



COVID-19 Evidence Accelerator Collaborative

Lab Meeting # 34

Thursday, June 3rd, 2021 3 - 4:00 pm ET

Call Summary

Overview of Lab Meeting 34

The 34th Therapeutics/Vaccines Lab meeting focused on utilizing COVID vaccine data at the state and federal level. First, we heard a joint presentation by HealthVerity (Dr. Andrew Kress and Dr. Reyna Klesh), CDC (Dr. Thom Sukalac) and HHS (Kamran Khaliq) who discussed utilization of privacy preserving record linkages to support anonymized tracking of vaccinations across a variety of public and private sources. In the second presentation, Ryan Bramble and Anja Fries of the Chesapeake Regional Information System (CRISP) discussed how health information exchanges (HIEs), such as CRISP, can be utilized to support longitudinal tracking of vaccination data. The meeting closed with the Data Visualization of the Week, a graph from Kaiser Family Foundation which highlights a recent poll on how long the vaccine hesitant population plans to hold out before getting vaccinated.

COVID Vaccine Data

Dr. Andrew Kress & Dr. Reyna Klesh, HealthVerity

Dr. Thom Sukalac, CDC

Kamran Khaliq, HHS

Privacy-Preserving Record Linkage (PPRL) - PPRL enables anonymous population-level analytics through linkage of de-identified patient-data across time and place by deduplicating individuals through unique hashed IDs.

Overview of HealthVerity's Use of PPRL for COVID Vaccine Tracking

- HealthVerity's Census technology is being utilized to support the roll-out of PPRL for the COVID vaccine.
- Incorporating PPRL provides CDC and HHS a fully de-identified view of the vaccinated population in the US to help meet CDC's public health needs around vaccine tracking and reporting while maintaining patient privacy.

Objectives & Challenges

- Individuals' vaccination status & two-dose vaccines - people getting vaccinations in two different jurisdictions
- Sharing vaccination data to track population vaccinations & missed vaccination opportunities -- Involves a lot of people and building trust between partners (e.g., local/state, pharmacies, EHRs)
- Patient privacy & data ownership -- No legislative requirement for states to send data using PPRL

COVID Vaccine Real World Data Today

- Medical & Pharmacy billing – Collection of clearinghouses & payer sources.

- Claims submitted using the 837 and/or NCPDP transaction standard as part of typical adjudication processes.
- Top locations of care include pharmacies, clinics, hospitals, LTC, mass immunization sites.
- Pharmacy systems – Collection of pharmacy records & administrations.
 - Internal records maintained by the pharmacy, not predicated on billing.
 - Locations include pharmacy on-site and alternate sites (e.g. place of work).
- Across all data sets we have observed:
 - Mixture of procedure and NDC codes (shockingly large number with “invalid” NDC codes)
 - Costs typically \$0 as expected
 - Inconsistent capture of patient insurance

Use Cases Moving Forward

- Measuring COVID vaccine efficacy and safety in real world data
 - Need to be able to compare vaccinated population to unvaccinated population.
 - There remains a gap in our ability to identify, with high certainty, the unvaccinated population. People not seen in the data may have been vaccinated through another channel.
- Planning for the COVID-19 vaccine booster.
- Maximizing and linking RWD with lab data to understand reinfection and outcomes.
 - Need to better understand how we will measure reinfection. Higher rate of vaccination may lead to less testing because of lower symptomatology.

Public Health Infrastructure During COVID-19

Ryan Bramble & Anja Fries, Chesapeake Regional Information System for our Patients (CRISP)

About CRISP

- **Regional Health Information Exchange (HIE)** serving Maryland and DC, and West Virginia and Connecticut through affiliation.
- **Mission:** We support the healthcare community of MD and our region to appropriately and securely share health information to facilitate care, reduce costs, and improved health outcomes.
- **Vision:** To advanced health and wellness by deploying health information technology solutions adopted through cooperation and collaboration.
- **Guiding Principles:**
 - Begin with manageable scope and remain incremental.
 - Create opportunities to cooperation even while participation healthcare organizations compete in other ways.
 - Affirm that competition and market-mechanisms spur innovation and improvement.
 - Promote and enable consumers’ control over their own health information.
 - Use best practices and standards.
 - Serve out region’s entire healthcare community.

