ABSTRACT

# Health IT meaningful use: how the EHR certification may improve the electronic laboratory reporting (ELR)

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## Objective

The objective of this presentation is to evaluate the potential impact of Stage 1 meaningful use (MU) health IT certification (MUC), on development of national electronic laboratory reporting (ELR) capacities.

## Introduction

The American Recovery and Reinvestment Act (ARRA) brought significant incentives to providers for implementing certified EHR technologies. It specifically requires utilization of certified electronic health records (EHRs) for electronic exchange of health information and for submission of clinical quality and other measures to the federal agencies. The most important barriers in the ELR implementation are a lack of funding at health departments, shortage of staff at health departments, and the variable content and format of ELR messages.[1] The MU is a new factor that may foster ELR technologies through implementation incentives and through standardization of EHRs.

## Methods

(1) Analysis of ELR data structure and data exchange requirements (HL7) (a) for a communication between states and CDC programs and (b) across all MU objectives in comparison with the ELR public health reporting objective. (2) Impact assessment of EHR-related and ELR-related objectives on development of state and national ELR capacities. An assessment of states' ELR capacities was based on the 2008 ELR survey[2] and official web sites of states' department of health. We analyzed ELR messaging requirements using documents that were published through official HL7 and CDC web sites.

## Results

A baseline assessment of ELR status before enacting of the ARRA demonstrates that most of the state legislations did not require ELR. The MUC fosters an implementation of ELR for notifiable conditions. Core MU objectives[3] require an inclusion in certified EHRs data elements that describe patients'

demographics, clinical diagnoses, and test results. It aims to harmonize data elements in health IT systems that are relevant to ELR. For example, a MUC requirement on use of Logical Observation Identifiers and Codes (LOINC) for test procedures in hospital systems will foster using LOINC in ELR. The MUC of EHRs leverages national activities on creation, maintenance, and access relevant to ELR standards for content, messages exchange and their security, and patient privacy.

For example, because the MUC requires use of the HL7 version 2.5.1 for submitting of laboratory results to public health (PH) agencies, it may stimulate PH for using the same HL7 version for ELR. If an expected inclusion of certification requirements for a bi-directional communication between clinical care and PH is added to the MUC at Stage 2, then the MUC impact on ELR will be significantly increased.

## Conclusions

Even though EHRs and ELR operate in different health IT systems (respectively, in clinical care and PH), the MUC of EHRs is a very important factor that may help in further ELR implementation, improvement of interoperability of state and national PH IT systems, and timeliness of PH emergency response.

## Acknowledgements

## References

1 Council of State and territorial Epidemiologists. About ELR. Available at: http://www.cste.org/dnn/ProgramsandActivities/PublicHealthInformatics/tabid/346/Default.aspx.
2 The 2008 National Electronic Laboratory Reporting (ELR) Snapshot Survey. Available at: http://www.cste.org/dnn/Portals/0/2008NationalELRSurveySum.pdf.
3 42 CFR Part 170, Health Information Technology: Initial Set of Standards, Implementation Specifications, and Certification Criteria for Electronic Health Record Technology, Final Rule, 2010.