



Immunization Information System (IIS) Manager

Sample Role Description

March 2016

Note: This role description is meant to offer sample language and a comprehensive list of potential desired responsibilities with corresponding knowledge, skills and abilities (KSAs). Actual position descriptions should filter out information that is not applicable for a specific position or role. Depending on staffing levels, several roles may be combined within a single position, or several positions may fill the same role. The term “Immunization Information System” or “IIS” may be replaced with “Registry” within position titles in some jurisdictions.

Manager

IIS Manager is a sample role description for a managerial or supervisory position typically found in a mid-level management classification series.

Scope

The person fulfilling this role is responsible for providing leadership and managing all operations across IIS, including staff supervision, IIS data use oversight, legislative and policy interpretation, grant application preparation, and fulfillment of relevant programmatic and funding requirements. This position is responsible for all technical and management aspects of the program that involve providers, health plans and other private and public agencies throughout the state. The person in this role may also provide formal supervision to technical staff; however, if technical staff are supervised by Central Information Technology (IT) staff or by a vendor, the IIS Manager may provide more day-to-day oversight or coordination of these positions. This role also interfaces regularly with the Centers for Disease Control and Prevention (CDC) for guidance on technical, policy, operational and reporting issues.

Budget Authority

This role may oversee administration of budgets related to personnel, hardware, hosting, support and maintenance, and development and implementation of multiple technical and programmatic functions and enhancement projects and products in a highly complex environment.

Position Titles

The following example job titles were gathered from existing positions at state and local health agencies:

- IIS Manager
- IIS Director
- IIS Coordinator
- IIS Unit Supervisor

Relationships

If the IIS exists within the jurisdiction’s immunization program, which is typically but not always the case, the person in this position reports to a leadership position within the immunization program, most often the Immunization Program Manager. This position works very closely with the immunization program management team, particularly in the areas of AFIX, vaccine management, research and surveillance, and school law. This position may also work closely with Public Health Program Managers, Public Health Information System Managers and Public Health Informatics staff and may serve as an IIS and Immunization Program representative within the larger Public Health venue. This position may have frequent interaction with managers and staff within the public health division, health and human service agencies, private and public health care providers, other health departments, HMOs and health plans, community partners, and

federal agencies regarding interoperability, information systems, data quality, data use, provider recruitment and grants management. This position interacts frequently with state and local health department officials, and state public health leadership (center directors) to inform operational and technical development, set strategic plans, and coordinate intra-program, intra-agency and intra-state activities involving immunization information. This position also interacts with national partners including staff within the CDC/NCIRD IIS Support Branch, the CDC Program Operations Branch staff, the American Immunization Registry Association (AIRA), and the Office of the National Coordinator (ONC). This position may also have frequent interactions with IIS managers from other states for the purposes of standards development and adoption, best practice information exchange, and developing interstate data exchange capacity.

Decision Making Authority

This position exercises considerable independent judgment in carrying out responsibilities within a highly collaborative environment. Decision making generally requires substantial negotiation and compromise with a variety of considerations, including the context imposed by applicable laws, statutes, rules, interests of stakeholders, available data, and resources. Decision making authority is commonly characterized as follows:

- Hires and manages IIS program personnel.
- Hires or participates in the hiring process for technical personnel.
- Allocates resources and drafts and modifies budgets.
- Analyzes, recommends and/or determines prioritization on system enhancements and development based on Immunization Program priorities.
- Contributes to, makes recommendations, or establishes program or state level policy and practices related to data management, security, privacy, and procurement.
- Supports public and private providers in meeting statutory requirements as well as programmatic needs for data submission and data access.
- Identifies and enables use of programmatic data and information to improve organizational processes and performance.
- Makes recommendations regarding policy and fiscal decisions that affect local agencies, public and private providers, and other state partners.
- Formulates corrective action on behalf of agency for client, customer, or beneficiary complaints or conflicts.
- Contributes to the development and adoption of local and national standards for IIS operations and interoperability, and recommends best practices.
- Decisions regarding grant or cooperative agreement applications, implementation and/or reporting processes.

This position may provide input into, and exercise independent action on a wide range of activities including, but not limited to:

- The development or modification of statewide legislation or policy.
- Approaches to IIS interoperability, including data linking and data system integration across public health.
- Decisions directly impacting the agency budget and policies.

Major Duties and Responsibilities

This list contains examples of duties and responsibilities that may be associated with an IIS manager role. This list offers many possible duties and responsibilities from which to select in order to create a position most appropriate to your program needs and your human resource requirements.

Operations Management

- Provide manager level leadership to a program, office, or section for IIS.
- Represent the IIS through presentations and written materials locally and nationally.
- Oversee or manages program-level projects and coordinates priorities within an IIS.
- Assist with strategic planning for IIS and Immunization Program, translates agency strategy into operational practices.
- Ensure operations are managed effectively to meet organizational/agency needs.
- Prioritize operational tasks and activities based on available funding, mandates, program deliverables, relative value, and staff skills for IIS.
- Develop strategies, plans, and procedures to implement program and funder policies and initiatives.
- Maintain and update system and program documentation.
- Assist with or lead implementation of corrective actions for IIS.
- Address needs such as preparation and assistance with purchase orders of hardware, software, and equipment; follow-up for orders (including delivery dates and billing problems); coordination of installation of new equipment; resolution of vendor disputes; and maintenance of equipment.
- Participate in or lead quality improvement or quality assurance efforts for IIS.
- Monitor operations and direct the use of performance measures to ensure a high degree of effective service delivery.
- Recommend business actions to improve operations, processes, fiscal accountability, employee satisfaction, and overall organizational performance.
- Develop and document policies and procedures in compliance with applicable laws, statutes or agency guidance.
- Provide feedback from customers, stakeholders, and beneficiaries to appropriate teams and/or leadership for unresolved issues requiring escalation within the agency.
- Monitor timelines, performance, and customer satisfaction.
- Coordinate or oversee marketing, promotion, or training activities.
- Process requests or resolve issues from customers (internal and external), providers, community organizations, and other stakeholders.
- Resolve operational issues.
- Establish and implement change management across IIS, and supports change management across Immunization Program.
- Oversee activities related to help desk or provider relations.
- Provide technical assistance to users.
- Engage nationally in efforts to develop and inform IIS-specific standards and best practices.
- Coordinate priorities for IIS development and enhancement through a Change Control Team (CCT), Change Control Board (CCB), or similar configuration to collect program and user input.
- Develop business requirements for enhancements to the IIS.

Human Resources Management

- Supervise operational, technical and/or administrative personnel including determining workload, delegating assignments, and monitoring performance.
- Assess training needs for individuals and teams and arranges for appropriate training.
- Write and/or review drafts of employee position descriptions and approves assignment of work tasks.
- Assess the qualification of candidates to recruit and hire employees.
- Establish performance standards, evaluates employee performance.
- Develop strategies for improving performance and taking action when needed regarding disciplinary actions, and suspend or discharge as necessary, according to the requirements of applicable statutes, policies or contracts.

- Address grievances of employees according to the requirements of applicable statutes, policies or contracts.
- Determine individual employee workload, assigns specific tasks or assignments, and monitors performance of employees, contractors, or temporary staff.
- Evaluate new or increasing volume of work and works with human resources to establish new positions.

Financial/Budget/Contract Management

- Identify and procure funding through grants, partnerships, and other funding sources.
- Develop or oversee preparation of detailed budgets for agency submission for legislative requests, grants, applications, and contracts.
- Provide, oversee, or coordinate/interface with accounting services for activities related to accounts payable, receivable, invoicing, and processing of purchase orders.
- Prepare or reviews budget reports.
- Approve budget expenditures for IIS.
- Monitor expenses against budget.
- Approve changes to budget.
- Respond to requests for information about budgets for IIS.
- Oversee vendor contracts and scopes of work.
- Approve and authorizes payment for contract invoices.

Informatics/Technical Management

- Supervise and/or oversee planning and collection of data and information.
- Plan, coordinate, and establish methods, processes and standards for work performed by staff to ensure information needs of end users are achieved.
- Leverage and/or seek to influence standards, as appropriate, and ensures consistency with national standards and certification initiatives to improve health data use to meet the agency, partner, and stakeholder needs to improve population health.
- Support adoption of data standards that facilitate interoperability.
- Serve as a liaison for Health Information Exchange (HIE) initiatives at the state, jurisdictional, or local level.
- Implement policies related to national initiatives such as the Accountable Care Act, HITECH, and Meaningful Use program.
- Provide input into federal rule making or other policy making activities related to informatics practice and health reform as requested.
- Identify and engage stakeholders required for informatics projects related to health information exchange, Accountable Care Act, and public health reporting for CMS Meaningful Use Program.
- Develop and/or assists with studies, assessments, evaluations of data collection, data management, adoption of technology, change management issues, and use of information to improve population health.
- Coordinate system design and analysis with vendors to ensure information needs of the program, department and other end users are met.
- Explore and recommend technology solutions and/or automation of key processes.
- Coordinate, manage or oversee data and/or information management (i.e. de-duplication of records, data purges, requests for information, processing user rights, assignment of log-in, consumer access to information).
- Coordinate, manage, oversee or ensure compliance with HIPAA, FERPA, and privacy and security practices.
- Research and/or consider recommendations for hardware, software, and other technology enhancements to support program objectives.

- Ensure implementation of best practices related to electronic data transmission, storage, HIPAA, information security standards, data archiving practices, records management, and other aspects of electronic data management.
- Provide management support for applications and database needs, enhancement and system upgrades, performance evaluation of information systems, requirements documentation and business process improvement activities.

Vendor/Central IT Management

- Negotiate and/or manage vendor contract or Central IT service agreements for maintenance, support, and enhancements of the IIS system.
- Monitor and review contract deliverables and vendor invoices to ensure contract compliance.
- Draft contract amendments and change orders.
- Communicate with managers and vendor about potential or existing contract issues.
- Interface and collaborate with Department of Justice (DOJ) and the Office of Contracts and Procurement regarding contract matters.

Standard Setting, National Involvement

- Engage and provide input to the development of national standards and best practices regarding all areas of IIS development and operations, with particular emphasis on data quality and interoperability standards.
- Represent IIS at national meetings and conferences.

Functioning within an interdisciplinary team environment

- Consistently treat customers, stakeholders, partners, vendors and co-workers with dignity and respect.
- Create and maintain a work environment that is welcoming and respectful of diversity.
- Set clear guidelines and models expected professional behaviors.
- Other tasks as assigned.

Key Competencies

This list contains the key competency areas with corresponding examples of knowledge, skills, and abilities that may be associated with the IIS Data Extract Analyst role. It is not all inclusive and may vary from position to position.



Standards and Interoperability

Applies informatics standards to ensure interoperability between disparate information systems.

Knowledge Statements:

- Knowledge of immunization terminology and practices, and the data elements that support them.
- Knowledge of relevant IIS standards, including HL7 2.x and SOAP/Web Services.
- Knowledge of IIS best practice documentation developed by the Modeling of Immunization Registry Operations Workgroup (MIROW).
- Knowledge of national initiatives such as Meaningful Use, and their impact on IIS and health information exchange.
- Knowledge of standardized IIS business rules and best practices.
- Knowledge of public health reporting standards.
- Knowledge of Clinical Decision Support Specifications developed by CDC.

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.
- Ability to quickly learn new terminology.



Project Management

Practices project management and program management techniques to engage stakeholders and team members in achieving goals and expectations.

Knowledge Statements:

- Knowledge of principles, methods and standards of project management.
- Knowledge of diverse IIS stakeholders and funding mechanisms.
- Knowledge of the outputs of computer query and reporting tools, such as SQL, Crystal Reports, Business Objects or Excel to support technical staff in running reports.
- Knowledge of change management.
- Knowledge of strategies for effective planning and management of informatics projects/programs based on business and management requirements.

Skills Statements:

- Skill to develop specific goals and plans to prioritize, organize, and accomplish work.
- Skill to document status and outputs of projects and processes.
- Skill to engage in testing of information solutions using appropriate methodologies and techniques.
- Skill to coordinate diverse activities to ensure completion of projects, tasks and assignments.
- Skill to apply fact-finding and work measurement techniques to organization systems.
- Skill to synthesize diverse facts, opinion and materials into usable work plans.
- Skill to apply quality management and improvement tools and processes to operational problems.

- Skill to oversee testing of information solutions using appropriate methodologies and techniques.
Skill to manage information system projects.

Abilities Statements:

- Ability to balance multiple, competing program demands.
- Ability to establish long-range objectives and specify the strategies and actions to achieve them.
- Ability to synthesize voluminous and diverse facts, opinions, and materials into usable work plans.

**Information Systems**

Applies fundamental knowledge of hardware, software (including business rules and algorithms), and network infrastructure essential to ensuring that public health requirements are met.

