CDS Connect Work Group
Meeting Summary
June 28, 2018
3:00-4:30 PM EST

Attendees

AHRQ Sponsors	Shafa Al-Showk
Work Group Members	Barry Blumenfeld, Beatriz Rocha, Bijal Shah, Chris Shanahan, Maria Michaels, Daniel Seltzer, David Foley, Diane Montella, Dwayne Hoelscher, Edna Boone, Frank Sonnenberg, Jody Platt, John Kefalas, Josh Richardson, Julia Skapik, Kavitha Raj, Kevin Larsen, Linn Brandt, Marc Sainvil, Matt Pfeffer, Michelle Sotak, Noam Arzt, Randolph Barrows, Preston Lee, Ryan Mullins
MITRE CDS Connect Project Members	Ginny Meadows, Chris Moesel, Julia Afeltra, Dylan Mahalingam, Noranda Brown

The MITRE Corporation operates the Centers for Medicare & Medicaid Services (CMS) Alliance to Modernize Healthcare (CAMH), a federally funded research and development center (FFRDC) dedicated to strengthening the nation's health care system. MITRE operates CAMH in partnership with CMS and the Department of Health and Human Services.

Agenda

- Welcome and brief review of meeting objectives and the agenda
- Discussion of Future CDS Connect Clinical Domains
- Discussion of Future CDS Connect Authoring Tool and Repository Efforts
- Pilot Update
- Trust Framework Workgroup (TFWG) Draft Results: Promoting Trust in CDS Connect Artifacts
- Closing

Action Items

a. Distribute the presentation from TFWG and request further comments (Completed 6/29/2018)

Meeting Summary

Welcome

MITRE started the meeting by welcoming participants and reviewing the names of work group members participating in the call. Ginny Meadows then reviewed the agenda and facilitated the first part of the discussion. Maria Michaels joined the work group meeting later, and facilitated the rest of the discussion.

Overall:

The meeting included a discussion of potential future clinical decision support (CDS) clinical domains, as well as a discussion on future planning for the CDS Connect Authoring Tool (AT) and Repository. In addition, updates on the pilot status were provided. The Trust Framework Work Group then presented the draft results of the work on promoting trust in CDS Connect artifacts. During each presentation, work group member ideas, suggestions and concerns were encouraged.

Future Planning for CDS Connect Clinical Domains, Ginny Meadows (MITRE)

Ginny Meadows reviewed considerations for potential clinical domains for the CDS Connect future work. Work group feedback was solicited regarding the benefits and challenges for developing CDS in the following domains:

a. **Opioids:** Expand the current work on pain management and opioids to provide CDS that is more actionable, or possibly focus on another aspect such as substance use disorder, or on one specific guideline included in the Centers for Disease Control and Prevention (CDC) guidelines.
b. **Depression and or suicide prevention:** Reflects a national priority due to recent high-visibility suicides. The United States Preventive Services Task Force (USPSTF) includes recommendations for depression screening.
c. **Acute care options: sepsis, falls risk, stroke:** Acute care represents a different use case and care setting, with potential tie-in with quality measures.
d. **Geriatrics: fall prevention, polypharmacy, high risk meds**: High impact decision support for a well-defined target population, useful across varied care settings including long term care (LTC), skilled nursing facilities (SNF), and Home Health.
e. **Diabetes, hypertension, immunizations:** Potential to touch a large number of patients with evidence-based guidelines.
f. **Other USPSTF Recommendations:** Promotion of prevention of disease using evidence-based guidelines in many areas.
g. **Hepatitis B or C**: Nationally prominent diseases, CDC protocols exist.
h. **Childhood obesity**: Nationally prominent problem.

After the initial discussion of clinical domains, the work group members had additional comments and suggestions:

a. A work group member commented that it would be beneficial to tie into quality measures for acute care, potentially cross-referencing the Centers for Medicare & Medicaid (CMS) Meaningful Measures list.

b. Another member commented that they had done a lot of work in the depression, suicide and mental health area, and have materials they plan to contribute to the Repository.
c. A work group member commented that they had created CDS for Hepatitis C screening, and found the logic fairly complicated. They would be interested in contributing some of their work.
    i. They have also created CDS to screen for lung cancer in prior and current smokers.
d. A work group member mentioned that although vendors have done some work in these areas, they felt it was not detailed so anything we selected could make an impact.
    i. They have done CDS work on antimicrobial stewardship and restraints use.
e. A work group member agreed that there is much demand for Opioid-related CDS.
f. One work group member thought that oncology-related CDS would be beneficial.
g. A work group member asked if we were referring to inpatient or outpatient settings? Ginny responded that it could be either.
    i. The member recommended consideration of management of alcohol and opioid withdrawal for both inpatient and outpatients, as well as urine toxicity screen interpretation.
h. A work group member mentioned acute kidney injury and vaccinations as two other CDS areas, and agreed that urine toxicity screen interpretation would be useful to clinicians.
i. Another work group member also agreed that urine toxicity screen interpretation was a potential area of focus as most outpatient facilities have limited understanding of this topic.
j. A work group member commented that many of the domains mentioned might be amenable to integration of patient-facing decision support and/or patient generated health information to inform a CDS tool, both areas of interest to CMS.

