SNOMED, ICD-11 Not Feasible Alternatives to ICD-10-CM/PCS Implementation

By Sue Bowman

As the US healthcare industry faces yet another delay in ICD-10-CM/PCS implementation, with a new compliance date of October 1, 2015, questions continue to arise as to whether there are any alternatives for replacement of ICD-9-CM other than implementation of ICD-10-CM/PCS. In particular, use of SNOMED CT or waiting for ICD-11 are both alternatives that have received attention. This article addresses why neither of these approaches is a reasonable alternative to implementing ICD-10-CM/PCS, and why the US must remain fully committed to transitioning smoothly to ICD-10-CM/PCS on October 1, 2015 while leveraging the exciting opportunities presented by this transition.

SNOMED CT and ICD-10: Complementary—not Competing—Systems

SNOMED CT and ICD are designed for different purposes. ICD's focus is statistical, whereas SNOMED CT is clinically-based and focused on capturing the information needed for clinical care.[1]

A clinical terminology such as SNOMED CT is an "input" system designed for the primary documentation of clinical care.[2] It is the global clinical terminology that adds processable meaning to the EHR.[3] When implemented in software applications, SNOMED CT can be used to represent clinically relevant information consistently, reliably, and comprehensively as an integral part of producing EHRs.[4]

The International Classification of Diseases (ICD) is the international standard diagnostic classification that organizes content into meaningful standardized criteria and enables the storage and retrieval of diagnostic information for epidemiological and research purposes.[5]

ICD is the foundation for the identification of health trends and statistics globally. The ICD defines the universe of diseases, disorders, injuries, and other related health conditions. It organizes information into standard groupings of diseases, which allows for:

- Easy storage, retrieval, and analysis of health information for evidenced-based decision-making
- Sharing and comparing health information between hospitals, regions, settings, and countries
- Data comparisons in the same location across different time periods[6]

ICD allows the counting of deaths as well as diseases, injuries, symptoms, reasons for encounter, factors that influence health status, and external causes of disease. It is the diagnostic classification standard for clinical and research purposes. These include monitoring of the incidence and prevalence of diseases, observing reimbursements and resource allocation trends, and keeping track of safety and quality guidelines.[7]

The International Classification of Diseases and Related Health Problems, 10th Revision, Clinical Modification (ICD-10-CM) is a US version of the World Health Organization's ICD-10 and was developed for use in reporting morbidity data in all healthcare settings. The International Classification of Diseases 10th Revision Procedure Coding System (ICD-10-PCS) has been developed as a replacement for Volume 3 of the International Classification of Diseases 9th Revision (ICD-9-CM).

The standard vocabulary afforded by SNOMED CT supports meaningful information exchange to meet clinical requirements. ICD-10-CM and ICD-10-PCS, with their classification structure and conventions and reporting rules, are useful for classifying healthcare data for administrative purposes, including reimbursement claims, health statistics, and other uses where data aggregation is advantageous.

Information captured in SNOMED CT can be re-purposed through linkage to ICD. Classification systems allow granular clinical concepts captured by a terminology to be aggregated into manageable categories for secondary data purposes.[8] Clinical data "input" into EHR systems can be transformed by ICD into "output" governed by reporting rules and guidelines for use. The benefits of using SNOMED CT increase exponentially if it is linked to modern, standard classification systems for the purpose of generating health information necessary for secondary uses such as statistical and epidemiological analyses, external reporting requirements, measuring quality of care, monitoring resource utilization, and processing claims for reimbursement.[9]

To maximize the value of health information, classifications and terminologies should be used appropriately according to their purpose(s) and design. Together, terminologies and classifications provide the common medical language necessary for interoperability and the effective sharing of clinical data.[10] Linked together, ICD and SNOMED CT support better data collection, more efficient reporting, data interoperability, and reliable information exchange in health information systems. Healthcare systems will benefit from better data while reducing data capture and reporting costs. ICD-10-CM/PCS and SNOMED CT can both contribute to the improvement of the quality and safety of healthcare and provide effective access to information required for decision support and consistent reporting and analysis.[11]

ICD-11? US Can't Afford to Wait That Long

Based on the World Health Organization's current schedule, ICD-11 is expected to be finalized and released in 2017.[12] For the US, that date is the beginning, not the end, of the process toward adoption of ICD-11. Regardless of the benefits of ICD-11, the US would still need to evaluate the code set for national use and likely develop a national version to allow for the annual updating demanded by Congress and US stakeholders.[13] Also, since ICD-11 does not include a procedure classification system, a procedure coding system for use in the US would need to be developed.

The process of evaluating ICD-11 for use in the US, developing a national modification to meet US information needs, and developing a procedure coding system would take at least a decade, followed by the rulemaking process to adopt ICD-11 as a HIPAA code set standard. In the case of ICD-10, it took eight years to develop a US modification of ICD-10 and a procedure coding system, and nineteen years until a final rule for the adoption of ICD-10-CM/PCS to replace ICD-9-CM to be published. Five years after publication of this final rule, and twenty-four years after the World Health Assembly endorsed ICD-10, the US has still not implemented ICD-10-CM/PCS.

The US cannot wait another 10-25 years to replace the ICD-9-CM code sets. Replacement of ICD-9-CM is long overdue. There is a cost and danger to using the outdated ICD-9-CM coding system. ICD-9-CM is obsolete and no longer reflects current clinical knowledge, contemporary medical terminology, or the modern practice of medicine, and its limited structural design lacks the flexibility to keep pace with changes in medical practice and technology. The longer ICD-9-CM is in use, the more the quality of healthcare data will decline, leading to faulty decisions based on inaccurate or imprecise data.[14] With ICD-9-CM, healthcare providers often don't know precisely what was wrong with patients or what treatments they received.

