New Tools and Services to Manage, Access, and Integrate Vaccine Data Standards
Stuart Myerburg, Millie Linville

Background:
The Centers for Disease Control and Prevention (CDC) has several ongoing initiatives to improve the tools and information services available for immunization information end-users. Specifically, the CDC is in the process of implementing a terminology management service to maintain and distribute the CDC-published vaccine code sets, following a pilot of this technology that was completed in 2017. The CDC vaccine code sets include CDC-authored catalogs of standardized codes, as well as mappings to externally-created code sets that are widely used in health care to describe vaccine products. These codes are important for data exchange and public health information.

Setting:
The session will provide an overview of the CDC vaccine data service pilot findings and lessons learned from the 2018 implementation of the new service. Focus will include discussion of the value and capabilities this brings to the immunization community and plans for future enhancements of the service.

Population:
Immunization community.

Project Description:
The vaccine data service aids in the maintenance of code sets and maps between codes through automated updates of the externally-sourced information needed for mapping, automated logic for suggested maps, and automated workflows for immunization community members who use the service.

Results/Lessons Learned:
Evaluation results from the pilot will be presented to demonstrate process improvement and benefits to the immunization community, such as improved identification of new content. The new tools and sources of information provide the ability to enhance the current CDC data set with new data, such as active dates for vaccines, and potentially new code set mappings. Enhancements such as these that may add value to the vaccine information distributed to the community will be discussed.
Scaling Two-Dimensional (2D) Vaccine Barcode Scanning
Ken Gerlach, Regina Cox

Background:
Over the past five years many vaccine manufacturers have affixed two-dimensional (2D) barcodes onto vaccine vials and syringes; the majority of vaccine product presentations are now 2D barcoded. Several electronic medical record (EMR) systems have incorporated 2D barcode functionality, applications to not only capture and process the barcoded data but verify that the scanned vaccine is the one ordered by the provider.

Setting:
Recently, CDC completed a scalability pilot to assess 2D vaccine barcode scanning in a large healthcare system where the majority of vaccines were 2D barcoded and the EMR has 2D barcode functionality.

Population:
Approximately half of the large healthcare system’s practice sites participated in the pilot.

Project Description:
For a period of six months, participant sites used a 2D barcode scanner to capture vaccination data for patients receiving a vaccination. Within this scalability pilot, we sought to understand how this technology could be implemented in a large healthcare system in order to identify lessons learned. We wanted to understand when, why and how barcode scanning rates varied across practice sites by measuring the impact of four different adherence strategies: 1) training only; 2) training and pledge cards; 3) training and weekly adherence rate reports; and 4) training, pledge cards, and weekly adherence rate reports.

Results/Lessons Learned:
Earlier pilot findings showed an improvement in data quality as well as workflow efficiency, however challenges were identified and scanning adherence was inconsistent across sites and over time. This scalability project confirmed the data quality and workflow efficiency findings from the earlier pilots and showed an improvement in scanning rates as well as variation in those rates depending upon the practice type as well as the adherence strategy.
Use and Impact of Clinical Decision Support for Immunization (CDSi) Resources
Lauren Shrader, Eric Larson

Background:
The Clinical Decision Support for Immunization (CDSi) initiative provides a set of resources that translate clinical language from the Advisory Committee on Immunization Practices (ACIP) recommendations into technical logic that can be processed within clinical decision support (CDS) engines used by Immunization Information Systems (IISs), Electronic Health Records (EHRs), and other health information systems (HIS).

Setting:
This presentation will share how the CDSi evaluation team is evaluating the use and impact of these resources. The goal of the CDSi evaluation is to assess how CDSi resources are being used by HIS and what impact the CDSi resources have had on the accuracy and consistency of immunization CDS engines within these systems.

Population:
The online assessment was administered in January 2015, January 2016, and January 2018 to select respondents, including IIS grantees, IIS vendors, independent IIS consultants, and EHR vendors.

Project Description:
Awareness, use, and impact of CDSi resources were measured by asking stakeholders about their experiences in an online assessment and through in-depth interviews with key informants, using a mix of quantitative and qualitative items.

Results/Lessons Learned:
The evaluation methods used in all three assessments, as well as key results, will be presented.