Future Planning for CDS Connect Authoring Tool and Repository, Chris Moesel (MITRE)

Chris Moesel reviewed options for both CDS Connect Repository and Authoring Tool (AT) updates. The CDS Connect Repository potential FY2019 updates included:

a. Expanded artifact import application programming interface (API) integration with the CDS Connect Authoring Tool
b. User Interface (UI) updates
c. Facilitate development and deployment
d. Behind the scenes automation and DevOps updates

Chris invited comments from the work group:

a. A work group member recommended prioritizing API over UI Changes, as the API is important for growing the platform and getting more users, as well as opening it to use with outside tools.
b. A work group member recommended connecting the CDS Authoring Tool with the quality measure authoring tool (MAT).
c. A work group member asked about versioning. Chris responded that revision control is included in the Repository for authors, but not exposed to end users (consumers).
    i. The work group member asked if there were collaborative features for the AT? Chris responded that collaborative features were not available yet.

Chris Moesel then reviewed the CDS Connect AT potential FY2019 updates:

a. Clinical Quality Language (CQL) authoring for other versions of Fast Healthcare Interoperability Resources (FHIR)

b. Integration with the CDS Connect Repository
c. Additional user-facing testing capabilities
d. Comments
e. Additional terminology sources for value set and code searches
f. CQL 1.2 error handling
g. Additional CQL operators (math, timing, etc.)
h. Advanced query construction
i. Import and reference external CQL libraries
j. Direct CQL entry
k. Cross-artifact re-usable elements
l. Additional CDS types
m. Revision control

Chris invited comments from the work group. One member asked if there was consideration regarding reusing elements across artifacts, and Chris replied that was included. There was no additional time for further discussion, and Chris invited work group members to contact him by email (cmoesel@mitre.org).

Status of Pilot, Ginny Meadows (MITRE)

Ginny Meadows provided an update on pilot activities.

a. Completed activities reported in the May pilot update were reviewed, along with those activated that have been completed this month. June completed activities include:
    i. Tested the Substitutable Medical Apps, Reusable Technology (SMART) on FHIR app at OCHIN
    ii. Finalized pilot site training materials
    iii. Trained the pilot site clinicians (June 14, 2018).
    iv. "Go-live" at the pilot site (June 20, 2018).
b. The upcoming activities include:
    i. Running weekly analytics and troubleshooting, if needed.
    ii. Finalize pilot focus group questions.
    iii. Planning for the pilot focus group.

Draft Results: Promoting Trust in CDS Connect Artifacts, Joshua Richardson, Jody Platt Patient Centered Outcomes Research CDS-Learning Network (PCOR CDS-LN)

Josh Richardson and Jody Platt provided an overview of the draft results from the work done by the Trust Framework Work Group (TFWG):

a. Josh reviewed the TFWG charge: to consider issues of trust for knowledge artifacts and produce a framework that recommends strategies for promoting trust in knowledge artifacts in four areas: legal, marketplace, policy and governance. Specific deliverables include: identifying use cases as well as barriers to the use cases where trust is evaluated and expected regarding knowledge artifacts for patient centered CDS (PC-CDS); and to produce a white paper to recommend approaches for transparent, fair and equitable exchange of knowledge artifacts.
b. An overview of the Trust Framework was provided, along with methods used in developing recommendations.
c. The attributes were clustered into nine key groups of attributes, which were then grouped into three domains of evidence, technology and learning. The work group is now in the early stages of taking the attributes and determining how this could be utilized.

d. Barry Blumenfeld asked the workgroup for input on taking the trust attributes identified on slide 22, and potentially looking at the metadata currently captured in the artifacts, and identifying gaps to build into the CDS artifacts.
e. Comments and questions from the workgroup included:
    i. A work group member commented that provenance is a key area, and is not just about the scientific validity, but also following the rules of an organization.
    ii. A suggestion was made to look at electronic clinical quality measures (eCQMs), particularly at what the National Quality Forum (NQF) uses in its' endorsement process. Josh replied that they have looked at the NQF process as well as other "like" organizations.
    iii. A workgroup member commented that trusted version control in eCQMs was much more of a headache than anyone imagined, and that it's important to trust the version control.
f. As no more time was available for additional comments, the slides from today will be distributed with Josh's email address included, and he invited the work group to send any further suggestions to him.

Open Discussion and Closeout

A work group member reminded the work group about the electronic clinical quality improvement (eCQI) resource center, which can be used to promote events and work being done around clinical quality improvement efforts. The meeting closed at 4:30 pm.