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transforming health through information and technology™

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October 2018

The Healthcare Information and Management Systems Society (HIMSS) is pleased to submit these comments for consideration by ONC to update the Interoperability Standards Advisory (ISA). These comments are one set in a series that HIMSS has provided on the content in the new web-based version of the ISA. For more information on previous comments, please visit the HIMSS website.

Please find comments below as related to the current ONC Requests for Feedback.

18-1. In what ways has the ISA been useful for you/your organization as a resource? ONC seeks to better understand how the ISA is being used, by whom, and the type of support it may be providing for implementers and policy-makers.

HIMSS membership includes individual, organizational and corporate members who are end-users that work to develop and implement interoperable solutions within their organizations. Below are some examples of the types of organizations that interact with the ISA, and their experiences with the resource:

- One member, working for a network of outpatient, physical therapy facilities, shared that the ISA is referenced for interface needs. However, the standards listed in the ISA are not always available on their EHR developer site, limiting access to data to what the EHR system deems important to include in their interfaces.
- One member, working with a solutions supplier providing services across the healthcare industry, shared that his organization has referenced the ISA for various integrations, using the information to determine which standards to adopt depending on the use case. It has also helped validate claims of external vendor partners that may push for a particular type of integration based on how widely adopted a standard may be.
- Another member from an academic medical center cited the value of the ISA Reference Edition. This dated version of the ISA resource is helpful to reference in contract negotiations with vendors and other entities. While the continuous updates to the ISA have clear value to keep up with developments in the industry, the Reference Edition has clear value in the contractual landscape.

Conversations around the uses of the ISA led to dialogue that revealed that many of our members still were not aware of the ISA. Once introduced to the resource, they identified value that the resource could potentially bring to the work within their organizations. HIMSS continues to promote the ISA in many of its interoperability resources, and encourages the ONC to continue to explore marketing and awareness building opportunities to the health IT ecosystem with other federal agencies and non-profit organizations.

Beyond these uses by our members, they have also discussed additional items of value in their use of the ISA. Specifically, HIMSS would like to acknowledge the expansion of Security standards and resources included in the ISA. Alignment of interoperability standards with the key security considerations will only grow in importance as more stakeholders are impacted by this landscape, and updating this information will be important in enhancing the value of the ISA. Additionally, members voiced the importance of embedding as many links to additional resources as possible. Inclusion of additional linked resources in this manner serves as an important element in the user experience of the ISA.

18-2. Over the course of 2018, some new functionality has been added to the ISA, with more enhancements expected through 2018 and 2019. Are there additional features or functionality that would enhance the user experience?

HIMSS appreciates the addition of the ISA Updates tab as well as the notification options. While the ISA Updates tab provides information about major changes to the ISA and the notifications are helpful to know when updates have been made to the ISA and in which sections they occurred, it is still unclear what specific updates are made. Once in the Updates section, there is no indication as to whether a standard was added or changed, or additional limitations were provided. Furthermore, if a person is not subscribed to notifications, they have no way to know the information has changed. Additional versioning in the notes would help in recognizing what has changed. This may be achieved by adding tabs to reference previous dated versions of the Interoperability Need. It may also be helpful to include a "Last Updated" date on each Interoperability Need page.

There are a number of places within the ISA where navigation links are broken. For example, the left sidebar index has been reordered alphabetically. However, some of the forward/background options below each Interoperability Need page do not navigate to the next Interoperability Need listed in the index order.

The left sidebar index should be optimized with some additional functionalities. Currently the scroll is synchronized for the main ISA body as well as the index sidebar. Allowing the index sidebar to scroll separately from the body would enhance user experience. ONC may also want to consider adding the page-to-page navigation at both the bottom and top of the page.

HIMSS urges ONC to consider adding more filters for users to leverage in exploring the ISA. A valuable function would be the ability to filter by the Federal Regulation or Requirement. It is helpful having links to which standards are federally required, but it would also be helpful to search across all the standards required for a specific regulation. This would give more power to health systems as they explore and negotiate adding products from EHR systems/vendors.

Many HIMSS members agreed that it would be beneficial if ONC added a section that highlighted real examples of interoperability in action to demonstrate the value of leveraging the ISA. When users have examples and platforms to discuss the implementation of recommended standards, they can learn from other's implementations and engage in dialogue to improve on those experiences. Any opportunity to tie the use of these standards to improved clinical and administrative outcomes may provide leverage to organizations to pursue adoption of those efforts. This modification will also make the ISA more understandable to stakeholders with less technical background and enable them to better understand and implement standards-based health IT solutions.

While the Interoperability Proving Ground (IPG) offers a home for examples of real-world efforts and provides a number of resources across the ISA, they do not always provide clear information on the value and challenges of leveraging these standards. Expanding this information either in the IPG or within another prominent area of the ISA, could serve as a resource and marketing opportunity for the use of the ISA. Some examples to consider:

- EHRA Interoperability Success Stories
- HIMSS Value Suite
- Davies Award Use Cases

Again, as the conversation of functionality continued, members voiced that while much of the functionality exists in the ISA, it is not clearly highlighted for users to leverage. There is a paragraph in the beginning of the ISA Introduction that discusses some of the ways to engage with the ISA. This

paragraph could be highlighted as its own section or subsection to educate users. Adding this functionality into the marketing activities for the ISA would be helpful as well.

