Data Modernization Workforce Acceleration Initiative (WAI) Public Health Training Recommendations

Optional Training Recommendations

The following training opportunities are meant to serve as deeper dives into topics that are broken out based on the sort of projects or work WAI placements may be working on. Some training options fit under more than one category and may be repeated.

Domain, Role and/or Project Specific:

Disease Surveillance System and data flow improvements

Disease surveillance system, data exchanges related to disease reporting, ingestion of data into Disease Surveillance Systems

1. Core public health data systems - Disease surveillance systems
2. Data Exchanges related to Disease Surveillance
    a. eCR
    b. ELR
3. Standards for Disease Surveillance
    a. Deeper dive on HL7 2.5.1 (ELR)
    b. Deeper dive on HL7 CDA (eCR)
    c. Deeper dive on FHIR eCR.
4. Patient matching
    a. Patient demographic record matching
    b. Patient/Person identification and matching
    c. Interoperable digital identity and patient matching
    d. Privacy protecting Record Linkage (PPRL)
    e. Patient matching blogs from public health perspective

Data Exchange infrastructure improvements

Data Exchange hubs, routing of data, preparing data for ingestion to various systems. TEFCA related project.

1. Deeper dive on terminology standards
    a. SNOMED
    b. LOINC
    c. ICD-10
    d. PHIN VADS and VSAC
2. The roles of HIEs. Deeper dive on QHINs and TEFCA.
3. Deeper dive on USCDI+

Syndromic surveillance improvements

1. Deeper dive on syndromic surveillance, NSSP and Biosense.
    a. Syndromic Surveillance for New Users
    b. Syndromic Surveillance 101
    c. Introduction to Syndromic Surveillance Methodology
2. Standards for syndromic surveillance
    a. HL7 2.5.1 ADT messages
    b. HL7 2.5.1 NSSP messages
3. Syndromic Surveillance 101: Intro to R for Health Surveillance

Data Governance projects

1. Data governance for public health
2. Data and IT Governance
3. Deeper dive on USCDI+
4. Patient matching
    a. Patient demographic record matching
    b. Patient/Person identification and matching
    c. Interoperable digital identity and patient matching
    d. Privacy Protecting Record Linkage (PPRL)
    e. Patient matching blogs from public health perspective
5. Specific state regulations related to data collection and dissemination
6. Deeper dive on public health law and policies
    a. Public Health Law: Past & Present
    b. Public Health Law 101
    c. Introduction to Legal Epidemiology
    d. Introduction to Legal Mapping
    e. Advanced Legal Epidemiology
    f. How Federal Policies are Made (rulemaking and public comment process) (create free CSTE Learn account and enter course title into search bar)
7. Finding a Way Forward: How to Create a Strong Legal Framework for Data Integration
8. Health Data Utility (HDU) Framework
    a. Guide to implementation
    b. Draft HDU supplement version 1.0

FHIR projects

1. Deeper dive on FHIR standards applicable to public health
    a. HL7 FHIR Fundamentals Course
    b. Public Health FHIR Playbook
2. eCR FHIR IG (if applicable to the project)
3. Cancer FHIR IG (if applicable to the project)
4. Deeper dive on Helios activities and the FHIR use cases for public health
5. HELIOS FHIR® Accelerator for Public Health

Centralized data hubs and dashboards. Data lakes

1. Deeper dive on dataset used for population data
    a. Social Vulnerability Index (SVI)
    b. Census data
    c. National Vital Statistics System (NVSS)
2. Patient matching
    a. Patient demographic record matching
    b. Patient/Person identification and matching
    c. Interoperable digital identity and patient matching
    d. Privacy protecting Record Linkage (PPRL)
    e. Patient matching blogs from public health perspective
3. Statistical and data analysis in public health
4. Data utilization
5. Data Visualizations
    a. Data Visualization and mapping
6. Finding a Way Forward: How to Create a Strong Legal Framework for Data Integration

IIS and data exchange improvements

1. Core public health data systems -IIS
2. AIRA IIS 101 Video
3. Data Exchanges related to Immunizations
    a. Fundamentals of IIS: Interoperability
    b. IZ Gateway
4. Standards for Immunizations
    a. IIS Functional Standards
    b. Deeper dive on HL7 2.5.1 (ACK, VXU, QBP/RSP)
        i. AIRA on demand, e-learning course: HL7 v2.5.1 Acknowledgment (ACK) Messages and Their Role in Ensuring Immunization Interoperability
        ii. AIRA Interoperability Course Series
        iii. AIRA HL7 Immunization User Group
        iv. PHII Fundamentals of IIS: HL7 Basics
        v. PHII Advanced HL7 for IIS
    c. Bulk FHIR queries
        i. HLN presentation from AIRA National Meetings
5. Patient matching
    a. Patient demographic record matching
    b. Patient/Person identification and matching
    c. Deduplication - Best Practices report
    d. Interoperable digital identity and patient matching
    e. Privacy protecting Record Linkage (PPRL)
    f. Patient matching blogs from public health perspective
    g. AIRA Smarty User Group
6. Data quality
    a. Fundamentals of IIS: Data Quality

   b. IIS Data Quality Blueprint
7. Data utilization (Using IIS data)
   a. AIRA IIS Data Analyst Collaborative and Forum
   b. PHII Immunization Evaluation and Forecasting
8. Onboarding
   a. AIRA Provider Onboarding for IIS Course

Vital record systems and data exchange improvements

1. Core public health data systems - Vital Records
2. National Vital Statistics System (NVSS) Modernization Community of Practice
   a. Birth and Death reporting to public health
   b. Reporting to NVSS
3. Standards for vital records

Other, topic specific

- Deeper dive on Cancer reporting and data
  - Standard CDA for cancer reporting
- Deeper dive on National Trauma Data Bank
- Deeper dive on LIMS and Lab data exchanges (i.e ETOR)
- Deeper dive on Newborn Screening
- Deeper dive on Chronic Diseases
- Cloud Migration
- Deeper dive on public health law and policies
  - Public Health Law: Past & Present
  - Public Health Law 101
  - Introduction to Legal Epidemiology
  - Introduction to Legal Mapping
  - Advanced Legal Epidemiology
  - How Federal Policies are Made (rulemaking and public comment process) (create free CSTE Learn account and enter course title into search bar)
- Deeper dive on Communication and Change Management
- Designing and Managing Public Health Information Systems: 8 Steps to Success
- Deeper dive on Tribal Public Health
  - Course: Understanding Tribal Treaties and Reserved Rights
    - Understanding Tribal Treaties and Reserved Rights (transcript & highlights)
- ONC Health IT Training Resources (expansive list of resources on broad topics such as interoperable health IT systems, public health IT, healthcare data analytics, quality improvement, project management, privacy and security)
- PHF Data Science and Informatics Training
- CSTE/Kahuina Consulting Course: “Overview of Health Information Technology (Health IT) and Health IT Certification” (create free account to log into learn.cste.org and enter course title in search)