CDS Connect – Consumer

This protocol will be used for individuals who have used or could use a product developed by the Initiative, including artifacts found in the CDS Connect repository, the Authoring Tool, and GitHub Resources. It is intended for actual and potential consumers including individuals who develop CDS but do not use CDS Connect products.

Introduction/Consent
- Introduce members of group.
- Thank you very much for your time today.
- NORC at the University of Chicago is a not-for-profit research organization, and we are working with the Agency for Healthcare Research and Quality (AHRQ) as the independent evaluator of the Patient Centered Outcomes Research (PCOR) Clinical Decision Support (CDS) Initiative.
- I am going to be leading this interview, but others may chime in with follow-up questions.
- Just a few things before we get started.
    o Your participation is voluntary and you can conclude the discussion at any time. We are interested in your opinions – it is completely okay for you not to answer any questions that you do not want to. There are no wrong answers to the questions I will ask.
    o We will not attribute anything you have to say as coming from you personally. We will keep your name confidential in any summaries or reports we make available to AHRQ or the public.
        ▪ You are also free to make comments "off record" in which case we will only consider them as background.
    o We have scheduled this meeting to last [x] minutes. **If you need to stop for any reason**, that is fine. We know you are busy and may schedule a follow up interview or e-mail you to address any unanswered questions. We appreciate your participation.
- We have **a member of our team from NORC taking notes** so we can write our reports, and we would like to make an **audio recording** to help make sure we capture everything correctly. The notes and recording will only be used by NORC to write our reports.
- Do you offer your consent to participate in the interview, and are you okay with us recording our conversation?
- Do you have any questions before we begin?

Opening
- Could you please start by introducing yourself, your organization, and your role in the field of CDS development?
  - o Do you consider yourself to offer input on CDS development as a clinician or as patient, and if so how?

- Had you heard of the CDS Connect resources prior to the request for this interview?
  - o How had you heard of it?
- Did you participate in any of the CDS Connect workgroups?
  - o Which group(s)?
  - o Did your participation in these groups inform your or your organization's development or implementation of CDS?

Repository/Artifacts
Consuming
- Have you used any of the artifacts from CDS Connect Repository?
  - o If yes, which artifacts did you use? How did you use them?
    - ▪ What was your experience like accessing the artifact?
    - ▪ Did you try to implement it, and if so, where and what was that process like?
      - • Please describe the resources (time and staff) required?
      - • Were you ultimately able to adapt the CDS artifact from the repository and implement it into your EHR system? Or implement it as a patient facing app?
      - • Have you observed an impact from the artifact in the setting in which it was implemented? What was its use?
    - ▪ How did the available artifacts meet or not meet your needs?
    - ▪ How did implementation of the artifact from CDS Connect in your health system/setting differ from implementation of other CDS artifacts that were not from CDS Connect?
    - ▪ Would you use a CDS Connect artifact again? Why/Why not?
    - ▪ Are you aware of any other resource like the CDS Connect Repository for shareable standards-based CDS artifacts? Have you used them? How do they differ from the CDS Connect Repository?
      - • What does the CDS Connect Repository offer that these other resource(s) don't?
    - ▪ Relative to past CDS integrations, did the availability of the artifacts through the CDS Connect repository save time in your implementation? If so, how?

  - o If no, why not?
    - ▪ Did you not find the available artifacts relevant to your needs?
    - ▪ Were you unable to adapt them for local use?
    - ▪ Do you use other resources as a base for identifying CDS that can be adapted for local use? If so, which one?
      - • Why do you prefer these other products?
- Do you (for consumers)/ would you (for non-consumers) trust the artifacts in the Repository? How do you define or think about "trust" in the context of the CDS Connect Repository and the artifacts it includes?
  - o What features or characteristics of the Repository and artifacts help engender trust?
  - o What issues or concerns have you faced with trust of CDS Connect Repository and its artifacts?

For all:
- To what extent do you believe the Repository is trusted for the successful dissemination of CDS?
- To what extent do you find the CDS Connect website easy or challenging to navigate? If yes, which aspects of CDS Connect were confusing/challenging to navigate?
- Did you find that the Repository was easy to search and query? Why or why not?
- Are there any additional features or meta data that would be useful to include in the Repository?

- Can you describe any organizational considerations that influence your ability to use and implement shareable, standards-based CDS artifacts? Legal considerations? Market considerations?
- How does your relationship with your EHR vendor influence your decision to use shareable, standards-based, CDS artifacts from CDS Connect?
- What are the barriers and facilitators to using publically available CDS artifacts such as those available through the CDS Connect repository?

Contributing
- Have you considered contributing any other artifacts to CDS connect? Or would you?
- What is the value of a repository like CDS Connect on the field of CDS Development?
- Have you considered contributing the artifact that you adapted from the original on CDS connect back to CDS Connect?

Clinicians
- Were you involved in the adapting or implementing of [the CDS artifact that was based off the shareable, standards-based, CDS Connect artifact]? If yes:
    o Can you describe how?
    o How did the experience compare to implementation of other CDS tools that were not from CDS Connect?
- Have you used [the CDS artifact that was based off the shareable, standards-based, CDS Connect artifact] to inform clinical decision making?
    o What was your impression of its usability?
    o Do you trust that the underlying clinical evidence of the artifact?
    o Does it change the way you deliver care to patients?
    o How is it similar or different than other CDS?
- To what extent do you find the artifacts on CDS Connect to be patient centered?
- Have any of the artifacts you have used or created engaged patients or caregivers? How so?
- How important is it for artifacts to have incorporated patient or caregiver preferences?
    o Does this influence your decision to use a CDS artifact?

Patient
- Have you or your physician used [the CDS artifact that was based off the shareable, standards-based, CDS Connect artifact] to inform clinical decision making?
    o What was your impression of it?
    o Do you trust that the artifact is based on good evidence? Why or why not?
    o Does it change your medical decision making with your provider? If so, please discuss how.

Impact
- To what extent do you think that CDS Connect has been a success?
    o What challenges do you see with either using it, or with the entire concept of it?
    o Do you have any recommendations for it?
- To what extent has CDS Connect has disrupted the field of CDS development and encouraged more developers to make shareable, standards-based, interoperable CDS? Why?

Sustainability
- What would you like to see become of CDS Connect in the future? Would you like to see it be sustained, and how?