18-3. Is the existing ISA format used for listing standards and implementation specifications applicable for listing Models and Profiles? Are there additional or different attributes that should be collected for them? Are there additional models and/or profiles that should be listed? Are models and profiles useful for inclusion in the ISA?

As a first step to improve this section of the ISA, HIMSS recommends adding specific definitions for what ONC means when they refer to Models and Profiles, as these terms are leveraged in other ways within the health IT industry. For example, standards development organizations such as IHE use the word "profile" to mean "a precise definition of how standards can be implemented to meet specific clinical needs." The "Profile" content of the Models and Profiles section is function-focused, while the other ISA sections are more akin to the use of the word "Profile" as IHE defines it. HIMSS recommends that ONC explicitly define the Models and Profiles section and state its purpose and expected use. Given that the information included seems more educational, ONC may want to consider moving this entire section under the Educational Resources section.

In regards to the attributes provided for these Models and Profiles, the functional models and profiles and informational models serve a different purpose than the standards and implementation specifications in the rest of the ISA (Section 1-3). Therefore, applying the same attributes from Sections 1-3 to these Models and Profiles is not appropriate. These are more conceptual reference models providing information to understand how these standards are built. One example of the inappropriateness of the attributes is with the row labels. Currently, "Implementation Specification" is used to describe the models/profiles in the tables. This name is not appropriate here since these Models and Profiles are not implementation specifications, and HIMSS suggests simply identifying them as a Functional Model or Informational Model.

18-4. Are there additional informative or educational resources that can be provided to help stakeholders better understand the ISA, health IT standards, interoperability, etc? (*Refer to Appendix II for current resources provided)*

HIMSS appreciates the work ONC has done to bolster the Security resources included in the Appendix. However, with the wide breadth of resources included, if there are any educational resources that can be provided as a foundation to Appendix I, HIMSS recommends adding them. ONC may want to review the HIMSS Privacy & Security Toolkit as an educational resource for inclusion. NIST may be able to provide such resources for consideration.

Also, as mentioned in Question 18-3, HIMSS requests that ONC consider moving the Functional and Informational Models and Profiles to Appendix II. This section aligns better with the information those models and profiles provide. In addition to the current models listed, Domain Analysis Models would be a helpful addition to Appendix II.

Additional Feedback

During our review of these four questions, HIMSS encountered additional items to share as feedback. Throughout the ISA, all links to https://htct.hhs.gov and its related pages are currently unusable due to the certificate having expired. Please update these hyperlinks. ONC may consider improving their alignment with other standards sources. For example, it would be beneficial if the work of the CMS Data Element Library (DEL) was reconciled with the ISA. Establishing the ISA as a repository of standards across all agencies within the Department of Health and Human Services (HHS) would be of value and assist end users with obtaining comprehensive education and guidance. In the same spirit as the recommendation regarding the CMS DEL, HIMSS urges ONC to also consider how the ISA will be leveraged to document

and align with the forthcoming US Core Data for Interoperability (USCDI) data elements. Once those are finalized, will these data classes be tracked within the ISA?

HIMSS would also like to suggest a core set of IHE Profiles to be included in the ISA as they provide FHIR-based APIs as methods of accessing data through currently deployed information-sharing infrastructures like XDS/XCA and Direct. The current widespread use of these infrastructures is well documented in the HIMSS Interoperability Initiatives Environmental Scan. This core set of FHIR-based IHE Profiles includes:

- Mobile access to Health Documents (MHD) - defines a FHIR interface for document sharing (e.g., HL7 CDAs), including, optionally, providing a FHIR proxy to an XDS/XCA environment. The Argonaut Document Access Implementation Guide is simplified implementation of this option.
- Mobile Cross-Enterprise Document Data Element Extraction (mXDE) - defines a method of exposing data elements (represented as FHIR resources) extracted from documents (e.g., CDAs) that have been shared, for example, via FHIR or XDS.
- Patient Demographics Query for Mobile (PDQm) – Defines FHIR Patient resource query capabilities to establish expected baseline search capabilities. The query capabilities defined are equivalent to those described in the HL7 v2-based IHE PDQ profile.
- Query for Existing Data for Mobile (QEDm) - supports queries for clinical data elements, including observations, allergy and intolerances, conditions, diagnostic results, medications, immunizations, procedures, encounters and provenance by making the information widely available to other systems within and across enterprises.

Two additional IHE Profiles also warrant consideration:

- Mobile Care Services Discovery (mCSD) (including HPD) – defines a comprehensive Provider Directory including Organization, Location, Services, and Practitioners.
- Internet User Authorization - defines a plugable basic OAuth interaction to enable app and user authorization. Intended to be enhanced based on use-case analysis.