What is the Right Staff to Support and Maintain IIS Data Quality?

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American Immunization Registry Association (AIRA) National Meeting

April 26-27, 2022

Presentation Objectives

Today participants will learn:

- How to use the IIS Core Competencies

- How to use the workforce classifications

- The workforce classifications needed to promote high IIS Data Quality

- The competencies needed for IIS Data Quality roles

IIS Competencies and Workforce Classifications

Using the Competencies

- Assess Your Current Workforce

- IIS Competency Model
  - Defines each competency
  - Includes knowledge, skills and abilities statements for each competency
  - Links to associated reference documents for knowledge, skills, and abilities statements when available

Using the Competencies to Build Your Workforce

Workforce Classifications

- IIS Manager
- Testing Analyst
- Data Entry Deduplication Specialist
- Data Extract Analyst
- Data Quality Analyst
- Help Desk Technician Level 1
- Help Desk Technician Level 2
- Interoperability Analyst
- Trainer
- Project Manager
- Business Analyst

Using the Workforce Classifications

- [IIS Workforce Classifications](#):
  - Provide a general job description
  - List competencies for the role
    - Knowledge Statements
    - Ability Statements

- Use the classifications to:
  - Assess current workforce
  - Build job descriptions
  - Review resumes for open roles

Workforce Classifications

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Workforce Classifications for High Data Quality

High Quality Data as Defined in the IIS Data Quality Blueprint

The IIS Data should be:

