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ISDS INTERNATIONAL SOCIETY FOR DISEASE SURVEILLANCE

Updates to the Implementation Guide for Syndromic Surveillance

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Objective

To describe the process to update the Implementation Guide (IG) for Syndromic Surveillance via community and stakeholder engagement and highlight significant modifications as the IG is vetted through the formal HL7 balloting process.

Introduction

In 2011, the CDC released the PHIN Implementation Guide (IG) for Syndromic Surveillance v.1 under the Public Health Information Network. In the intervening years, new technological advancements, EHR capabilities as well as epidemiological and Meaningful Use requirements have led to the periodic update and revision of the IG through informal and semi-structured solicitation and collection of comments from across public health, governmental, academic, and EHR vendor stakeholders. Following the IG v.2.0 release in 2015, CDC initiated a multi-year endeavor to update the IG in a more systematic manner and released further updates via an Erratum and a technical document developed with NIST to clarify validation policies and testing parameters. These documents were consolidated into the Message Guide v.2.1 release and used to inform the development of the NIST Syndromic Surveillance Test Suite (http://hl7v2-ss-r2-testing.nist.gov/ss-r2/#/home), Validation Test Cases, and develop a new rules-based IG built using NIST's Implementation Guide Authoring and Management Tool (IGAMT).

As part of a Cooperative Agreement initiated in 2017, CDC and ISDS built upon prior activities and renew efforts in engaging the Syndromic Surveillance Community of Practice for comment on the IG with the goal of having the final product to become an "HL7 V 2.5.1 Implementation Guide for Syndromic Surveillance Standard for Trial Use" following a formal HL7 balloting process in 2018.

Methods

ISDS coordinated a multi-stakeholder working group to revisit the consolidated IG, v.2.1 and began to collect structured comments via an online portal, which facilitated the documentation, tracking, and prioritization of comments for developing consensus and ultimately reconciliation and resolution when there were errors, conflicts or differing perspectives. 132 comments were received during the initial review period (April – July 2017) with 16 elements captured for each comment which included: Subject, Request Type, Clinical Venue, Name, IG Section, Priority, Working & Final Resolution (Fig. 1). The online portal also allowed for members of the Message Guide Workgroup to provide feedback directly to one another through a 'conversation tab', this has been an important feature in teasing out the underlying concerns and issues with a given comment across different local, state, and private sector partners which many have differing institutional perspectives and state or locally derived requirements (Fig. 2). Some comments were able to be fully described and resolved using this feature. Following the initial comment period, ISDS initiated a weekly webinar-based review process to delve into specific issues in an in-depth manner. In general, approximately 12 comments were addressed on a given call. Each week ISDS staff would lead the webinars structured around similar comment types (e.g. values sets, DG1 Segments, IN1 Segments, Conformance Statements, etc.). This efficiently leveraged the expertise of individuals and institutions with concerns revolving around a specific domain, messages segment, or specification described within the IG. Comments for which consensus and resolution was achieved would be "closed-out' on the portal inventory and new assignments for review would be disseminated across the Message Guide Workgroup for consideration and discussion during the subsequent review calls.

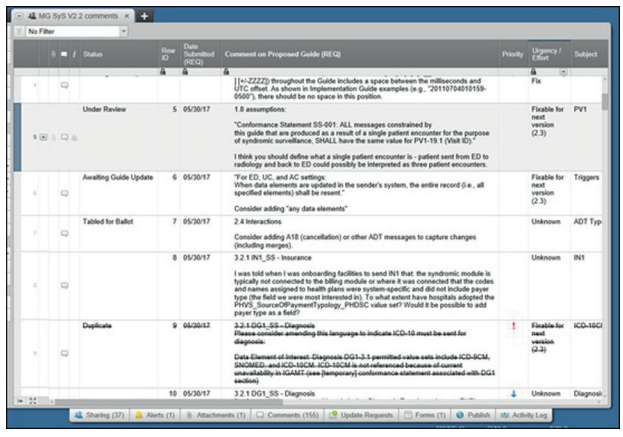
Results

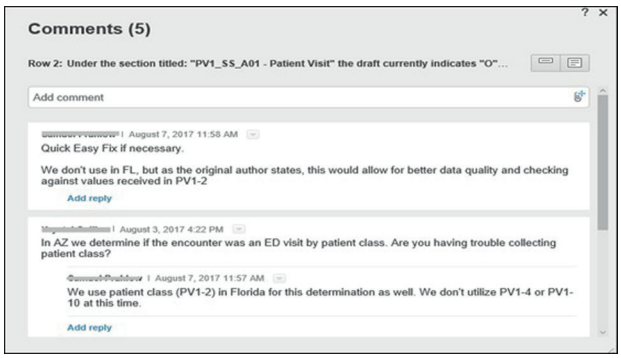
To date this review process has identified and updated a wide-range of specification and requirements described within the IG v.2.0. These include: specifications for persistent patient ID across venues of service, inclusion of the ICD-10-CM value set for diagnosis, removal of the ICD-9-CM requirement for testing and messages, modification of values such as pregnancy status, travel history, and medication list from "O" to "RE", and the update of PHIN VADS value sets.

Conclusions

The results of this multi-agency comment and review process will be synthesized and compiled by ISDS. The updated version of the Message Guide (re-branded to the HL7 V 2.5.1 Implementation Guide for Syndromic Surveillance) will be made available to the Public Health community by November 2017, when a second round of review and commentary will be initiated.

This systematic and structured review and documentation process has allowed for the synthetization and reconciliation of a wide range of disparate specifications, historical hold-overs, and requirements via the perspectives of a diverse range of public health partners. As we continue to move through this review process we believe that the final HL7 balloted "Standard for Trial Use" IG 2.5 will be a stronger and more extensible product in supporting syndromic surveillance activities across a wider and more diverse range of clinical venues, EHR implementations, and public health authorities.





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Messaging Guide; Syndromic Surveillance; HL7

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