



American Association  
for Dental Research

April 3, 2015

Karen B. DeSalvo, MD, MPH, MSc  
National Coordinator for Health Information Technology  
Office of the National Coordinator for Health Information Technology (ONC)  
Department of Health & Human Services (HHS)  
Attention: 2015 Edition EHR Standards & Certification Criteria Proposed Rule  
Hubert H. Humphrey Building, Suite 729D  
200 Independence Avenue, SW  
Washington, DC, 20201

RE: Connecting Health and Care for the Nation – A Shared Nationwide Interoperability Roadmap v1.0

Dear Dr. DeSalvo,

On behalf of the 3,600 individual members of the American Association for Dental Research (AADR), we write to thank you for the opportunity to comment on the Office of the National Coordinator for Health Information Technology (ONC) Nationwide Interoperability Roadmap Draft Version 1.0. It was released on January 30, 2015 to identify critical actions that should be taken by key stakeholders to help advance interoperability of electronic health records over the next decade.

Extremely important components of a learning health system are dentists and dental scientists. The expanded utilization of EHR by the health sciences community and the current movement towards a comprehensive electronic inter-professional health record emphasizes the need for electronic dental records (EDR) to be included as part of any interoperability plan. Each year, Americans make about 500 million visits to dentists<sup>1</sup> and in 2012 an estimated \$111 billion was spent on dental services in the United States.<sup>2</sup> Dentistry is increasingly involved in the delivery of patient care in complex multidisciplinary cases. For example, a patient about to undergo cancer chemotherapy may require a diagnostic consultation with a cardiologist to rule out treatment modifications due to a heart condition and with a general practice dentist to rule out care for dental conditions that may complicate the cancer care or result in an adverse outcome if untreated. Additionally there are other oral-systemic health connections including research indicating that periodontal disease may be associated with heart disease, diabetes or stroke.

We share the view that interoperability of electronic health records holds great promise as a research tool through the creation of a learning health system. We understand that in the future ONC plans to address other aspects critical to the learning health system stakeholders such as technology adoption, data quality, documentation and data entry, usability and workflow. We strongly encourage ONC throughout the implementation of the interoperability road map to keep in mind the

<sup>1</sup> "Chronic Disease Prevention and Health Promotion" <http://www.cdc.gov/chronicdisease/resources/publications/aag/doh.html>

<sup>2</sup> "National Health Expenditures 2013 highlights" <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/downloads/highlights.pdf>

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utility and promise of big data observational research. Specifically, as dental scientists, we recognize the methodological challenges associated with the proper curation and application of these powerful assets. Thus, practical guidance from the Department of Health and Human Services and others on best practices in clinical data capture, structure and curation for the highest data quality could be prospectively incorporated into dental information technologies of the future.

We agree that certification and testing are both necessary to assess whether health IT meets certain technical requirements, including conformance to technical standards necessary for interoperability. We recommend that the certification criteria include specifications that clearly ensure that disparate products that receive certification are indeed interoperable. While the roadmap defines interoperability as, “The ability of a system to exchange electronic health information with and use electronic health information from other systems without special effort on the part of the user,” many dental researchers would expand this definition by being able to seamlessly combine records, after proper compliance and approval from different providers using different electronic dental record systems. Additionally, dental researchers would like to be able to merge these data sets with other electronic health records. We view this as a critical component that any interoperability roadmap avoid the creation of new silos.

We applaud and support the ONC efforts to highlight the importance of technical standards for a common clinical data set – the improved standards will establish a good foundation for interoperability that can be further expanded in the future. We recommend the inclusion of standardized clinical terminology in common clinical data sets. We believe that there are several benefits to the standardized documentation of dental diagnoses such as use of a standard language in the documentation of patient care, professional education, support of evidence based research, documentation of the relationships between diagnoses and treatment (procedure codes), reporting of quality measures, patient communication and finally and most importantly the ability of data sharing between disparate entities during the coordination of patient care. We recommend that ONC insists that any terminology should be validated and scientific publications should be available to support its accuracy, usability and validity prior to declaring it as a standard. As the goal is broad-based adoption, any terminology should also be structured in such a way as to facilitate an implementation into an electronic health record with emphasis on clear, concise and easy to use criteria. This could be achieved by the development of reference sets, or “ref sets,” as subsets of a terminology for use within dentistry. As most medical and other health professions’ terminologies are extensive, the development of such subsets as interface terminologies is critical. We recommend that ONC coordinates its efforts with other agencies to fully assess how the common clinical data set is being leveraged by the specialties before considering the addition of other standards or requirements for EHRs. In addition, ONC should encourage the use of an interface terminology and the mapping of the interface terminology to the reference terminologies to help its users to implement a user-friendly terminology.

We support ONC's vision that the industry converge and agrees on the use of the same content and vocabulary standards to satisfy each specific interoperability purpose. We strongly encourage the ONC to facilitate the development of a unified clinical dental taxonomy capable of rigorous structuring dental information in a retrievable exchangeable and researchable format. This taxonomy should be carefully integrated with existing code sets, such as ICD-9, ICD-10 and comprehensive clinical terminologies, such as SNOMED CT.

We appreciate the opportunity to comment on the Connecting Health and Care for the Nation – A Shared Nationwide Interoperability Roadmap v1.0. Thank you for your time and consideration of our comments.

Sincerely,



Christopher H. Fox, DMD, DMSc  
Executive Director  
American Association for Dental Research



Paul Krebsbach, DDS, PhD  
President  
American Association for Dental Research