Knowledge Statements:

- Knowledge of health information systems.
- Knowledge of large databases and database functions/utilities.
- Knowledge of electronic data transfer methods.
- Knowledge of automated software applications such as IIS.
- Knowledge of relevant software and computer query and reporting tools, such as SQL, Crystal Reports, Business Objects or Excel to run reports.
- Knowledge of health related vendor products such as EHRs.
- Knowledge of analyzing and proposing system development or enhancement tasks.
- Knowledge of basic system performance monitoring and tuning techniques.
- Knowledge of computer hardware and system operations.

Skills Statements:

- Skill in use of common software products such as Word, PowerPoint and Excel.
- Skill to adopt complex, modern information technology and communication tools.

Abilities Statements:

- Ability to solve complex issues requiring coordination, technical ability, and knowledge of computer and information systems to evaluate alternatives.

**Policy**

Ensures that information projects adhere to relevant laws, rules, policies, procedures and regulations.

Knowledge Statements:

- Knowledge of applicable laws, statutes, policies and procedures regarding public health and health information.
- Knowledge of types of agreements such as data use agreements and memorandums of understanding that govern data access and sharing.
- Knowledge of policies and Standard Operating Procedures (SOPs) specific to IIS operations.
- Knowledge of records management.
- Knowledge of recommended schedules.
- Knowledge of information security and privacy laws/policies as well as appropriate procedures to manage confidential data.
- Knowledge of the executive and legislative decision making process.

Skills Statements:

- Skill to appropriately apply IIS policies and procedures to specific situations.

- Skill to use relevant information to determine whether events or processes comply with laws, regulations, standards or procedures.
- Skill to develop standard operating procedures.
- Skill to interpret laws, rules, policies and procedures and applying interpretations to specific situations.

Abilities Statements:

- Ability to apply public health laws, regulations, and policies specific to the Immunization Program.
- Ability to quickly learn processes, and practices.
- Ability to recommend modifications or enhancements to systems and policies.
- Ability to establish procedures for diagnosing and solving technical problems.
- Ability to use relevant information and individual judgment to determine whether events or processes comply with laws, regulations, or standards.

**Communication**

Practices active, effective communication between IT, public health and other relevant stakeholders.

Knowledge Statements:

- Knowledge of methods and procedures of technical report writing.
- Knowledge of methods for presenting statistical, demographic, programmatic and scientific information to professional and lay audiences.

Skills Statements:

- Skill in using phone, email, fax, text messaging, instant messaging and other telecommunications methods.
- Skill in communicating in writing, orally, electronically and in person with linguistic and cultural proficiency.
- Skill in applying effective communication and group dynamic strategies in interactions with individuals and groups.
- Skill in communicating the role of public health within the health system and community to diverse audiences.
- Skill in effectively communicating the capabilities and limitations of information systems.
- Skill in collaborating with a wide range of internal and external stakeholders including policy makers, health care and social services, end users, agency leaders, and community.
- Skill in managing a high volume of incoming calls and requests from diverse stakeholders and populations.
- Skill in communicating orally to explain decisions, services, or programs.
- Skill in resolving problems through negotiation.
- Skill in stakeholder engagement and collaboration.

Abilities Statements:

- Ability to build mutual trust, respect and cooperation among team members.
- Ability to communicate effectively to technical and non-technical audiences in both written and oral methods.
- Ability to contribute as a strong member of a self-directed work team.
- Ability to develop constructive and cooperative working relationships with others, and maintain them over time.
- Ability to effectively express ideas orally and in writing using appropriate language and organizing ideas in an objective manner.
- Ability to translate or explain what information means and how it can be used.

- Ability to effectively communicate the capabilities and limitations of information technologies.
 - Ability to represent the Program as a staff person for project, advisory, or technical committees.
 - Ability to work effectively with senior-level decision-makers and their immediate staff members.
 - Ability to clearly explain public health informatics and programmatic policies, programs, and resources related to IIS.
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Analysis, Visualization & Reporting

Translates data to information and knowledge that leads to action using consistent analytic and reporting tools and techniques.

Knowledge Statements:

- Knowledge of techniques sufficient to collect, analyze, interpret and summarize data in a narrative or graphical format.
- Knowledge of the methods for analyzing and proposing system development tasks.
- Knowledge of business process analysis.

Skills Statements:

- Skill to analyze business needs and product requirements to create or design a system enhancement.
- Skill to determine how a system should work and how changes in conditions, operations and the environment will affect the outcomes.
- Skill to analyze business needs and product requirements to create or design a system enhancement.
- Skill in writing clear and concise narratives and statistical summaries.
- Skill in composing written and oral responses to inquiries, narrative reports, instructional materials.

Abilities Statements:

- Ability to apply general rules to specific problems.
 - Ability to exercise appropriate judgment in determining when an issue or problem needs referral to management or other staff.
 - Ability to combine pieces of information to form general rules or conclusions.
 - Ability to analyze, evaluate and solve procedural problems
 - Ability to interpret technical materials to evaluate alternative technical solutions to address agency needs.
 - Ability to research and design the techniques, methods, and principles used in complex data analysis.
 - Ability to understand the implications of new information for both current and future problem-solving and decision-making.
 - Ability to read and interpret technical materials to better assist end users.
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Evaluation

Applies rigorous methods to evaluate the effectiveness of workflows and information technology.

Knowledge Statements:

- Knowledge of general data quality concepts.
- Knowledge of detailed quality assurance and improvement methodology.

Skills Statements:

- Skill to identify complex problems and review related information to develop and evaluate options and implement solutions.
- Skill to identify measures or indicators of system performance and the actions needed to improve or correct performance, relative to the goals of the system.

Abilities Statements:

- Ability to evaluate information against a set of standards of information integrity and comparability.
- Ability to use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- Ability to use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- Ability to evaluate work products to ensure program objectives and agency needs are met.

**Principles & Strategy**

Applies strategic thinking, leadership techniques and informatics principles to public health information needs.

Knowledge Statements:

- Knowledge of the development of IIS systems over time.
- Knowledge of the multiple purposes and audiences that leverage IIS data and functionality, and the methods by which they access IIS data.
- Knowledge of the basic concepts of vaccine management, such as inventory and accountability.
- Knowledge of healthcare systems and practices.
- Knowledge of management practices related to business operations including human resources, budgeting and financial analysis, and performance improvement.
- Knowledge of methods and techniques of the analysis and reporting of financial data.
- Knowledge of principles, methods and standards of program management.
- Knowledge of principles, practices, and trends in public administration, business operations, and management.
- Knowledge of procurement of goods and services through contract agreements and experience administering standard contracts or agreements.
- Knowledge of strategies for achieving effective data acquisition, management, quality, storage, use, and application to address population health needs.
- Knowledge of the State budgetary process, including analysis of state and federal revenues and expenditures.
- Knowledge of theory and principles of organizational systems and the methods of application to government operations.
- Knowledge of theory, principles and practices of organizational behavior, analysis and evaluation.

Skills Statements:

- Skill to monitor or assess performance of other individuals or organization systems to make improvements or take corrective action.
- Skill in effective grant writing.
- Skill in human relations and management.
- Skill to apply principles, theories, and practices of public administration and management to support health informatics practices to meet organizational objectives.
- Skill to use grant/solicitation/collaboration software and/or online services and other systems as designed to support grant management, accounting and reporting.

Abilities Statements:

- Ability to work independently with little or no supervision.
 - Ability to work well in a high-pressure environment.
 - Ability to apply high attention to detail to work products.
 - Ability to use independent judgment, decision making and problem resolution to perform technical, operational, or administrative functions.
 - Ability to learn the organizational structures, roles, and interrelationships of local public health agencies, private health care organizations, private practices, school health and health plans.
 - Ability to correctly assess the political and institutional environment in which decisions are made and implemented.
 - Ability to collaborate with governmental and non-governmental organizations to meet the information needs of a wide range of users and data sharing partners.
 - Ability to recommend, select and utilize practices and tools in support of public health data acquisition, management, analysis, planning and reporting.
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Training

Effectively applies concepts of adult learning theory to educating a broad range of technical, programmatic and clinical audiences.

Knowledge Statements:

- Knowledge of techniques and methods of disseminating technical and programmatic information with external partners and stakeholders.

Skills Statements:

- Skill in creating and implementing trainings and presentations.
- Skill in developing and writing effective training and promotional materials.
- Skill in the development and use of distance training methods, including conference call and webinar tools.

Abilities Statements:

- Ability to prepare, present and train on highly complex technical material and issues to non-specialists.



Immunization Information System (IIS) Data Extract Analyst

Sample Role Description

March 2016

Note: This role description is meant to offer sample language and a comprehensive list of potential desired responsibilities with corresponding knowledge, skills and abilities (KSAs). Actual position descriptions should filter out information that is not applicable for a specific position or role. Depending on staffing levels, several roles may be combined within a single position, or several positions may fill the same role. The term “Immunization Information System” or “IIS” may be replaced with “Registry” within position titles in some jurisdictions.

Data Extract Analyst

IIS Data Extract Analyst is a role typically found in an experienced, advanced analyst series. The position typically encompasses both operational and policy responsibilities related to data and data use.

Scope

The person fulfilling this role is responsible for extracting, analyzing, and/or presenting the IIS data in response to routine, ad hoc queries and/or special studies. The person in this role develops, implements, maintains and updates data access and data use protocols for the IIS, and oversees the data use agreements process and documents. This role is also responsible for meeting designated reporting needs mandated by specific grant, funding and administrative requirements, including Prevention and Public Health Fund grants, Sentinel Grants, the annual Immunization Program Base Grant, and other reporting requirements as designated.

Budget Authority

This role may offer input into budget issues or contribute to grant writing or reporting efforts that involve current or future funding.

Position Titles

The following example job titles were gathered from existing positions at state and local health agencies:

- Data Extract Coordinator
- Informatics Specialist
- Informatician
- Informaticist
- Epidemiologist
- Data Use Coordinator
- Research Analyst
- Data Analytics Specialist

Relationship

The person in this role typically reports to the IIS Manager. Internally, this role works very closely with the rest of the IIS team, as well as the research and surveillance team. The person in this position is also responsive to administrative and executive requests for data analytics. Externally, this role works closely with end users in responding to routine and ad hoc requests, as well as special studies.

Decision Making Authority

This role exercises considerable independent judgment in carrying out responsibilities within a highly collaborative environment. Decision making generally requires substantial negotiation and compromise with a variety of considerations, including the context imposed by applicable laws,

statutes, rules, interests of stakeholders, available data, and resources. Decision making authority is commonly characterized as follows:

- Applies laws, rules, policies and best practices to develop data use protocols.
- Follows procedures that support the confidentiality and security of IIS data at all times.
- Discusses and recommends optimal analysis plan to respond to requests for data and information.
- Determines and recommends prioritization of data requests.
- In collaboration with the Data Quality Analyst, investigates, recommends resolution for and resolves data quality issues that arise in the course of data use.

Major Duties and Responsibilities

This list contains examples of duties and responsibilities that may be associated with a Data Extract Analyst role. This list offers many possible duties and responsibilities from which to select in order to create a position most appropriate to your program needs and your human resource requirements.

Data Extraction/Analysis

- Coordinate and monitor the methods and quality of IIS data extracts.
- Write and document programs and code to efficiently query IIS to extract data for analyses.
- Construct data sets, analyze data, and generate graphs, charts, and statistics to arrive at conclusions about the data.
- Conduct and lead routine and ad hoc data quality meetings and other standing committees as assigned.
- Plan and manage complex analytical projects.

Data Reporting

- Prepare operational reports and data summaries as needed.
- Write reports of findings and articles for publication including summary table, graphs, and charts.
- Explain the significance of data trends and findings to partners and program staff.
- Facilitate the development of agency performance measures.
- Manage reporting of grant benchmarking metrics.
- Develop and implement processes for creating and reporting grant metrics in a timely fashion, working with project team members and the grantor to ensure processes meet grant requirements.
- Extract and compile data from the IIS system and calculate grant metrics.
- Review metrics with project team members to ensure accuracy and resolve any issues.
- Submit grant metrics to grantor.

General Data Use

- Participate in the use of IIS data to target immunization services for populations statewide.
- Assist Program management by monitoring and tracking program and operational data.
- Participate on committees to gather information or plan studies to evaluate performance data
- Recommend refinement and development of operating procedures based on results of data analysis and study.

Presentations

- Present findings orally and in writing.
- Collaborate with others across Public Health in the development and presentation of local, statewide, and national trainings and presentations.

