Clinical Quality Framework
CQF Pilot Survey
Phase III

Motive Medical Intelligence and Cognitive Medical Systems
August 14, 2015

1. **Did you and your organization achieve your goals? Please provide a detailed response.**

   In Phase I of the pilot, Motive Medical Intelligence and Cognitive Medical Systems demonstrated the interoperability of an event-condition-action (ECA) CDS artifact using the CQF framework. The goal of Phases II and III of our pilot is to apply the CQF framework and the lessons learned from Phase I to the authoring, publishing, importing, translating, and execution of additional types of clinical knowledge artifacts, namely clinical assessments and order sets.

   At this time, Motive has authored a clinical assessment, an assessment scoring rule, and an order set using the CQF specification; Cognitive has translated all of them successfully. In Phase IV we plan to author a second order set and to implement all four artifacts as fully functioning and executable components in the Cognitive delivery environments.

2. **What work products/deliverables did you produce (e.g., knowledge artifacts)? What was the target timeline and actual timeline for producing them?**

   Motive and Cognitive have produced knowledge artifacts as follows:
   - *Suicide Risk Assessment* documentation template
   - *Suicide Risk Assessment* scoring rule
   - *Suicide Risk Assessment and Outpatient Management* order set
   - *Suicide Risk Assessment and Hospital Management* order set

   We have taken steps to produce these artifacts as follows:
   1. Authored the artifacts in CQF
   2. Translated the CQL computable components to ELM
   3. Packaged and published the artifacts as HeD XML documents
   4. Imported and translated the XML documents to Java
   5. Built delivery applications to demonstrate the artifacts
   6. Integrated the artifacts into the delivery applications

   The target timeline for building these artifacts and completing the implementation was 16 weeks. The actual timeline will be 20 weeks.

3. **Please describe the resources needed to produce Phase III work products. Resources can be defined as programmer/analyst hours, participation in the All Hands meeting, participation in HL7 based weekly calls, providing rationale to management to participate in the pilot, etc. Did you contribute any comments to the HL7 ballot (January/May 2015)? If you did, were they responded to by the CQF team in a timely fashion? If not, why not?**

   Fourteen people are working on the project:
   - Two clinical subject matter experts
   - One clinical informatics lead
   - One project manager
   - Two medical editors
   - Three artifact authors
   - Two informaticists

- One technical lead
- Two software developers

A total of 2,500 hours was contributed to this project over the initial 16 weeks.

In Phase III of the project we contributed comments to the HL7 May 2015 ballot for the HL7 FHIR project. The CQF team responded in a timely manner to all of our queries and requests.

4. **Has your team updated its work products to reflect changes in each of the balloted standards? If yes, please provide an example. If no, please provide a brief explanation of why the update to the specification was not included.**

   The development stage of this pilot phase was begun in May and incorporated the most recent versions of the balloted standards from its inception (HL7 KAS Version 1.3). We are working closely with the CQF team and are continually incorporating updates to the standards per their recommendations and responses to our inquiries.

5. **What, if anything, could have made your pilot more successful? Please include tangible resources, like funding or guidance documents, and intangibles, like alternative pilot sites or support from leadership.**

   One major issue we encountered with this phase of the pilot was with the ELM reference implementation. Our finding was that the tooling was not completely vetted for our use case and we encountered obstacles in translating the CQF ELM into a Javascript application. We worked with the CQF team to resolve this issue and, in a minor way, contributed to the enhancement of the reference implementation.

   For all other aspects of our work the reference implementation was very helpful and enabled us to complete the successful demonstration of the use case.

6. **Did you receive the support from the CQF project team that you expected? Please explain.**

   Yes, we worked closely with the CQF project team on all aspects of the pilot, including representation of the artifacts in CQF and translation to a Java-based implementation.

7. **On a scale of 1-10 (one being the least satisfied, and 10 the most), please rate your overall experience with the CQF project. Are there specific issues of which you think the CQF project and/or the Standards and Interoperability program should be aware?**

   We rate our overall experience with the CQF project as a 9. We have no significant issues with the CQF project or the Standards and Interoperability program. We see great opportunity and need for continued development of the standards, particularly to support assessment, documentation, and order set CDS artifact types. We look forward to our continued participation in the CQF project and the Standards and Interoperability program.