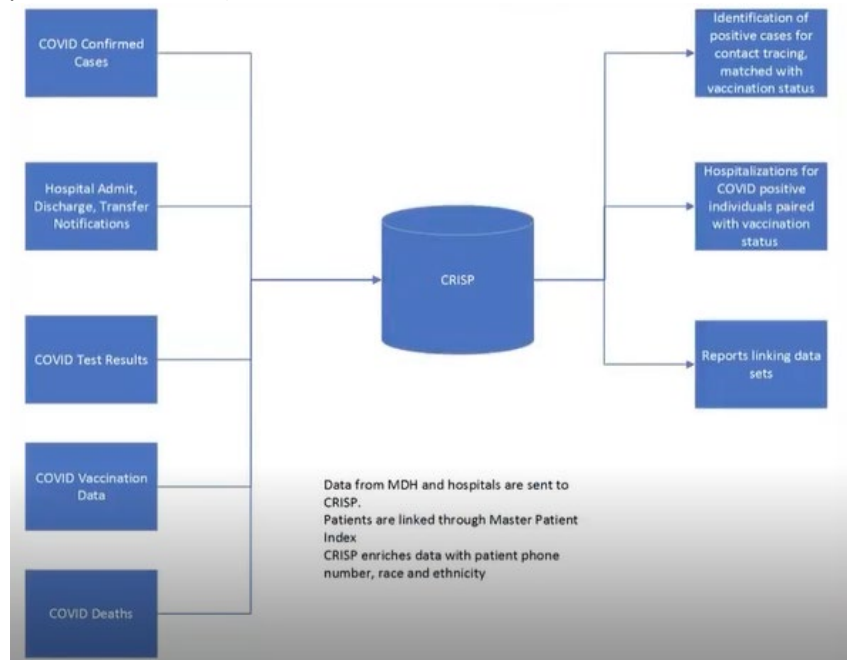
CRISP Services

- Point of Care – clinical query portal and in-context information to search patients’ prior records, monitor prescribing and dispensing of PDMP drugs, etc.

- Care Coordination – encounter notification service (ENS) to notify providers when MCO is in the ED
- Population Health Reports – CRISP reporting services (CRS), using case mix data and Medicare claims data to identify patients who could benefit from services, measure performance initiatives for QI and program reporting, and coordinate with peers on behalf of patients who see multiple providers.
- Public Health Support – deploying services in partnership with MDH, DC DOH, and WV BPH to enable researchers to appropriately access aggregated data and manage cohort studies, housing the prescription drug monitoring program (PDMP) for MD
- Program Administration – making policy discussions more transparent and informed, supporting care redesign programs.

Data Sources Linked and Enriched Through CRISP

- Claims and hospital data with more race and ethnicity enriches other COVID data for better monitoring of disparities and outcomes.
- Support contact tracing for real-time identification of COVID positive cases.
- Support health departments to identify breakthrough cases and monitor these downstream (i.e., hospitalization, death).



COVID Tracking

- Linking data to longitudinally monitor changes in the pandemic.
- Regional reporting on confirmed cases to monitor hot spots.
- ImmuTrack to enable providers to identify unvaccinated patients.
- Linking datasets to identify breakthrough cases.
 - Post-vaccination infections, sequencing of infections, and vaccine products administered.

What do HIEs have to offer?

- Existing infrastructure to serve as a central hub for data reporting from providers to local, state, and federal health officials.
- Direct line of secure communication to providers and hospitals throughout the region.
- Impartial collaborators between state agencies and the health care community.
- Proven track record of privacy and security framework.
- Rapid development capabilities to quickly respond to changing health IT needs.

Data Visualization of the Week

Dr. Amar Bhat

- When asked “do you have an appointment scheduled to get COVID-19 vaccine, or not? IF NOT: How long do you think you will wait before getting a COVID-19 vaccine?”, more than a third of people responding they will “wait and see” plan to get the COVID vaccine within three months, but another third will wait over a year.