Operations and System Performance/Improvement

- Develop long and short range goals to impact and improve data operations and database functionality based on in-depth program knowledge.
- Design system enhancements based on evaluation.
- Develop and maintain standard operating procedures (SOPs).
- Coordinate and monitor the methods and quality of extracts using IIS data.
- Manage project steps to ensure participation of project team members and other stakeholders.
- Conduct and lead routine and ad hoc data use meetings and other standing committees as assigned.
- Prepare operational reports and data summaries as needed.
- In collaboration with training staff, coordinate the development of technical training and technical assistance materials, methods and tools for internal and external partners to assure proper implementation of program objectives and proper use of IIS data.
- Create and maintain documentation to support internal processes and cross-training.
- Design and implement recovery procedures for programming and processing errors.

Policy and Oversight

- Review and ensure compliance with IIS laws and administrative rules, and contribute to modifications of said laws as needed.
- Ensure that project information is accurate and complies with program objectives, grant guidelines, and statutory regulations.
- Evaluate forms and record system/application screens to ensure compliance with program intent and regulations.
- Coordinate communication with key project team members within Public Health.
- Work with multiple levels of Immunization and clinic staff to discuss project progress and resolve issues.

Technical Assistance/Training

- Provide support and technical assistance to Immunization Program partners and internal immunization program staff regarding data extracts, reports, and data processing within the IIS.
- Clarify technical specifications of data requests with partners.
- Interpret and assist in the implementation of grant objectives.
- Collaborate with the vendor, immunization program staff and outside partners to evaluate existing data and plan enhancements to outreach and training strategies based on evaluation.
- In collaboration with training staff, provide input into the design of training and training materials for clinics, vendors and health systems regarding their use of data from the IIS to assure proper implementation of program objectives.
- Collaborate in the development and presentation of local, statewide, and national trainings and presentations.
- Serve as a subject matter expert on IIS data analytic issues both locally and nationally as needed and by request.

Project Lead and Coordination

- Provide team leadership and coordination to IIS Extract/Data Use team to meet program and grant goals.
- Coordinate with other IIS and immunization program work groups as needed.
- Develop and maintain Standard Operating Procedures (SOPs) and data exchange specifications.
- Serve as a liaison between Internal Review Board (IRB) and organizations requesting immunization data.
- Coordinate IRB review process with data requestors.

Standard Setting, National Involvement

- Engage and provide input to the development of national standards and best practices regarding data exchange, with particular emphasis on HL7 and Web Services standards.
- Represent IIS at national meetings and conferences.

Functioning within an interdisciplinary team environment

- Consistently treats customers, stakeholders, partners, vendors and co-workers with dignity and respect.
- Creates and maintains a work environment that is welcoming and respectful of diversity.
- Sets clear guidelines and models expected professional behaviors.
- Other tasks as assigned.

Key Competencies

This list contains the key competency areas with corresponding examples of knowledge, skills, and abilities that may be associated with the IIS Data Extract Analyst role. It is not all inclusive and may vary from position to position.

Standards and Interoperability

Applies informatics standards to ensure interoperability between disparate information systems.

Knowledge Statements:

- Knowledge of immunization terminology and practices, and the data elements that support them.
- Knowledge of relevant IIS standards, including HL7 2.x and SOAP/Web Services.
- Knowledge of IIS best practice documentation developed by the Modeling of Immunization Registry Operations Workgroup (MIROW).
- Knowledge of national initiatives such as Meaningful Use, and their impact on IIS and health information exchange.
- Knowledge of standardized IIS business rules and best practices.
- Knowledge of public health reporting standards.

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
 - Ability to quickly learn new terminology.
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Project Management

Practices project management and program management techniques to engage stakeholders and team members in achieving goals and expectations.

Knowledge Statements:

- Knowledge of principles, methods and standards of project management.
- Knowledge of diverse IIS stakeholders and funding mechanisms.
- Knowledge of the principles of work organization and simplification.

Skills Statements:

- Skill to develop specific goals and plans to prioritize, organize, and accomplish work.
- Skill to document status and outputs of projects and processes.
- Skill to engage in testing of information solutions using appropriate methodologies and techniques.
- Skill in coordinating diverse activities to ensure completion of projects, tasks and assignments.
- Skill to apply fact-finding and work measurement techniques to organization systems.
- Skill to synthesize diverse facts, opinion and materials into usable work plans.

Abilities Statements:

- Ability to balance multiple, competing program demands.
 - Ability to establish long-range objectives and specify the strategies and actions to achieve them.
 - Ability to synthesize voluminous and diverse facts, opinions, and materials into usable work plans.
-

Information Systems

Applies fundamental knowledge of hardware, software (including business rules and algorithms), and network infrastructure essential to ensuring that public health requirements are met.

Knowledge Statements:

- Knowledge of health information systems.
- Knowledge of large databases and database functions/utilities.
- Knowledge of electronic data transfer methods.
- Knowledge of automated software applications such as IIS.
- Knowledge of relevant software and computer query and reporting tools, such as SQL, Crystal Reports, Business Objects or Excel to run reports.
- Knowledge of testing and troubleshooting techniques.

Skills Statements:

- Skill in use of common software products such as Word, PowerPoint, Excel.
- Skill to adopt complex, modern information technology and communication tools.
- Skill in drafting end user and technical documentation.

Abilities Statements:

- Ability to solve complex issues requiring coordination, technical ability, and knowledge of computer and information systems to evaluate alternatives.
-

Policy

Ensures that information projects adhere to relevant laws, rules, policies, procedures and regulations.

Knowledge Statements:

- Knowledge of applicable laws, statutes, policies and procedures regarding public health and health information.
- Knowledge of types of agreements such as data use agreements and memorandums of understanding that govern data access and sharing.
- Knowledge of policies and Standard Operating Procedures (SOPs) specific to IIS operations.
- Knowledge of records management.
- Knowledge of recommended schedules.
- Knowledge of information security and privacy laws/policies as well as appropriate procedures to manage confidential data.

Skills Statements:

- Skill in appropriately applying IIS policies and procedures to specific situations.
- Skill to use relevant information to determine whether events or processes comply with laws, regulations, standards or procedures.
- Skill to develop standard operating procedures.
- Skill in interpreting laws, rules, policies and procedures and applying interpretations to specific situations.

Abilities Statements:

- Ability to apply public health laws, regulations, and policies specific to the Immunization Program.
 - Ability to quickly learn processes, and practices.
 - Ability to recommend modifications or enhancements to systems and policies.
 - Ability to establish procedures for diagnosing and solving technical problems.
 - Ability to use relevant information and individual judgment to determine whether events or processes comply with laws, regulations or standards.
-

Communication

Practices active, effective communication between IT, public health and other relevant stakeholders.

Abilities Statements:

- Ability to build mutual trust, respect and cooperation among team members.
- Ability to communicate effectively to technical and non-technical audiences in both written and oral methods.
- Ability to contribute as a strong member of a self-directed work team.
- Ability to develop constructive and cooperative working relationships with others, and maintain them over time.
- Ability to effectively express ideas orally and in writing using appropriate language and organizing ideas in an objective manner.
- Ability to translate or explain what information means and how it can be used.
- Ability to effectively communicate the capabilities and limitations of information technologies.
- Ability to represent the Program as a staff person for project, advisory, or technical committees.
- Ability to work effectively with senior-level decision-makers and their immediate staff members.
- Ability to apply tact and diplomacy to gain cooperation of others.

Analysis, Visualization & Reporting

Translates data to information and knowledge that leads to action using consistent analytic and reporting tools and techniques.

Knowledge Statements:

- Knowledge of techniques sufficient to collect, analyze, interpret and summarize data in a narrative or graphical format.
- Knowledge of the methods for analyzing and proposing system development tasks.
- Knowledge of standards and precedents for data design and formatting.

Skills Statements:

- Skill in use of phone, email, fax, text messaging, instant messaging and other telecommunications methods.
- Skill in communicating in writing, orally, electronically and in person with linguistic and cultural proficiency.
- Skill in applying effective communication and group dynamic strategies in interactions with individuals and groups.
- Skill in communicating the role of public health within the health system and community to diverse audiences.
- Skill in effectively communicating the capabilities and limitations of information systems.
- Skill in communicating orally to explain decisions, services or programs.
- Skill in resolving problems through negotiation.

Abilities Statements:

- Ability to apply general rules to specific problems.
- Ability to exercise appropriate judgment in determining when an issue or problem needs referral to management or other staff.
- Ability to analyze, evaluate and solve procedural problems.
- Ability to interpret technical materials to evaluate alternative technical solutions to address agency needs.

- Ability to research and design the techniques, methods, and principles used in complex data analysis.
 - Ability to read and interpret technical materials to better assist end users.
-

Evaluation

Applies rigorous methods to evaluate the effectiveness of workflows and information technology.

Knowledge Statements:

- Knowledge of general data quality concepts.

Skills Statements:

- Skill to identify complex problems and review related information to develop and evaluate options and implement solutions.

Abilities Statements:

- Ability to use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
-

Principles & Strategy

Applies informatics principles, strategic thinking and leadership techniques to public health information needs.

Knowledge Statements:

- Knowledge of the development of IIS systems over time.
- Knowledge of the multiple purposes and audiences that leverage IIS data and functionality, and the methods by which they access IIS data.
- Knowledge of the basic concepts of vaccine management, such as inventory and accountability.
- Knowledge of healthcare systems and practices.

Abilities Statements:

- Ability to work independently with little or no supervision.
 - Ability to work well in a high-pressure environment.
 - Ability to apply high attention to detail to work products.
 - Ability to use independent judgment, decision making and problem resolution to perform technical, operational, or administrative functions.
 - Ability to learn the organizational structures, roles, and interrelationships of local public health agencies, private health care organizations, private practices, school health, and health plans.
 - Ability to correctly assess the political and institutional environment in which decisions are made and implemented.
-

Training

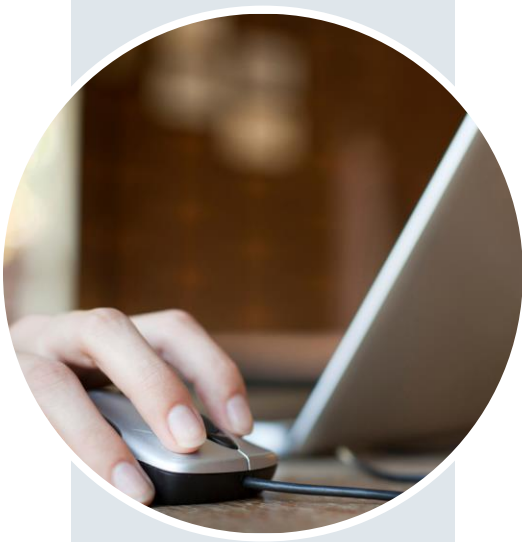
Effectively applies concepts of adult learning theory to educating a broad range of technical, programmatic and clinical audiences.

Knowledge Statements:

- Knowledge of techniques and methods of disseminating technical and programmatic information with external partners and stakeholders.

Abilities Statements:

- Ability to prepare, present and train on highly complex technical material and issues to non-specialists.



Immunization Information System (IIS) Data Quality Analyst

Role Description

March 2016

Note: This role description is meant to offer sample language and a comprehensive list of potential desired responsibilities with corresponding knowledge, skills and abilities (KSAs). Actual position descriptions should filter out information that is not applicable for a specific position or role. Depending on staffing levels, several roles may be combined within a single position, or several positions may fill the same role. The term “Immunization Information System” or “IIS” may be replaced with “Registry” within position titles in some jurisdictions.

Data Quality Analyst

IIS Data Quality Analyst is a role typically found in an experienced, advanced analyst series. It is a role heavily focused on research and process.

Scope

The person fulfilling this role is responsible for providing both corrective and preventive data quality interventions on incoming and existing data in the IIS. The person in this role develops, implements, maintains and updates data quality protocols for the IIS, and oversees data modifications to correct errors. The person in this role often drafts or oversees the development of Standard Operating Procedures (SOPs) for manual patient or vaccine deduplication and other data cleansing tasks, and also contributes subject matter expertise to the development of automated data cleansing procedures or algorithms. This role often serves as a liaison between the databases’ back-end tables where data quality issues are researched and pinpointed, the electronic and manual data sources where data quality issues often originate, and the user interface fields where changes can be made by less technical staff.

Budget Authority

This role may offer input into budget issues or contribute to grant writing or reporting efforts that involve current or future funding.

Position Titles

The following example job titles were gathered from existing positions at state and local health agencies:

- Data Quality Coordinator
- Data Assurance Specialist
- Research Analyst
- Continuous Quality Improvement Coordinator

Relationship

The person in this position typically reports to the IIS Manager. Internally, this position works very closely with the rest of the IIS team, as well as the vaccine management team, particularly related to inventory data elements and accountability of public vaccine. In addition, this position coordinates work with the Interface Manager to address data quality issues through interfaces and source data. This position may also work closely with the vendor/implementer/IT support that is supporting/maintaining the IIS to address systemic data quality issues or coordinate back-end data quality interventions.