Waiting until ICD-11 is ready for implementation in the US is not a viable option, as waiting that long to replace the ICD-9-CM code sets would seriously jeopardize the country's ability to evaluate quality and control healthcare costs.[15] US healthcare data is being allowed to deteriorate at the same time demands are increasing for high-quality data that can support new healthcare initiatives such as the "meaningful use" EHR Incentive Program, value-based purchasing, and other initiatives aimed at improving quality and decreasing costs.[16]

In a 2013 report on the feasibility of skipping ICD-10 and going right to ICD-11, the American Medical Association Board of Trustees recommended against skipping ICD-10 and moving directly to ICD-11, as this approach is fraught with its own pitfalls.[17]

Concerns cited in this report included:

- ICD-9 is outdated today and continuing to use the outdated codes limits the ability to use diagnosis codes to advance the understanding of diseases and treatments, identify quality care, drive better treatments for populations of patients, and develop new payment delivery models.
- The market will miss out on the improvements in the ICD-10 codes that align with today's diagnosis coding needs, including the addition of laterality, updated medical terminology, greater specificity of the information in a single code,

and flexibility to add more codes.

- Skipping ICD-10 will impede the ability of the industry to build on their knowledge and experience of ICD-10, which is expected to be needed for ICD-11. Learning the medical concepts, training efforts, and overall implementation efforts for ICD-11 will be more challenging if ICD-10 is not implemented first.
- Implementing ICD-10 is expected to reduce payers' reliance on requesting additional information, known as "attachments," which could reduce burdens on physicians, but this opportunity will be delayed until ICD-11 is implemented.
- The timeframe to have ICD-11 fully implemented could be as extended as 20 years, unless there is a strong commitment by the industry to implement it faster.[18]

Implementing ICD-10-CM/PCS is an important step on the pathway to ICD-11. ICD-10-CM has informed ICD-11 development, as updated clinical knowledge and additional detail considered important for use cases such as quality and patient safety monitoring have been incorporated into the US code sets.[19] Transitioning to ICD-10-CM/PCS in 2015 will provide an easier and smoother transition to ICD-11 at some point in the future.

By preparing information systems now to accommodate ICD-10-CM/PCS, they will be better able to accommodate the transition to ICD-11.[20] And just as modifications to ICD-10 have been incorporated into ICD-10-CM through the annual update cycles, it is anticipated that content additions in ICD-11 that are not already included in ICD-10-CM will be incorporated into ICD-10-CM over time, which will facilitate the transition to ICD-11. Due to the structural limitations and obsolescence of ICD-9-CM, modifications to ICD-9-CM to reflect changes in the World Health Organization version of ICD would be impossible, complicating and disrupting a future transition to ICD-11 if the ICD-10-CM/PCS code sets are not implemented first.[21]

Notes

[1] Kin Wah Fung. "How the SNOMED-CT to ICD-10 Map facilitated the map to a national extension of ICD-10." National Library of Medicine. http://ihtsdo.org/fileadmin/user_upload/doc/slides/Ihtsdo_Showcase2012_MappingNationalExtensionICD10.pdf.

[2] Bowman, Sue. "Coordinating SNOMED-CT and ICD-10: Getting the Most out of Electronic Health Record Systems." *Journal of AHIMA* 76, no.7 (July-August 2005): 60-61.

[3] International Health Terminology Standards Development Organisation. "SNOMED-CT – Adding Value to Electronic Health Records." February 2014. http://ihtsdo.org/fileadmin/user_upload/Docs_01/Publications/SNOMED_CT/SnomedCt_Benefits_20140219.pdf.

[4] International Health Terminology Standards Development Organisation. "About SNOMED CT." http://www.ihtsdo.org/snomed-ct/snomed-ct0/.

[5] WHO-FIC. "International Classification of Diseases (ICD) and Standard Clinical Reference Terminologies: A 21st Century Informatics Solution." May 2013. http://www.cdc.gov/nchs/data/icd/Class_Term_InfoShee_May2013.pdf.

[6] World Health Organization. "International Classification of Diseases (ICD) Information Sheet." http://www.who.int/classifications/icd/factsheet/en/.

[7] Ibid.

[8] Bowman, Sue. "Coordination of SNOMED-CT and ICD-10: Getting the Most out of Electronic Health Record Systems."

[9] Ibid.

[10] Ibid.

[11] WHO-FIC. "International Classification of Diseases (ICD) and Standard Clinical Reference Terminologies: A 21st Century Informatics Solution."

[12] Ibid.

[13] Averill, Richard and Sue Bowman. “There Are Critical Reasons for Not Further Delaying the Implementation of the New ICD-10 Coding System.” *Journal of AHIMA* 83, no.7 (July 2012): 42-48.

[14] Bowman, Sue. “Why We Can’t Skip ICD-10.” Journal of AHIMA. http://journal.ahima.org/2012/04/05/why-we-cant-skip-icd-10/.

[15] Averill, Richard and Sue Bowman. “There Are Critical Reasons for Not Further Delaying the Implementation of the New ICD-10 Coding System.”

[16] Bowman, Sue. “Why We Can’t Skip ICD-10.”

[17] AMA Board of Trustees. “Evaluation of ICD-11 as a New Diagnostic Coding System.” http://www.ama-assn.org/assets/meeting/2013a/a13-bot-25.pdf.

[18] Ibid.

[19] Bowman, Sue. “Why We Can’t Skip ICD-10.”

[20] Averill, Richard and Sue Bowman. “There Are Critical Reasons for Not Further Delaying the Implementation of the New ICD-10 Coding System.”

[21] Bowman, Sue. “Why We Can’t Skip ICD-10.”

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