- Available

- Complete

- Valid

- Timely

- Accurate

- Consistent

- Unique
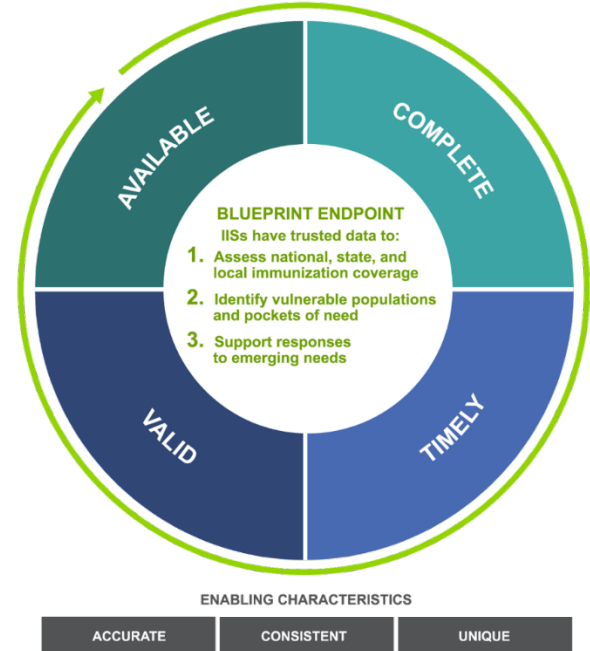
Sample IIS Staffing Model

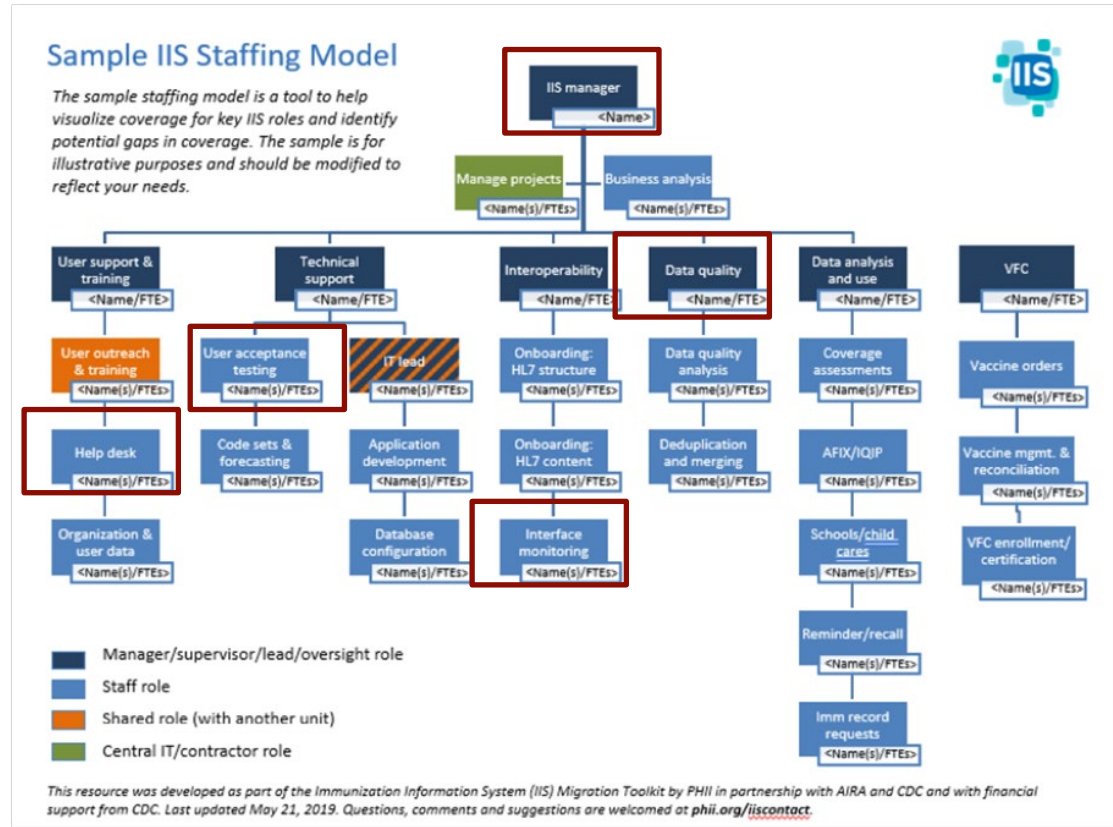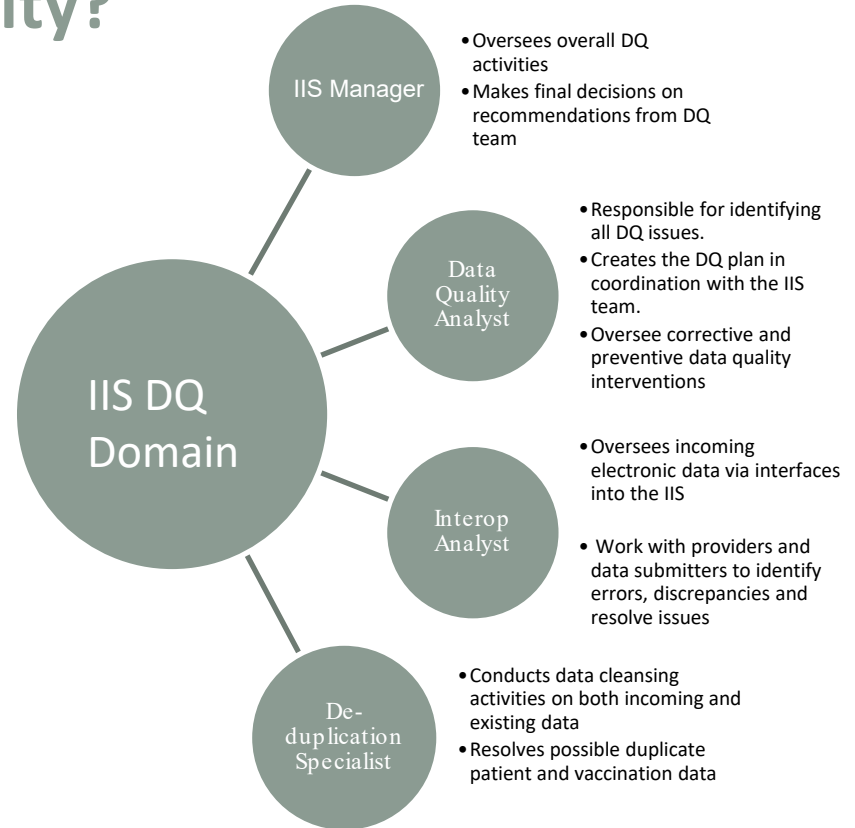A suggested staffing model that the Public Health Informatics Institute (PHII) created as part of the IIS migration toolkit to help programs consider all IIS workforce roles that might help them develop and maintain an IIS to support their Immunization Program.

[Sample IIS Staffing Model - PHII](#)

Sample IIS Staffing Model

The sample staffing model is a tool to help visualize coverage for key IIS roles and identify potential gaps in coverage. The sample is for illustrative purposes and should be modified to reflect your needs.