Decision Making Authority

This position exercises considerable independent judgment in carrying out responsibilities within a highly collaborative environment. Decision making generally requires substantial negotiation and compromise with a variety of considerations, including the context imposed by applicable laws, statutes, rules, interests of stakeholders, available data, and resources. Decision making authority is commonly characterized as follows:

- Applies laws, rules, policies and best practices to develop data quality protocols
- Applies data quality protocols to correct errors in data
- Determines and recommends high-priority data issues in need of intervention
- Oversees and authorizes additional data quality interventions performed by other staff.

Major Duties and Responsibilities

This list contains examples of duties and responsibilities that may be associated with an IIS Data Quality Analyst role. This list offers many possible duties and responsibilities from which to select in order to create a position most appropriate to your program needs and your human resources requirements.

Data Quality Coordination:

- Plan and develop data quality and operational improvement projects for IIS, including coordination of quality control reports.
- Evaluate program operations, data; recommend actions to improve completeness and accuracy of data and to streamline operational processes.
- Plan operational improvement projects; identify project scope, required training and resources.
- Identify potential risks and difficulties in applying data quality interventions, and design strategies to mitigate or avoid them.
- In consultation with IIS cross-functional teams, identify areas of need.
- Establish procedures to verify the quality of data and the results of projects.
- Test, audit and validate system improvements to implement performance measures.
- Track and monitor operational results from measurements.
- Design and document data quality protocols.
- Quantifiably document the results and outputs of data quality interventions on incoming and existing data.

Systems Analysis:

- Collaborate with the IIS vendor, Immunization Program staff and managers, and outside partners to evaluate the existing system and plan enhancements.
- Develop long-range objectives and short-term operational goals to impact and improve data operations based on in-depth program knowledge.
- Recommend interventions to improve data quality.
- Propose system enhancements based on evaluation.

- Oversee bug, maintenance and feature requests, UAT and regression testing and product releases with staff and IIS vendor.

Technical Assistance/Training:

- Provide tier 3 support and technical assistance to Immunization Program partners and internal immunization program staff regarding high quality data submission and processing within the IIS.
- Clarify technical specifications with partners when needed.
- Interpret and assist in the implementation of grant objectives.
- Collaborate with the vendor, immunization program staff and outside partners to evaluate incoming data and plan enhancements to outreach and training strategies based on evaluation.
- In collaboration with training staff, design training and training materials for clinics, vendors and health systems regarding their data submission to the IIS and use of data from the IIS to assure proper implementation of program objectives.
- Train internal users on data quality and systems reporting issues.
- Collaborate in the development and presentation of local, statewide, and national trainings and presentations.
- Serve as a subject matter expert on IIS data quality and analytic issues both locally and nationally as needed and by request.

Project Lead and Coordination

- Provide team leadership and coordination to IIS data quality team to meet program and grant goals.
- Coordinate with other IIS workgroups and Immunization Program cross-program groups as needed.
- Develop and maintain Standard Operating Procedures (SOPs) and data exchange specifications.

Standard Setting, National Involvement

- Engage and provide input to the development of national standards and best practices regarding data exchange, with particular emphasis on HL7 and Web Services standards.
- Represent IIS at national meetings and conferences.

Functioning within an interdisciplinary team environment

- Consistently treats customers, stakeholders, partners, vendors and co-workers with dignity and respect.
- Creates and maintains a work environment that is welcoming and respectful of diversity.
- Sets clear guidelines and models expected professional behaviors.
- Other tasks as assigned.

Data Quality Analyst Competencies

This list contains the key competency areas with corresponding examples of knowledge, skills, and abilities that may be associated with the IIS Data Quality Analyst role. It is not all inclusive and may vary from position to position.

Standards and Interoperability

Applies informatics standards to ensure interoperability between disparate information systems.

Knowledge Statements:

- Knowledge of immunization terminology and practices, and the data elements that support them.
- Knowledge of relevant IIS standards, including HL7 2.x and SOAP/Web Services.
- Knowledge of IIS best practice documentation developed by the Modeling of Immunization Registry Operations Workgroup (MIROW).
- Knowledge of national initiatives such as Meaningful Use, and their impact on IIS and health information exchange.
- Knowledge of standardized IIS business rules and best practices.
- Knowledge of public health reporting standards.

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
 - Ability to quickly learn new terminology.
-

Project Management

Practices project management and program management techniques to engage stakeholders and team members in achieving goals and expectations.

Knowledge Statements:

- Knowledge of principles, methods and standards of project management.
- Knowledge of diverse IIS stakeholders and funding mechanisms.

Skills Statements:

- Skill to develop specific goals and plans to prioritize, organize, and accomplish work.
- Skill to document status and outputs of projects and processes.
- Skill to engage in testing of information solutions using appropriate methodologies and techniques.
- Skill in coordinating diverse activities to ensure completion of projects, tasks and assignments.
- Skill to apply fact-finding and work measurement techniques to organization systems.
- Skill to synthesize diverse facts, opinion and materials into usable work plans.

- Skill to apply quality management and improvement tools and processes to operational problems.

Abilities Statements:

- Ability to balance multiple, competing program demands.
 - Ability to establish long-range objectives and specify the strategies and actions to achieve them.
 - Ability to synthesize voluminous and diverse facts, opinions, and materials into usable work plans.
-



Information Systems

Applies fundamental knowledge of hardware, software (including business rules and algorithms), and network infrastructure essential to ensuring that public health requirements are met.

Knowledge Statements:

- Knowledge of health information systems.
- Knowledge of large databases and database functions/utilities.
- Knowledge of electronic data transfer methods.
- Knowledge of automated software applications such as IIS.
- Knowledge of relevant software and computer query and reporting tools, such as SQL, Crystal Reports, Business Objects or Excel to run reports.
- Knowledge of testing and troubleshooting techniques.
- Knowledge of information system analysis, design and data management concepts.
- Knowledge of health related vendor products such as EHRs.

Skills Statements:

- Skill in use of common software products such as Word, PowerPoint, Excel.
- Skill to adopt complex, modern information technology and communication tools.
- Skill in drafting end user and technical documentation.

Abilities Statements:

- Ability to solve complex issues requiring coordination, technical ability, and knowledge of computer and information systems to evaluate alternatives.
-



Policy

Ensures that information projects adhere to relevant laws, rules, policies, procedures, and regulations.

Knowledge Statements:

- Knowledge of applicable laws, statutes, policies and procedures regarding public health and health information.
- Knowledge of types of agreements such as data use agreements and memorandums of understanding that govern data access and sharing.

- Knowledge of policies and Standard Operating Procedures (SOPs) specific to IIS operations.
- Knowledge of records management.
- Knowledge of recommended schedules.

Skills Statements:

- Skill in appropriately applying IIS policies and procedures to specific situations
- Skill to use relevant information to determine whether events or processes comply with laws, regulations, standards or procedures.
- Skill to develop standard operating procedures
- Skill in interpreting laws, rules, policies and procedures and applying interpretations to specific situations.

Abilities Statements:

- Ability to apply public health laws, regulations, and policies specific to the Immunization Program.
- Ability to quickly learn processes, and practices.
- Ability to recommend modifications or enhancements to systems and policies.
- Ability to establish procedures for diagnosing and solving technical problems.
- Ability to use relevant information and individual judgment to determine whether events or processes comply with laws, regulations, or standards.

**Communication**

Practices active, effective communication between IT, public health, and other relevant stakeholders.

Knowledge Statements:

- Knowledge of methods and procedures of technical report writing.
- Knowledge of methods for presenting statistical, demographic, programmatic and scientific information to professional and lay audiences.

Skills Statements:

- Skill in use of phone, email, FAX, text messaging, instant messaging, and other telecommunications methods.
- Skill in communicating in writing, orally, electronically and in person with linguistic and cultural proficiency.
- Skill in applying effective communication and group dynamic strategies in interactions with individuals and groups.
- Skill in communicating the role of public health within the health system and community to diverse audiences.
- Skill in effectively communicating the capabilities and limitations of information systems.

- Skill in collaborating with a wide range of internal and external stakeholders including policy makers, health care and social services, end users, agency leaders, and community.

Abilities Statements:

- Ability to build mutual trust, respect and cooperation among team members.
- Ability to communicate effectively to technical and non-technical audiences in both written and oral methods.
- Ability to contribute as a strong member of a self-directed work team.
- Ability to develop constructive and cooperative working relationships with others, and maintain them over time.
- Ability to effectively express ideas orally and in writing using appropriate language and organizing ideas in an objective manner.
- Ability to translate or explain what information means and how it can be used.
- Ability to effectively communicate the capabilities and limitations of information technologies.
- Ability to represent the Program as a staff person for project, advisory, or technical committees.
- Ability to work effectively with senior-level decision-makers and their immediate staff members.

**Analysis, Visualization & Reporting**

Translates data to information and knowledge that leads to action using consistent analytic and reporting tools and techniques.

Knowledge Statements:

- Knowledge of techniques sufficient to collect, analyze, interpret and summarize data in a narrative or graphical format.
- Knowledge of the methods for analyzing and proposing system development tasks.
- Knowledge of business process analysis.
- Knowledge of standards and precedents for data design and formatting.
- Knowledge of public health sciences, including behavioral, social sciences, biostatistics, and epidemiology.

Skills Statements:

- Skill to analyze business needs and product requirements to create or design a system enhancement.
- Skill to determine how a system should work and how changes in conditions, operations and the environment will affect the outcomes.
- Skill to analyze business needs and product requirements to create or design a system enhancement.
- Skill in writing clear and concise narratives and statistical summaries.
- Skill in use of database analysis software and applications.

- Skill to conduct statistical analyses of program data and interpret the results of the analyses.

Abilities Statements:

- Ability to apply general rules to specific problems.
- Ability to exercise appropriate judgment in determining when an issue or problem needs referral to management or other staff.
- Ability to combine pieces of information to form general rules or conclusions.
- Ability to analyze, evaluate and solve procedural problems
- Ability to interpret technical materials to evaluate alternative technical solutions to address agency needs.
- Ability to research and design the techniques, methods, and principles used in complex data analysis.
- Ability to understand the implications of new information for both current and future problem-solving and decision-making.

**Evaluation**

Applies rigorous methods to evaluate the effectiveness of workflows and information technology.

Knowledge Statements:

- Knowledge of general data quality concepts.
- Knowledge of detailed quality assurance and improvement methodology.

Skills Statements:

- Skill to identify complex problems and review related information to develop and evaluate options and implement solutions.
- Skill to identify measures or indicators of system performance and the actions needed to improve or correct performance, relative to the goals of the system.

Abilities Statements:

- Ability to evaluate information against a set of standards of information integrity and comparability.
- Ability to use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- Ability to use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.

**Principles & Strategy**

Applies informatics principles, strategic thinking, and leadership techniques to public health information needs.

Knowledge Statements:

- Knowledge of the development of IIS systems over time.

- Knowledge of the multiple purposes and audiences that leverage IIS data and functionality, and the methods by which they access IIS data.
- Knowledge of the basic concepts of vaccine management, such as inventory and accountability.
- Knowledge of healthcare systems and practices.

Skills Statements:

- Skill to monitor or assess performance of other individuals or organization systems to make improvements or take corrective action.

Abilities Statements:

- Ability to work independently with little or no supervision.
- Ability to work well in a high-pressure environment.
- Ability to apply high attention to detail to work products.
- Ability to use independent judgment, decision making and problem resolution to perform technical, operational, or administrative functions.
- Ability to learn the organizational structures, roles, and interrelationships of local public health agencies, private health care organizations, private practices, school health, and health plans.
- Ability to correctly assess the political and institutional environment in which decisions are made and implemented.



Training

Effectively applies concepts of adult learning theory to educating a broad range of technical, programmatic and clinical audiences.

Abilities Statements:

- Ability to prepare, present, and train on highly complex technical material and issues to non-specialists.



Immunization Information System (IIS) Data Entry/ Deduplication Specialist

Sample Role Description

March 2016

Note: This role description is meant to offer sample language and a comprehensive list of potential desired responsibilities with corresponding knowledge, skills and abilities (KSAs). Actual position descriptions should filter out information that is not applicable for a specific position or role. Depending on staffing levels, several roles may be combined within a single position, or several positions may fill the same role. The term “Immunization Information System” or “IIS” may be replaced with “Registry” within position titles in some jurisdictions.

Summary

The Data Entry/Deduplication Specialist role is typically found in an entry level office specialist or administrative specialist series. Although the classification for this role is often entry level, the content knowledge needed for this position is significant.

Scope

The person fulfilling this role is responsible for conducting data cleansing activities on both incoming and existing data in the IIS. This role is also responsible for manually resolving possible duplicate patient data submitted for the same patient from a single or multiple sources (typically called deduplication). This role may also enter the small amount of new or corrected data that is submitted through mail, fax, or other hard copy, non-electronic methods.

