review and update

- WG members advised that review cycle be dependent on the type of CDS Artifact and take a tiered approach. Factors suggested in support of a shorter time frame were if the CDS Artifact is used in clinical practice and if the rate of research and new evidence on the given topic is high (e.g., COVID-19 vs. diabetes management or rare diseases).
- WG member shared experience that even with National Guidelines Clearinghouse having a 5-year review process, there was a more frequent cycle undertaken by authors to stay current. They described a process where content reviewers evaluated articles, which depending on findings, could lead to methodologists and others to undertake a more extensive review. Reviewers were independent of authors and received no compensation.
- Agreement for an annual review on the "floor" of the process, but that the "ceilings" should be tiered.
    - Suggestion was for "ceiling" of 2 years for urgent topics, 3 years for mid-level, and 4 years for topics not expected to change.
- LF restated for agreement that for a CDS Artifact with no evidence changes and no new research publications, the expectation to require an Author to affirm to these is a reasonable expectation.
    - WG member suggested that it is not enough for Authors to evaluate current guidelines when evaluating clinical currency of the CDS Artifact. Authors should re-run published search strategies to see how many new articles may have come out in the past 6 month to 1 year timeframe.

WG raised point that the most important updates are those that might occur on unforeseen schedule such as drugs with unintended side effect that is not withdrawn from market. The updates may be needed in a timely manner.

Visual design of alerts

- Visual design of alerts for CDS Artifacts that were not reviewed within a specified timeframe was well received and did not generate much discussion, except for comments that out-of-compliance CDS Artifacts could be made even more salient (e.g., make title of CDS Artifact red) within current designs.

Time points for alerts

- WG members had no further input on alert timings as presented (6 months, 1 month and when status changes). Suggestion was made to consider aggregating the alert for organizations that may have more than 1 CDS Artifact, perhaps on a dashboard.

- WG members asked how value sets would be addressed. MITRE project team clarified that Repository does not host value sets as standalone artifacts and so the value set would be reviewed on the same schedule as the CDS Artifacts that use them. Points raised by WG members included indicators on artifacts which use intentional value sets, backward notification to CDS Authors when value sets are updated, how the use of intentional value sets could streamline the update and review process, and the unique properties of value sets that could create challenge for a Repository review and update

process (e.g., depending on value set definition, may automatically update, leading to the set updating "underneath you").
    - At conclusion of value set topic, the suggestion to have a separate side bar conversation on this topic was posed by MITRE team, if working group members would be interested.

Flagging compliance

- Flagging content that complies (positive flagging) did not raise additional discussion, but WG members were encouraged to reach out to the MITRE project team if they had thoughts.

CPG-on-FHIR elements Status and Experimental (with new sub-categories) to describe artifact status

- WG members suggested other status/subcategories on CDS Artifact. These included if the CDS Artifact is currently being updated (i.e., is the CDS Artifact in the process of being updated) and frequency of update for that type of CDS Artifact.
- WG member expressed liking the ability to provide information about usage (e.g. intent) and described how they are building in this concept of target use and supporting provenance into their own tools. WG offered to join discussions on layering capabilities (i.e., target use) on knowledge artifacts.

Terms and Conditions

- WG members were invited to share feedback after the meeting on what they believe is necessary for a CDS artifact to receive a qualified "review'.
- WG member suggested to reference Patient Centered-Clinical Decision Support Learning Network information on trust, which the MITRE project team commented was a resource the team considered as they designed and prioritized features for CDS Connect.
- Suggestion on public comments and/or external review of a CDS Artifact was raised. MITRE project team explained that this has been talked about previously, and that operationalizing for CDS comes with challenges related to wanting to ensuring quality of comments. The idea is a good candidate for piloting.
- Suggestion was made on delegating author role to another author, or to an open source user community for continued review and update.
    - Related suggestion was the ability to "fork" a CDS Artifact and modify for one's own modification.

What's New with CDS Connect

The MITRE team shared information about updates and new features for the prototype tools, repository, authoring tool and artifacts.

Announcements / Other Questions

Due to time, there were no announcements or other questions, besides a reminder to reach out the MITRE project team if one has additional input to share on the update and review process.

Closing