- IIS manager — <Name>
- Manage projects — <Name(s)/FTEs>
- Business analysis — <Name(s)/FTEs>

- User support & training — <Name/FTE>
- Technical support — <Name/FTE>
- Interoperability — <Name/FTE>
- Data quality — <Name/FTE>
- Data analysis and use — <Name/FTE>
- VFC — <Name/FTE>

- User outreach & training — <Name(s)/FTEs>
- User acceptance testing — <Name(s)/FTEs>
- IT lead — <Name(s)/FTEs>
- Onboarding: HL7 structure — <Name(s)/FTEs>
- Data quality analysis — <Name(s)/FTEs>
- Coverage assessments — <Name(s)/FTEs>
- Vaccine orders — <Name(s)/FTEs>

- Help desk — <Name(s)/FTEs>
- Code sets & forecasting — <Name(s)/FTEs>
- Application development — <Name(s)/FTEs>
- Onboarding: HL7 content — <Name(s)/FTEs>
- Deduplication and merging — <Name(s)/FTEs>
- AFIX/IQIP — <Name(s)/FTEs>
- Vaccine mgmt. & reconciliation — <Name(s)/FTEs>

- Organization & user data — <Name(s)/FTEs>
- Database configuration — <Name(s)/FTEs>
- Interface monitoring — <Name(s)/FTEs>
- Schools/child cares — <Name(s)/FTEs>
- VFC enrollment/certification — <Name(s)/FTEs>

- Reminder/recall — <Name(s)/FTEs>
- Imm record requests — <Name(s)/FTEs>

Legend:
- Manager/supervisor/lead/oversight role
- Staff role
- Shared role (with another unit)
- Central IT/contractor role

This resource was developed as part of the Immunization Information System (IIS) Migration Toolkit by PHII in partnership with AIRA and CDC and with financial support from CDC. Last updated May 21, 2019. Questions, comments and suggestions are welcomed at phii.org/iiscontact.

What Roles Does a Program Need to Promote High Data Quality?

- IIS Manager

- Data Quality Analyst

- Interoperability Analyst

- Data Entry Deduplication Specialist

IIS Manager
- Oversees overall DQ activities
- Makes final decisions on recommendations from DQ team

IIS DQ Domain

Data Quality Analyst
- Responsible for identifying all DQ issues.
- Creates the DQ plan in coordination with the IIS team.
- Oversee corrective and preventive data quality interventions

Interop Analyst
- Oversees incoming electronic data via interfaces into the IIS
- Work with providers and data submitters to identify errors, discrepancies and resolve issues

De-duplication Specialist
- Conducts data cleansing activities on both incoming and existing data
- Resolves possible duplicate patient and vaccination data

Competencies Needed to Promote High Data Quality

- Leadership and Management
- Law and Policy
- Communication
- Data Use
- Data Quality
- Interoperability
- Information Systems Managemer
- Training

Knowledge, Skills and Abilities Related to Data Quality

- **Knowledge Statements:**
  - Knowledge of immunization terminology and practices, and the data elements that support them
  - Knowledge of HL7 and other standards, best practices, and general guidance for accurately and securely exchanging data between an IIS and other systems, including EHRs and other IIS
  - Knowledge of standardized IIS business rules and best practices
- **Skills and Abilities Statements:**
  - Ability to apply local and national standards consistently
  - Ability to quickly learn data fields commonly used in clinic practices to record vaccination encounters
  - Excellent data analysis skills and ability to quickly learn new terminology
  - Ability to solve complex data quality issues requiring collaboration among multiple internal and external partners

Workforce Resources

- [Data Quality Blueprint](#) – The IIS Data Quality Blueprint is a guide to help immunization programs address and advance data quality within IISs.

- [IIS Competency Model](#) – The IIS Core Competency Model presents a framework of core competency domains for IIS staff, offering a pathway for IIS performance success to align with national immunization goals and recognized operational strategies.

- [IIS Staffing Model](#) – The sample staffing model is a tool to help visualize coverage for key IIS roles and identify potential gaps in coverage.

- [IIS Workforce Classifications](#) – These sample role descriptions support the IIS Core Competency Model in providing guidance for identifying staffing needs and subsequent recruiting for IIS.

Questions?

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The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.