Budget Authority

None

Position Titles

The following example job titles were gathered from existing positions at state and local health agencies:

- Data Entry Technician
- Deduplication Specialist
- Merging Specialist
- Data Quality Assistant

Relationship

The person in this role typically reports to the IIS Manager. Internally, this role works very closely with the Help Desk team and the Data Quality Coordinator. Externally, the person in this role may have some contact with end-users, including but not limited to public and private providers, school personnel, health plans, and other public health programs.

Decision Making Authority

- The person in this role exercises some independent judgment in carrying out responsibilities within a highly collaborative environment. Decision making generally requires merging, keeping separate, or separating potentially mismatched data. Decision making authority is commonly characterized as follows:
- Applies policies and procedures to determine if data should be merged or kept separate.
- Applies policies and procedures consistently to clean and/or correct data errors.

Major Duties and Responsibilities

This list contains examples of duties and responsibilities that may be associated with an IIS Data Quality Analyst role. This list offers many possible duties and responsibilities from which to select in order to create a position most appropriate to your program needs and your human resources requirements.

Data Quality Resolution

- Provide support for many data quality activities within IIS, with emphasis on improvements that will benefit the authorized users of the data within established laws, policies and procedures.
- Resolve discrepancies by contacting authorized users for information, comparing to IIS data files, and accessing information in the Vital Records birth files.
- Identify data errors as possible.
- Coordinate the resolution of data issues with lead data entry staff and/or technical staff.
- Coordinate with Data Quality Coordinator to determine new approaches and resolutions for data quality issues.
- Resolve duplicate records in the system.
- Correct mismerges and incorrectly flagged deceased records.

Data Entry

- Enter demographic and immunization data submitted to IIS by hard copy from private and public clinics.
- Provide direct contact with clinics as needed to improve data quality and timeliness.
- Ensure data are entered in a timely and accurate manner from all hard copy forms.

Documentation

- Provide a coordinating role in the development of IIS documentation for data entry procedures and data quality interventions.

Application of Policy

- Interpret policies and procedures, and applies this knowledge to handle data quality issues and errors that are both routine and non-routine.
- Maintain security and confidentiality of data at all times.

Functioning within an interdisciplinary team environment

- Consistently treat customers, stakeholders, partners, vendors and co-workers with dignity and respect.
- Create and maintain a work environment that is welcoming and respectful of diversity.
- Set clear guidelines and models expected professional behaviors.
- Other tasks as assigned.

Key Competencies

This list contains the key competency areas with corresponding examples of knowledge, skills, and abilities that may be associated with the IIS Data Entry/Deduplication Specialist role. It is not all inclusive and may vary from position to position.

Standards and Interoperability

Applies informatics standards to ensure interoperability between disparate information systems.

Knowledge Statements:

- Knowledge of immunization terminology and practices, and the data elements that support them.
- Knowledge of relevant IIS standards, including HL7 2.x and SOAP/Web Services.
- Knowledge of IIS best practice documentation developed by the Modeling of Immunization Registry Operations Workgroup (MIROW).
- Knowledge of national initiatives such as Meaningful Use, and their impact on IIS and health information exchange.
- Knowledge of standardized IIS business rules and best practices.

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.
 - Ability to quickly learn new terminology.
-

Project Management

Practices project management and program management techniques to engage stakeholders and team members in achieving goals and expectations.

Knowledge Statements:

- Knowledge of diverse IIS stakeholders and funding mechanisms.
- Knowledge of the outputs of computer query and reporting tools, such as SQL, Crystal Reports, Business Objects or Excel to support technical staff in running reports.

Skills Statements:

- Skill to develop specific goals and plans to prioritize, organize, and accomplish work.
- Skill to document status and outputs of projects and processes.
- Skill to engage in testing of information solutions using appropriate methodologies and techniques.
- Skill in coordinating diverse activities to ensure completion of projects, tasks and assignments.

Abilities Statements:

- Ability to balance multiple, competing program demands.
-

Information Systems

Applies fundamental knowledge of hardware, software (including business rules and algorithms), and network infrastructure essential to ensuring that public health requirements are met.

Knowledge Statements:

- Knowledge of health information systems.

- Knowledge of large databases and database functions/utilities.
- Knowledge of electronic data transfer methods.

Skills Statements:

- Skill in use of common software products such as Word, PowerPoint, Excel.
 - Skill to adopt complex, modern information technology and communication tools.
-



Policy

Ensures that information projects adhere to relevant laws, rules, policies, procedures, and regulations.

Knowledge Statements:

- Knowledge of applicable laws, statutes, policies and procedures regarding public health and health information.
- Knowledge of types of agreements such as data use agreements and memorandums of understanding that govern data access and sharing.
- Knowledge of policies and Standard Operating Procedures (SOPs) specific to IIS operations.
- Knowledge of records management.
- Knowledge of recommended schedules.

Skills Statements:

- Skill in appropriately applying IIS policies and procedures to specific situations
- Skill to use relevant information to determine whether events or processes comply with laws, regulations, standards or procedures.
- Skill in interpreting laws, rules, policies and procedures and applying interpretations to specific situations.

Abilities Statements:

- Ability to apply public health laws, regulations, and policies specific to the Immunization Program.
 - Ability to quickly learn processes, and practices.
 - Ability to use relevant information and individual judgment to determine whether events or processes comply with policies and procedures.
-



Communication

Practices active, effective communication between IT, public health and other relevant stakeholders.

Skills Statements:

- Skill in use of phone, email, fax, text messaging, instant messaging and other telecommunications methods.

Abilities Statements:

- Ability to build mutual trust, respect and cooperation among team members.
 - Ability to communicate effectively to technical and non-technical audiences in both written and oral methods.
 - Ability to contribute as a strong member of a self-directed work team.
 - Ability to develop constructive and cooperative working relationships with others, and maintain them over time.
 - Ability to effectively express ideas orally and in writing using appropriate language and organizing ideas in an objective manner.
-

Analysis, Visualization & Reporting

Translates data to information and knowledge that leads to action using consistent analytic and reporting tools and techniques.

Abilities Statements:

- Ability to apply general rules to specific problems.
 - Ability to exercise appropriate judgment in determining when an issue or problem needs referral to management or other staff.
-

Evaluation

Applies rigorous methods to evaluate the effectiveness of workflows and information technology.

Knowledge Statements:

- Knowledge of general data quality concepts.
-

Principles & Strategy

Applies informatics principles, strategic thinking, and leadership techniques to public health information needs.

Knowledge Statements:

- Knowledge of the development of IIS systems over time.
- Knowledge of the multiple purposes and audiences that leverage IIS data and functionality, and the methods by which they access IIS data.
- Knowledge of the basic concepts of vaccine management, such as inventory and accountability.

Skills Statements:

- Skill in accurately recording and entering data.

Abilities Statements:

- Ability to work independently with little or no supervision.
- Ability to work well in a high-pressure environment.
- Ability to apply high attention to detail to work products.
- Ability to use independent judgment, decision making and problem resolution to perform technical, operational, or administrative functions.



Immunization Information System (IIS) Testing Analyst

Sample Role Description

March 2016

Note: This role description is meant to offer sample language and a comprehensive list of potential desired responsibilities with corresponding knowledge, skills and abilities (KSAs). Actual position descriptions should filter out information that is not applicable for a specific position or role. Depending on staffing levels, several roles may be combined within a single position, or several positions may fill the same role. The term “Immunization Information System” or “IIS” may be replaced with “Registry” within position titles in some jurisdictions.

Summary

IIS Testing Analyst is a role typically found in a mid-level analyst series. It often requires specialized knowledge, however, and a background in information technology is very helpful.

Scope

The person fulfilling this role is responsible for drafting test cases and test plans, conducting and documenting functional user acceptance testing and regression testing prior to and/or following a release, tracking bugs and their resolution, and running routine test scripts to ensure the performance and up-time of the IIS.

Budget Authority

None

Position Titles

The following example job titles were gathered from existing positions at state and local health agencies:

- Tester
- User Acceptance Tester
- System Performance Monitor
- Analyst

Relationship

The person in this position typically reports to the IIS Manager. Internally, this position works very closely with the rest of the IIS team, and with the vendor/implementer/IT support that is supporting/maintaining the IIS.

Decision Making Authority

The person in this role exercises considerable independent judgment in carrying out responsibilities within a highly collaborative environment. Decision making generally requires substantial negotiation and compromise with a variety of considerations, including the context imposed by applicable laws, statutes, rules, interests of stakeholders, available data, and resources. Decision making authority is commonly characterized as follows:

- Applies laws, rules, policies and best practices to assist with design of functionality.
- Applies business rules and aspects of design in developing testing protocols.
- Determines passage or failure of steps in test plan.
- Determines disposition of application errors and/or bugs.

Major Duties and Responsibilities

This list contains examples of duties and responsibilities that may be associated with a Testing Analyst role. This list offers many possible duties and responsibilities from which to select in

order to create a position most appropriate to your program needs and your human resource requirements.

Conducting Testing

- Clarify technical specifications with partners.
- Executes detailed test plans to test the appropriate development and construction of the IIS.
- Conducts both unit testing and regression testing.
- Develops and drafts detailed test plans designed to test the IIS.

Documenting and Reporting

- Documents all planned test scripts and test cases.
- Documents that tests were conducted.
- Documents outcomes, both positive and negative, of test scripts and results.

Communication and Training

- Communicates results to IIS team and to IIS vendor as appropriate.
- Communicates test plans to IIS team and to IIS vendor as appropriate.
- Attends training to develop content and subject matter expertise in the IIS.
- Support internal users on reporting system issues.

Systems Analysis

- Collaborate with the IIS vendor, Immunization Program staff and managers, and outside partners to evaluate the existing system and provide input to plan enhancements.
- Recommend interventions to improve data quality.
- Propose system enhancements based on evaluation.
- Contribute to bug, maintenance and feature requests, UAT and regression testing and product releases with staff and IIS vendor.

Functioning within an interdisciplinary team environment

- Consistently treats customers, stakeholders, partners, vendors and co-workers with dignity and respect.
- Creates and maintains a work environment that is welcoming and respectful of diversity.
- Sets clear guidelines and models expected professional behaviors.
- Other tasks as assigned.

Key Competencies

This list contains the key competency areas with corresponding examples of knowledge, skills and abilities that may be associated with the IIS Testing Analyst role. It is not all inclusive and may vary from position to position.

Standards and Interoperability

Applies informatics standards to ensure interoperability between disparate information systems.

Knowledge Statements:

- Knowledge of immunization terminology and practices, and the data elements that support them.
- Knowledge of relevant IIS standards, including HL7 2.x and SOAP/Web Services.
- Knowledge of IIS best practice documentation developed by the Modeling of Immunization Registry Operations Workgroup (MIROW).
- Knowledge of national initiatives such as Meaningful Use, and their impact on IIS and health information exchange.
- Knowledge of standardized IIS business rules and best practices.

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.
 - Ability to quickly learn new terminology.
-

Project Management

Practices project management and program management techniques to engage stakeholders and team members in achieving goals and expectations.

Knowledge Statements:

- Knowledge of diverse IIS stakeholders and funding mechanisms.

Skills Statements:

- Skill to develop specific goals and plans to prioritize, organize, and accomplish work.
- Skill to document status and outputs of projects and processes.
- Skill to engage in testing of information solutions using appropriate methodologies and techniques.
- Skill in coordinating diverse activities to ensure completion of projects, tasks and assignments.
- Skill to oversee testing of information solutions using appropriate methodologies and techniques.

Abilities Statements:

- Ability to balance multiple, competing program demands.
-

Information Systems

Applies fundamental knowledge of hardware, software (including business rules and algorithms), and network infrastructure essential to ensuring that public health requirements are met.

Knowledge Statements:

- Knowledge of health information systems.
- Knowledge of large databases and database functions/utilities.

- Knowledge of electronic data transfer methods.
- Knowledge of automated software applications such as IIS.
- Knowledge of relevant software and computer query and reporting tools, such as SQL, Crystal Reports, Business Objects or Excel to run reports.
- Knowledge of testing and troubleshooting techniques.
- Knowledge of information system analysis, design and data management concepts.

Skills Statements:

- Skill in use of common software products such as Word, PowerPoint, Excel.
- Skill to adopt complex, modern information technology and communication tools.
- Skill in drafting end user and technical documentation.

Abilities Statements:

- Ability to solve complex issues requiring coordination, technical ability, and knowledge of computer and information systems to evaluate alternatives.
-



Policy

Ensures that information projects adhere to relevant laws, rules, policies, procedures, and regulations.

