Keystone Interoperability Measurement Questionnaire

Adopted by Consensus at the KLAS Keystone Summit: October 2, 2015

Definition of Interoperability

The ability of two or more healthcare provider entities to exchange and incorporate information with precoordination and context such that the information has utility in improving patient care

Definitions:

Incorporate: ingesting outside data into the EMR and into the workflow of the clinician

Precoordination: with both the sending and receiving side understanding the current use case, coordination ensures that the exchanged data is appropriate in context and content.

Context: data is sent with normalization and adherence to standards such that the information is fully usable and ingestible by the receiving EMR.

Measurement Premise:

- A measurement of interoperability, based on the experience and voice of the customer/provider, is a valuable and acceptably accurate vehicle for monitoring interoperability success.
- Interoperability must be measured within the context of different exchange partners since some connections are of significantly higher value to some patients/healthcare organizations than others.
- The relative value of sharing among same-EMR organizations depends on the local market environment. Providers, for the benefit of patients, want to get all of the necessary information regardless of the EMR.
- Additional EMR-based interoperability measurements continue to be explored.

Measurement Questionnaire:

Scope: Acute and ambulatory EHR systems

1. Current EMR/Enterprise Vendor_____(separate question set if using more than one EMR)
2. Specify the exact EHR/HIE solutions you have deployed that impact your current state of interoperability.

   For questions 3–7 and 9, rate your level of interoperability for the following interoperability use cases.

Interoperability Use Case/Exchange Partner	Interoperability Rating
Overall sharing with outside organizations	
Sharing with organizations not using your EMR	
Sharing with critical exchange partners (affiliated, geographically close, etc.) regardless of EMR	

Definition of Exchange Partner: healthcare provider entity with which your organization is sharing clinical records

Definition of Critical Exchange Partner: healthcare provider entity that for geographical, care-coordination, or business reasons is a more important exchange partner. For instance, affiliated physicians, ACO partners, etc. To be defined by the organization.

3. **Vendor Connections:** For each of the above use cases, what EMR brands are you connecting to?
4. **Availability:** For each of the above use cases, how often do clinicians have the technical ability to acquire the information they need from other EMRs (through any means: HIE, HISP, Direct, etc.)? [Comments]
    a. Never
    b. Rarely
    c. Sometimes
    d. Often
    e. Nearly always
5. **Locating:** For each of the above use cases, how easy is it for clinicians to locate available records from other organizations? [Comments]
    a. Nearly impossible to find
    b. Possible but with significant effort
    c. Possible with moderate effort
    d. Usually simple to find
    e. Usually automatically brought to the attention of clinicians
6. **Delivery:** For the above use cases, how is data typically sent and received? (Select all that apply) [Comments]
    a. Scanned images of paper (PDF, JPEG)
    b. Web pages or text documents (portal, blue button)
    c. Specific transactions (such as HL7 Version 2.x)
    d. Structured documents (such as CCD/C-CDA)
    e. Application programming interfaces (such as FHIR)
    f. Using the best available national standard
7. **Display:** For the above use cases, how is available outside patient data typically displayed to clinicians? [Comments]
    a. In a separate portal
    b. Within the EMR but in a separate tab or section
    c. Interspersed with clinician's own records
8. **Breadth:** For your overall sharing with outside organizations, record the breadth of your sharing along with typical delivery and display. [Comments]

Record Shared	Is Being Shared? (Y/N)	Typical Delivery (options from question #6)	Typical Display (options from question #7)
Transition-of-care documentation			
Lifetime healthcare summary (problems, medications, diagnostic test results, notes, care team, care plans)			
Admission/Discharge/Transfer notification			
Radiology interpretations/reports			
Radiology images			

Lab results			
All elements of the patient record for which there are national standards			

9. **Impact and Use:** Within the above use cases, how impactful is the use of available patient data? [Comments]
   a. Never/almost never used
   b. Rarely used
   c. Sometimes used with some benefit
   d. Often used with some benefit
   e. Often used with great benefit
   f. Nearly always appropriately used by clinicians with great benefit to patient care
10. **Barriers to Successful Use**: Within the above use cases, what is the greatest barrier to making the *available* data more useful for clinicians? [Comments]
   a. Information is not reliably available when needed
   b. Information is not always accurate
   c. Information format is too unwieldy or cumbersome (e.g. C-CDAs are too large, it is hard to find relevant information in C-CDAs, etc.)
   d. EMR does not present information in workflow
11. **Barriers to Sharing:** What are the greatest *overall* barriers to interoperability you observe? (select and order in terms of significance all that apply) [Comments]
   a. Your organization's unwillingness
   b. Your organization's lack of resources/inability
   c. Competitor's unwillingness
   d. Competitor's lack of resources/inability
   e. Technical barriers
   f. Vendor cost models
   g. Vendor competencies
   h. Lack of clear legal governance to facilitating sharing
   i. Lack of a national framework
   j. Opt-out/opt-in issues
   k. Lack of a strategy or road map