Knowledge Statements:

- Knowledge of applicable laws, statutes, policies and procedures regarding public health and health information.
- Knowledge of types of agreements such as data use agreements and memorandums of understanding that govern data access and sharing.
- Knowledge of policies and Standard Operating Procedures (SOPs) specific to IIS operations.
- Knowledge of records management.
- Knowledge of recommended schedules.

Skills Statements:

- Skill in appropriately applying IIS policies and procedures to specific situations
- Skill to use relevant information to determine whether events or processes comply with laws, regulations, standards or procedures.
- Skill to develop standard operating procedures.

Abilities Statements:

- Ability to apply public health laws, regulations and policies specific to the Immunization Program.
 - Ability to quickly learn processes, and practices.
 - Ability to recommend modifications or enhancements to systems and policies.
 - Ability to establish procedures for diagnosing and solving technical problems.
 - Ability to use relevant information and individual judgment to determine whether events or processes comply with policies and procedures.
-



Communication

Practices active, effective communication between IT, public health and other relevant stakeholders.

Skills Statements:

- Skill in use of phone, email, FAX, text messaging, instant messaging, and other telecommunications methods.
- Skill in communicating in writing, orally, electronically and in person with linguistic and cultural proficiency.

Abilities Statements:

- Ability to build mutual trust, respect and cooperation among team members.
 - Ability to communicate effectively to technical and non-technical audiences in both written and oral methods.
 - Ability to contribute as a strong member of a self-directed work team.
 - Ability to develop constructive and cooperative working relationships with others, and maintain them over time.
 - Ability to effectively express ideas orally and in writing using appropriate language and organizing ideas in an objective manner.
-

**Analysis, Visualization & Reporting**

Translates data to information and knowledge that leads to action using consistent analytic and reporting tools and techniques.

Skills Statements:

- Skill to analyze business needs and product requirements to create or design a system enhancement.
- Skill to determine how a system should work and how changes in conditions, operations and the environment will affect the outcomes.

Abilities Statements:

- Ability to apply general rules to specific problems.
 - Ability to exercise appropriate judgment in determining when an issue or problem needs referral to management or other staff.
 - Ability to combine pieces of information to form general rules or conclusions.
-

**Evaluation**

Applies rigorous methods to evaluate the effectiveness of workflows and information technology.

Knowledge Statements:

- Knowledge of general data quality concepts.

Skills Statements:

- Skill to identify complex problems and review related information to develop and evaluate options and implement solutions.

Abilities Statements:

- Ability to evaluate information against a set of standards of information integrity and comparability.
-

**Principles & Strategy**

Applies informatics principles, strategic thinking, and leadership techniques to public health information needs.

Knowledge Statements:

- Knowledge of the development of IIS systems over time.
- Knowledge of the multiple purposes and audiences that leverage IIS data and functionality, and the methods by which they access IIS data.
- Knowledge of the basic concepts of vaccine management, such as inventory and accountability.

Abilities Statements:

- Ability to work independently with little or no supervision.

- Ability to work well in a high-pressure environment.
- Ability to apply high attention to detail to work products.
- Ability to use independent judgment, decision making and problem resolution to perform technical, operational, or administrative functions.



Immunization Information System (IIS) Interface Analyst

Sample Role Description

March 2016

Note: This role description is meant to offer sample language and a comprehensive list of potential desired responsibilities with corresponding knowledge, skills and abilities (KSAs). Actual position descriptions should filter out information that is not applicable for a specific position or role. Depending on staffing levels, several roles may be combined within a single position, or several positions may fill the same role. The term “Immunization Information System” or “IIS” may be replaced with “Registry” within position titles in some jurisdictions.

Summary

Interface Analyst is a role typically found in an experienced, advanced analyst series. It may also reside in an Information Technology series. It often serves as a bridge between the technical and the programmatic teams within an IIS, and coordinates closely with the IIS vendor/implementer as well as external technology vendors.

Scope

The person fulfilling this role is responsible for recruiting and onboarding provider organizations and vendors in developing electronic uni-directional and bi-directional interfaces between Electronic Health Records (EHRs) and IIS, for coordinating Meaningful Use activities and documentation, for collaborating with Health Information Exchanges (HIEs), where operating, and for coordinating efforts between clinical and technical teams among provider organizations and vendor organizations. The person in this role may also have significant responsibilities for managing IIS-IIS inter-jurisdictional data exchange.

Budget Authority

If grant funds are awarded (e.g., Prevention and Public Health Fund (PPHF) Interoperability Grants), the person in this role may be responsible for tracking spending of grant awards. This role may offer input into budget issues or contribute to grant writing or reporting efforts that involve current or future funding.

Position Titles

The following example job titles were gathered from existing positions at state and local health agencies:

- Onboarding Analyst
- Onboarding Technician
- Interface Manager
- Data Analyst
- HL7 Specialist
- Informaticist
- Informatician
- Interoperability Analyst

Relationship

The person in this role typically reports to the IIS Manager. Internally, this role works very closely with the rest of the IIS team, as well as the vaccine management team, particularly related to inventory decrementing and accountability of public vaccine. Externally, this position works with technical staff in provider settings, Health Information Exchange (HIE) settings, and vendor/Electronic Health Record (EHR) settings, in the development of interfaces to the IIS, as well as with clinical staff who have a role in validating and verifying the accuracy of uni-

directional and bi-directional interfaces. This role may also interface closely with health information exchanges (HIEs).

Decision Making Authority

This position exercises considerable independent judgment in carrying out responsibilities within a highly collaborative environment. Decision-making generally requires substantial negotiation and compromise with a variety of considerations, including the context imposed by applicable laws, statutes, rules, interests of stakeholders, available data, and resources. Decision making authority is commonly characterized as follows:

- Authenticates and validates the identity of entities wishing to create an interface.
- Verifies accuracy of interface through testing and validation, testing both incoming and outgoing data quality.
- Determines appropriate point at which interface is deemed accurate and approved for production environment.
- Tests the interface post-production to authorize continued data exchange.

Major Duties and Responsibilities

This list contains examples of duties and responsibilities that may be associated with an Interface Analyst role. This list offers many possible duties and responsibilities from which to select in order to create a position most appropriate to your program needs and your human resource requirements.

Development of Data Exchange Interfaces

- Provide technical and program support to IIS partners that are onboarding to unidirectional and bi-directional web-based immunization information exchange.
- Collaborate with IIS vendors regarding security certificate management, web-services functionality, and documentation.
- Serve as point of contact for any site transitioning to HL7 data exchange, for both partners/data sources/EHR vendors as well as for the jurisdiction's technical IIS vendor.
- Coordinate with other testing staff to facilitate testing of messaging format, content and transport functionality.
- Following completion of testing process, coordinate transition to production data submission.
- Collaborate with jurisdictional Public Health Informatics Initiatives regarding Meaningful Use and Health Information Exchange (HIE) activities.
- Ensure alignment with all relevant national IIS and health information exchange standards for messaging format, content, and transport functions.

Interoperability Project Lead and Coordination

- Provide team leadership and coordination to IIS Onboarding/Interoperability team to meet program and grant goals.
- Coordinate with other IIS workgroups and Immunization Program cross-program groups as needed.
- Develop and maintain Standard Operating Procedures (SOPs) and data exchange specifications.
- Standardize procedures for HL7 data import and approval, review response files and advise partners on error handling.

Grant Coordination

- Manage the Immunization Section's interoperability grant reports and provide oversight to the high-level budget, coordinating with the IIS Manager as appropriate.
- Interprets policy and regulatory information to plan and coordinate activities.
- Oversee the preparation of revenue and expenditure projections, monitor grant financial performance against plans and projecting needs.
- Coordinate the revision of budgets to reflect changes in grant funding.
- Carry out budget priorities.
- Oversee the preparation of fiscal impact statements for grant management, as needed.
- Identify potential risks and difficulties, and designs strategies to mitigate or avoid them.

Standard Setting, National Involvement

- Engage and provide input to the development of national standards and best practices regarding data exchange, with particular emphasis on HL7 and Web Services standards.
- Represent IIS at national meetings and conferences.

Functioning within an interdisciplinary team environment

- Consistently treat customers, stakeholders, partners, vendors and co-workers with dignity and respect.
- Create and maintain a work environment that is welcoming and respectful of diversity.
- Set clear guidelines and model expected professional behaviors.
- Other tasks as assigned.

Key Competencies

This list contains the key competency areas with corresponding examples of knowledge, skills, and abilities that may be associated with the IIS Interface Analyst role. It is not all inclusive and may vary from position to position.

Standards and Interoperability

Applies informatics standards to ensure interoperability between disparate information systems.

Knowledge Statements:

- Knowledge of immunization terminology and practices, and the data elements that support them.
- Knowledge of relevant IIS standards, including HL7 2.x and SOAP/Web Services.
- Knowledge of IIS best practice documentation developed by the Modeling of Immunization Registry Operations Workgroup (MIROW).
- Knowledge of national initiatives such as Meaningful Use, and their impact on IIS and health information exchange.
- Knowledge of standardized IIS business rules and best practices.
- Knowledge of public health reporting standards.
- IIS Interface Analyst role. It is not all inclusive and may vary from position to position.

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.
 - Ability to quickly learn new terminology.
-

Project Management

Practices project management and program management techniques to engage stakeholders and team members in achieving goals and expectations.

Knowledge Statements:

- Knowledge of diverse IIS stakeholders and funding mechanisms.
- Knowledge of principles, methods and standards of project management.
- Knowledge of the principles of work organization and simplification.

Skills Statements:

- Skill to develop specific goals and plans to prioritize, organize, and accomplish work.
- Skill to document status and outputs of projects and processes.
- Skill to engage in testing of information solutions using appropriate methodologies and techniques.
- Skill in coordinating diverse activities to ensure completion of projects, tasks and assignments.
- Skill to apply fact-finding and work measurement techniques to organization systems.
- Skill to synthesize diverse facts, opinion and materials into usable work plans.

Abilities Statements:

- Ability to balance multiple, competing program demands.
 - Ability to establish long-range objectives and specify the strategies and actions to achieve them.
 - Ability to synthesize voluminous and diverse facts, opinions, and materials into usable work plans.
-

Information Systems

Applies fundamental knowledge of hardware, software (including business rules and algorithms), and network infrastructure essential to ensuring that public health requirements are met.

Knowledge Statements:

- Knowledge of health information systems.
- Knowledge of large databases and database functions/utilities.
- Knowledge of electronic data transfer methods.
- Knowledge of automated software applications such as IIS.
- Knowledge of relevant software and computer query and reporting tools, such as SQL, Crystal Reports, Business Objects or Excel to run reports.
- Knowledge of testing and troubleshooting techniques.
- Knowledge of health related vendor products such as EHRs.
- Knowledge of analyzing and proposing system development or enhancement tasks.
- Knowledge of information system analysis, design and data management concepts.

Skills Statements:

- Skill in use of common software products such as Word, PowerPoint and Excel.
- Skill to adopt complex, modern information technology and communication tools.
- Skill in drafting end user and technical documentation.

Abilities Statements:

- Ability to solve complex issues requiring coordination, technical ability, and knowledge of computer and information systems to evaluate alternatives.

Policy

Ensures that information projects adhere to relevant laws, rules, policies, procedures, and regulations.

Knowledge Statements:

- Knowledge of applicable laws, statutes, policies and procedures regarding public health and health information.
- Knowledge of types of agreements such as data use agreements and memorandums of understanding that govern data access and sharing.
- Knowledge of policies and Standard Operating Procedures (SOPs) specific to IIS operations.
- Knowledge of records management.
- Knowledge of recommended schedules.

Skills Statements:

- Skill in appropriately applying IIS policies and procedures to specific situations
- Skill to use relevant information to determine whether events or processes comply with laws, regulations, standards or procedures.
- Skill to develop standard operating procedures.
- Skill in interpreting laws, rules, policies and procedures and applying interpretations to specific situations.

Abilities Statements:

- Ability to apply public health laws, regulations, and policies specific to the Immunization Program.
- Ability to quickly learn processes, and practices.
- Ability to recommend modifications or enhancements to systems and policies.
- Ability to use relevant information and individual judgment to determine whether events or processes comply with laws, regulations, or standards.
- Ability to establish procedures for diagnosing and solving technical problems.

Communication

Practices active, effective communication between IT, public health and other relevant stakeholders.

Skills Statements:

- Skill in use of phone, email, FAX, text messaging, instant messaging, and other telecommunications methods.
- Skill in communicating in writing, orally, electronically and in person with linguistic and cultural proficiency.
- Skill in applying effective communication and group dynamic strategies in interactions with individuals and groups.
- Skill in communicating the role of public health within the health system and community to diverse audiences.
- Skill in effectively communicating the capabilities and limitations of information systems.
- Skill in managing a high-volume of incoming calls and requests from diverse stakeholders and populations.
- Skill in collaborating with a wide range of internal and external stakeholders including policy makers, health care and social services, end users, agency leaders and community.

Abilities Statements:

- Ability to build mutual trust, respect and cooperation among team members.
- Ability to communicate effectively to technical and non-technical audiences in both written and oral methods.
- Ability to contribute as a strong member of a self-directed work team.
- Ability to develop constructive and cooperative working relationships with others, and maintain them over time.
- Ability to effectively express ideas orally and in writing using appropriate language and organizing ideas in an objective manner.
- Ability to translate or explain what information means and how it can be used.
- Ability to effectively communicate the capabilities and limitations of information technologies.
- Ability to represent the Program as a staff person for project, advisory, or technical committees.
- Ability to work effectively with senior-level decision-makers and their immediate staff members.
- Ability to apply tact and diplomacy to gain cooperation of others.

Analysis, Visualization & Reporting

Translates data to information and knowledge that leads to action using consistent analytic and reporting tools and techniques.

Knowledge Statements:

- Knowledge of techniques sufficient to collect, analyze, interpret and summarize data in a narrative or graphical format.
- Knowledge of the methods for analyzing and proposing system development tasks.
- Knowledge of business process analysis.

Skills Statements:

- Skill to analyze business needs and product requirements to create or design a system enhancement.
- Skill to analyze business needs and product requirements to create or design a system enhancement.
- Skill in writing clear and concise narratives and statistical summaries.
- Skill in use of database analysis software and applications.
- Skill to determine how a system should work and how changes in conditions, operations and the environment will affect the outcomes.
- Skill to conduct statistical analyses of program data and interpret the results of the analyses.

Abilities Statements:

- Ability to apply general rules to specific problems.
 - Ability to exercise appropriate judgment in determining when an issue or problem needs referral to management or other staff.
 - Ability to read and interpret technical materials to better assist end users.
 - Ability to analyze, evaluate and solve procedural problems.
 - Ability to interpret technical materials to evaluate alternative technical solutions to address agency needs.
 - Ability to research and design the techniques, methods, and principles used in complex data analysis.
 - Ability to understand the implications of new information for both current and future problem-solving and decision-making.
 - Ability to combine pieces of information to form general rules or conclusions.
-

**Evaluation**

Applies rigorous methods to evaluate the effectiveness of workflows and information technology.

Knowledge Statements:

- Knowledge of general data quality concepts.
- Knowledge of detailed quality assurance and improvement methodology.

Skills Statements:

- Skill to identify complex problems and review related information to develop and evaluate options and implement solutions.
- Skill to identify measures or indicators of system performance and the actions needed to improve or correct performance, relative to the goals of the system.

Abilities Statements:

- Ability to use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
 - Ability to evaluate information against a set of standards of information integrity and comparability.
 - Ability to use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
-

**Principles & Strategy**

Applies informatics principles, strategic thinking, and leadership techniques to public health information needs.

Knowledge Statements:

- Knowledge of the development of IIS systems over time.

- Knowledge of the multiple purposes and audiences that leverage IIS data and functionality, and the methods by which they access IIS data.
- Knowledge of the basic concepts of vaccine management, such as inventory and accountability.
- Knowledge of healthcare systems and practices.

Abilities Statements:

- Ability to work independently with little or no supervision.
- Ability to work well in a high-pressure environment.
- Ability to apply high attention to detail to work products.
- Ability to use independent judgment, decision making and problem resolution to perform technical, operational, or administrative functions.
- Ability to learn the organizational structures, roles, and interrelationships of local public health agencies, private health care organizations, private practices, school health and health plans.
- Ability to correctly assess the political and institutional environment in which decisions are made and implemented.



Training

Effectively applies concepts of adult learning theory to educating a broad range of technical, programmatic and clinical audiences.

Abilities Statements:

- Ability to prepare, present and train on highly complex technical material and issues to non-specialists.



Immunization Information System (IIS) Help Desk Technician, Tier 1

Sample Role Description

March 2016

Note: This role description is meant to offer sample language and a comprehensive list of potential desired responsibilities with corresponding knowledge, skills and abilities (KSAs). Actual position descriptions should filter out information that is not applicable for a specific position or role. Depending on staffing levels, several roles may be combined within a single position, or several positions may fill the same role. The term “Immunization Information System” or “IIS” may be replaced with “Registry” within position titles in some jurisdictions.

Help Desk Technician, Tier 1

Help Desk Technician, Tier 1 is a role typically found in a mid-level office specialist or administrative specialist series. Although the classification for this role is often administrative or support-staff oriented, the content knowledge needed for this position is significant.

Scope

The person fulfilling this role is responsible for providing information, technical assistance and support to internal users as well as end users, including public and private providers, schools, child care facility staff, health plan representatives, and other engaged stakeholders. This role is typically the first contact many external partners have with an IIS team.

Budget Authority

None

Position Titles

The following example job titles were gathered from existing positions at state and local health agencies:

- Help Desk Technician
- Technical Support Representative
- Customer Service Representative

Relationship

The person in this role typically reports to the IIS Manager. Internally, this role works very closely with the IIS team, and other immunization program staff as needed. Externally, this position works with all end-users of the IIS, including but not limited to public and private providers, school personnel, health plans, parents and other adults requesting records.

Decision Making Authority

This role exercises considerable independent judgment in carrying out responsibilities within a highly collaborative environment. Decision making generally requires substantial negotiation and compromise with a variety of considerations, including the context imposed by applicable laws, statutes, rules, interests of stakeholders, available data and resources. Decision making authority is commonly characterized as follows:

- Authenticates and validates the identity of data and information requesters.
- Applies law and policy to determine level of access to available data.
- Determines requestor’s needs and identifies appropriate resolution of request.

Major Duties and Responsibilities

This list contains examples of duties and responsibilities that may be associated with a Help desk Tier 1 role. This list offers many possible duties and responsibilities from which to select in order

to create a position most appropriate to your program needs and your human resources requirements.

Data Quality Resolution

- Provides support for many data quality activities within IIS, with emphasis on improvements that will benefit the authorized users of the data within established laws, policies and procedures.
- Resolves discrepancies by contacting authorized users for information, comparing to IIS data files, and accessing information in the Vital Records birth files.
- Compiles reports on frequent discrepancies and recommends solutions and implements recommendations approved by management.
- Coordinates the resolution of data issues with lead data entry staff and/or technical staff.
- Coordinates with Data Quality Coordinator to determine new approaches and resolutions for data quality issues.
- Resolves duplicate records in the system.

Provider/Organization Management

- Assists with contact management and maintains provider information necessary for identifying, contacting and linking providers to data.
- Provides design consultation and testing for provider enrollment and onboarding process.
- Assists with the production of provider training materials, and customer service user guides.
- Communicates with appropriate Immunization Program Staff regarding specific organizations and providers requests or issues.

Technical Assistance/Training

- Communicates on a regular basis by phone, fax, email or in writing with authorized users of IIS from both public and private sectors: providers, health plans, schools, day care facilities, parents.
- Provides faxed or emailed immunization histories by request.
- Provides primary support for 800-line phone calls and verifies identity of IIS authorized users.
- Provides and interprets information on recommended immunization schedule, recommended vaccines and supports users in ensuring data is entered into IIS effectively.
- Coordinates and provides special assistance and training regarding customer requests.
- Utilizes considerable self-direction as well as team leadership.
- Establishes and maintains procedures and other controls needed to maintain and improve customer service for IIS.
- Conducts outreach to providers to recruit and engage them in IIS participation and/or specific IIS functions, and provides training and support on multiple applications within the immunization program.

Application of Policy

- Interprets laws, rules, policies and procedures, and applies this knowledge to handle customer issues that are both routine and non-routine.
- Maintains security and confidentiality of data at all times

Functioning within an interdisciplinary team environment

- Consistently treats customers, stakeholders, partners, vendors and co-workers with dignity and respect.
- Creates and maintains a work environment that is welcoming and respectful of diversity.
- Sets clear guidelines and models expected professional behaviors.
- Other tasks as assigned.

Key Competencies

This list contains the key competency areas with corresponding examples of knowledge, skills, and abilities that may be associated with the IIS Help Desk Technician, Tier 1 role. It is not all inclusive and may vary from position to position.

Standards and Interoperability

Applies informatics standards to ensure interoperability between disparate information systems.

Knowledge Statements:

- Knowledge of immunization terminology and practices, and the data elements that support them.
- Knowledge of relevant IIS standards, including HL7 2.x and SOAP/Web Services.
- Knowledge of IIS best practice documentation developed by the Modeling of Immunization Registry Operations Workgroup (MIROW).
- Knowledge of national initiatives such as Meaningful Use, and their impact on IIS and health information exchange.
- Knowledge of standardized IIS business rules and best practices.
- Knowledge of public health reporting standards.
- Knowledge of Clinical Decision Support Specifications developed by CDC.

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.
 - Ability to quickly learn new terminology.
-

Project Management

Practices project management and program management techniques to engage stakeholders and team members in achieving goals and expectations.

Knowledge Statements:

- Knowledge of diverse IIS stakeholders and funding mechanisms.
- Knowledge of the outputs of computer query and reporting tools, such as SQL, Crystal Reports, Business Objects or Excel to support technical staff in running reports.

Skills Statements:

- Skill to develop specific goals and plans to prioritize, organize, and accomplish work.
- Skill to document status and outputs of projects and processes.
- Skill to engage in testing of information solutions using appropriate methodologies and techniques.
- Skill in coordinating diverse activities to ensure completion of projects, tasks and assignments.

Abilities Statements:

- Ability to balance multiple, competing program demands.

-



Information Systems

Applies fundamental knowledge of hardware, software (including business rules and algorithms), and network infrastructure essential to ensuring that public health requirements are met.

Knowledge Statements:

- Knowledge of health information systems.
- Knowledge of large databases and database functions/utilities.
- Knowledge of electronic data transfer methods.

Skills Statements:

- Skill in use of common software products such as Word, PowerPoint and Excel.
 - Skill to adopt complex, modern information technology and communication tools.
-



Policy

Ensures that information projects adhere to relevant laws, rules, policies, procedures, and regulations.

Knowledge Statements:

- Knowledge of applicable laws, statutes, policies and procedures regarding public health and health information.
- Knowledge of types of agreements such as data use agreements and memorandums of understanding that govern data access and sharing.
- Knowledge of policies and Standard Operating Procedures (SOPs) specific to IIS operations.
- Knowledge of records management.
- Knowledge of recommended schedules.

Skills Statements:

- Skill in appropriately applying IIS policies and procedures to specific situations.
- Skill to use relevant information to determine whether events or processes comply with laws, regulations, standards or procedures.
- Skill in use of contact management software and applications.

Abilities Statements:

- Ability to apply public health laws, regulations, and policies specific to the Immunization Program.
 - Ability to quickly learn processes, and practices.
 - Ability to use relevant information and individual judgment to determine whether events or processes comply with policies and procedures.
-



Communication

Practices active, effective communication between IT, public health and other relevant stakeholders.

Skills Statements:

- Skill in use of phone, email, fax, text messaging, instant messaging and other telecommunications methods.
- Skill in communicating in writing, orally, electronically and in person with linguistic and cultural proficiency.
- Skill in applying effective communication and group dynamic strategies in interactions with individuals and groups.
- Skill in communicating the role of public health within the health system and community to diverse audiences.
- Skill in effectively communicating the capabilities and limitations of information systems.
- Skill in communicating orally to explain decisions, services or programs.
- Skill in resolving problems through negotiation.
- Skill in managing a high volume of incoming calls and requests from diverse stakeholders and populations.

Abilities Statements:

- Ability to build mutual trust, respect and cooperation among team members.
- Ability to communicate effectively to technical and non-technical audiences in both written and oral methods.
- Ability to contribute as a strong member of a self-directed work team.
- Ability to develop constructive and cooperative working relationships with others, and maintain them over time.
- Ability to effectively express ideas orally and in writing using appropriate language and organizing ideas in an objective manner.
- Ability to translate or explain what information means and how it can be used.
- Ability to effectively communicate the capabilities and limitations of information technologies.



Analysis, Visualization & Reporting

Translates data to information and knowledge that leads to action using consistent analytic and reporting tools and techniques.

Knowledge Statements:

- Knowledge of techniques sufficient to collect, analyze, interpret and summarize data in a narrative or graphical format.

Skills Statements:

- Skill in composing written and oral responses to inquiries, narrative reports and instructional materials.

Abilities Statements:

- Ability to apply general rules to specific problems.
- Ability to exercise appropriate judgment in determining when an issue or problem needs referral to management or other staff.
- Ability to read and interpret technical materials to better assist end users.



Evaluation

Applies rigorous methods to evaluate the effectiveness of workflows and information technology.

Knowledge Statements:

- Knowledge of general data quality concepts.

Principles & Strategy

Applies informatics principles, strategic thinking, and leadership techniques to public health information needs.

Knowledge Statements:

- Knowledge of the development of IIS systems over time.
- Knowledge of the multiple purposes and audiences that leverage IIS data and functionality, and the methods by which they access IIS data.
- Knowledge of the basic concepts of vaccine management, such as inventory and accountability.
- Knowledge of healthcare systems and practices.

Abilities Statements:

- Ability to work independently with little or no supervision.
- Ability to work well in a high-pressure environment.
- Ability to apply high attention to detail to work products.
- Ability to use independent judgment, decision making and problem resolution to perform technical, operational, or administrative functions.
- Ability to learn the organizational structures, roles, and interrelationships of local public health agencies, private health care organizations, private practices, school health, and health plans.

Training

Effectively applies concepts of adult learning theory to educating a broad range of technical, programmatic and clinical audiences.

Knowledge Statements:

- Knowledge of techniques and methods of disseminating technical and programmatic information with external partners and stakeholders.

Abilities Statements:

- Ability to prepare, present and train on highly complex technical material and issues to non-specialists.



Immunization Information System (IIS) Help Desk Technician, Tier 2

Sample Role Description

March 2016

Note: This role description is meant to offer sample language and a comprehensive list of potential desired responsibilities with corresponding knowledge, skills and abilities (KSAs). Actual position descriptions should filter out information that is not applicable for a specific position or role. Depending on staffing levels, several roles may be combined within a single position, or several positions may fill the same role. The term “Immunization Information System” or “IIS” may be replaced with “Registry” within position titles in some jurisdictions.

Help Desk Technician, Tier 2

Help Desk Technician, Tier 2 is a role typically found in an experienced analyst series. This role typically encompasses all of the skills within the Help Desk Technician, Tier 1 role, but is also able to respond to more complex requests and questions that require a deeper level of analysis or investigation.

Scope

The person fulfilling this role is responsible for providing increasingly complex technical assistance and support to internal users as well as end users. The person in this role may also be responsible for maintaining codeset or base table configurations in the system, such as modifying forecaster algorithms, and introducing newly assigned codes, such as CPT and NDC.

Budget Authority

This role may offer input into budget issues or contribute to grant writing or reporting efforts that involve current or future funding.

Position Titles

The following example job titles were gathered from existing positions at state and local health agencies:

- Advanced Help Desk Technician
- Advanced Customer Support Specialist
- Data Analyst

Relationship

The person in this position typically reports to the IIS Manager. Internally, this position works very closely with the helpdesk team, as well as the rest of the IIS team, and other immunization program staff as needed. Externally, this position works with all end-users of the IIS, including but not limited to public and private providers, school personnel, health plans, parents and other adults requesting records. The person in this role may have lead status or oversight of the Help Desk Team.

Decision Making Authority

This position exercises considerable independent judgment in carrying out responsibilities within a highly collaborative environment. Decision making generally requires substantial negotiation and compromise with a variety of considerations, including the context imposed by applicable laws, statutes, rules, interests of stakeholders, available data and resources. Decision making authority is commonly characterized as follows:

- Authenticates and validates the identity of data and information requesters.
- Applies law and policy to determine level of access to available data.
- Determines requestor’s needs and identifies appropriate resolution of request.

- Gathers additional data and/or information with which to make a decision or determine a course of action.

Major Duties and Responsibilities

This list contains examples of duties and responsibilities that may be associated with a Helpdesk Tier 2 position. This list offers many possible duties and responsibilities from which to select in order to create a position most appropriate to your program needs and your human resources requirements.

Data Quality Resolution

- Provides support for many data quality activities within IIS, with emphasis on improvements that will benefit the authorized users of the data within established laws, policies and procedures.
- Resolves discrepancies by contacting authorized users for information, comparing to IIS data files, and accessing information in the Vital Records birth files.
- Compiles reports on frequent discrepancies and recommends solutions and implements recommendations approved by management.
- Coordinates the resolution of data issues with lead data entry staff and/or technical staff.
- Coordinates with Data Quality Coordinator to determine new approaches and resolutions for data quality issues.
- Resolves duplicate records in the system.
- Investigates data quality issues and discrepancies through data extracts and analysis.
- Presents solutions for resolution of data quality issues for incoming and existing data.
- Work with technical staff to identify issues that arise in IIS, including data quality issues.
- Troubleshoot reported issues within IIS, including investigating potential bugs and connectivity issues.

Provider/Organization Management

- Assists with contact management and maintains provider information necessary for identifying, contacting and linking providers to data.
- Provides design consultation and testing for provider enrollment and onboarding process.
- Assists with the production of provider training materials, and customer service user guides.
- Coordinates with appropriate Vaccines For Children health educator regarding specific organizations and providers.

Technical Assistance/Training/Communications

- Communicates on a regular basis by phone, fax, email or in writing with authorized users of IIS from both public and private sectors: providers, health plans, schools, day care facilities and parents.
- Provides faxed, emailed or postal-mailed immunization records securely and by request.
- Provides primary support for 800-line phone calls and verifies identity of IIS authorized users.
- Provides and interprets information on recommended immunization schedule, recommended vaccines and supports users in ensuring data is entered into IIS effectively.
- Coordinates and provides special assistance and training regarding customer requests.
- Utilizes considerable self-direction as well as team leadership.

- Establishes and maintains procedures and other controls needed to maintain and improve customer service for IIS.
- Conducts outreach to providers to recruit and engage them in IIS participation and/or specific IIS functions, and provides training and support on multiple applications within the immunization program.
- Lead or participate in project team meetings and discussions to arrive at consensus.
- Coach IIS team members on project methodology and processes.
- Lead meetings to provide information and determine project requirements.
- In collaboration with the IIS Director and training lead, coordinate IIS activities with other immunization programs and managers, and community partners and health departments throughout the state.
- Provide updates to IIS external stakeholders and other entities as needed.
- Create and maintain documentation on all projects and project resolution.
- Conduct centralized reminder recall for partial or full jurisdictional population.
- Provide support for organization-driven recall among authorized users.

Application of Policy

- Interprets laws, rules, policies and procedures, and applies this knowledge to handle customer issues that are both routine and non-routine.
- Maintains security and confidentiality of data at all times.

Functioning within an interdisciplinary team environment

- Consistently treats customers, stakeholders, partners, vendors and co-workers with dignity and respect.
- Creates and maintains a work environment that is welcoming and respectful of diversity.
- Sets clear guidelines and models expected professional behaviors.
- Other tasks as assigned.

Management of Code Sets, Algorithms, Enhancements

- Implements and coordinates the release of new CVX, CPT, NDC codes within the IIS.
- Implements and coordinates modifications to the forecasting algorithms for IIS functions.

Management of Enhancements

- Identify and support the design and implementation of new enhancements to the IIS.
- Work with vendor and internal staff to review functional specifications and provide testing and documentation of changes and improvements.
- Assist with the development and management of project plans and schedules.
- Identify project scope, required training, and resources.
- Participate in meetings with project team, senior managers, community partners and local health departments throughout the state and other stakeholders to define scope, requirements, and other ongoing aspects of the IIS.
- Identify the resources needed to assure project success and monitor timely, appropriate completion of tasks.
- Identify and manage project risks, including mitigation strategies.
- Identify methods to determine effectiveness and assure quality.
- Solve disputes and gain agreement with internal and external constituency and community partners to support policy initiatives.
- Create Maintenance Requests and Change Orders as necessary to address needed functionality.

Maintenance of Immunization Forecaster

- Lead team tasked with assuring that the IIS forecaster assesses immunization histories correctly and returns accurate forecasts of immunizations due.
- Maintain the forecasting tables in all three instances of IIS platform; Production, training and UAT.
- Produce required documentation to describe to end users how IIS calculates the forecast.
- Produce required internal documentation of the forecaster that describes how the set up tables are used and the process for making needed changes.

Key Competencies

This list contains the key competency areas with corresponding examples of knowledge, skills, and abilities that may be associated with the IIS Help Desk Technician, Tier 2 role. It is not all inclusive and may vary from position to position.

Standards and Interoperability

Applies informatics standards to ensure interoperability between disparate information systems.

Knowledge Statements:

- Knowledge of immunization terminology and practices, and the data elements that support them.
- Knowledge of relevant IIS standards, including HL7 2.x and SOAP/Web Services.
- Knowledge of IIS best practice documentation developed by the Modeling of Immunization Registry Operations Workgroup (MIROW).
- Knowledge of national initiatives such as Meaningful Use, and their impact on IIS and health information exchange.
- Knowledge of standardized IIS business rules and best practices.
- Knowledge of public health reporting standards.
- Knowledge of Clinical Decision Support Specifications developed by CDC.

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.
 - Ability to quickly learn new terminology.
-

Project Management

Practices project management and program management techniques to engage stakeholders and team members in achieving goals and expectations.

Knowledge Statements:

- Knowledge of diverse IIS stakeholders and funding mechanisms.
- Knowledge of the outputs of computer query and reporting tools, such as SQL, Crystal Reports, Business Objects or Excel to support technical staff in running reports.

Skills Statements:

- Skill to develop specific goals and plans to prioritize, organize, and accomplish work.
- Skill to document status and outputs of projects and processes.
- Skill to engage in testing of information solutions using appropriate methodologies and techniques.
- Skill in coordinating diverse activities to ensure completion of projects, tasks and assignments.

Abilities Statements:

- Ability to balance multiple, competing program demands.
 - Ability to establish long-range objectives and specify the strategies and actions to achieve them.
 - Ability to synthesize voluminous and diverse facts, opinions, and materials into usable work plans.
-

Information Systems

Applies fundamental knowledge of hardware, software (including business rules and algorithms), and network infrastructure essential to ensuring that public health requirements are met.

Knowledge Statements:

- Knowledge of health information systems.
- Knowledge of large databases and database functions/utilities.
- Knowledge of electronic data transfer methods.

Skills Statements:

- Skill in use of common software products such as Word, PowerPoint and Excel.
- Skill to adopt complex, modern information technology and communication tools.
- Skill in drafting end user and technical documentation.

Abilities Statements:

- Ability to solve complex issues requiring coordination, technical ability, and knowledge of computer and information systems to evaluate alternatives.

Policy

Ensures that information projects adhere to relevant laws, rules, policies, procedures and regulations.

Knowledge Statements:

- Knowledge of applicable laws, statutes, policies and procedures regarding public health and health information.
- Knowledge of types of agreements such as data use agreements and memorandums of understanding that govern data access and sharing.
- Knowledge of policies and Standard Operating Procedures (SOPs) specific to IIS operations.
- Knowledge of records management.
- Knowledge of recommended schedules.

Skills Statements:

- Skill in appropriately applying IIS policies and procedures to specific situations.
- Skill to use relevant information to determine whether events or processes comply with laws, regulations, standards or procedures.
- Skill to develop standard operating procedures.
- Skill in interpreting laws, rules, policies and procedures and applying interpretations to specific situations.
- Skill in use of contact management software and applications.

Abilities Statements:

- Ability to apply public health laws, regulations, and policies specific to the Immunization Program.
- Ability to quickly learn processes, and practices.
- Ability to recommend modifications or enhancements to systems and policies.
- Ability to use relevant information and individual judgment to determine whether events or processes comply with laws, regulations, or standards.

Communication

Practices active, effective communication between IT, public health and other relevant stakeholders.

Skills Statements:

- Skill in use of phone, email, FAX, text messaging, instant messaging, and other telecommunications methods.
- Skill in communicating in writing, orally, electronically and in person with linguistic and cultural proficiency.
- Skill in applying effective communication and group dynamic strategies in interactions with individuals and groups.
- Skill in communicating the role of public health within the health system and community to diverse audiences.
- Skill in effectively communicating the capabilities and limitations of information systems.
- Skill in communicating orally to explain decisions, services, or programs.
- Skill in resolving problems through negotiation.
- Skill in managing a high-volume of incoming calls and requests from diverse stakeholders and populations.

Abilities Statements:

- Ability to build mutual trust, respect and cooperation among team members.
- Ability to communicate effectively to technical and non-technical audiences in both written and oral methods.
- Ability to contribute as a strong member of a self-directed work team.
- Ability to develop constructive and cooperative working relationships with others, and maintain them over time.
- Ability to effectively express ideas orally and in writing using appropriate language and organizing ideas in an objective manner.
- Ability to translate or explain what information means and how it can be used.
- Ability to effectively communicate the capabilities and limitations of information technologies.
- Ability to represent the Program as a staff person for project, advisory, or technical committees.



Analysis, Visualization & Reporting

Translates data to information and knowledge that leads to action using consistent analytic and reporting tools and techniques.

Knowledge Statements:

- Knowledge of techniques sufficient to collect, analyze, interpret and summarize data in a narrative or graphical format.

Skills Statements:

- Skill to analyze business needs and product requirements to create or design a system enhancement.
- Skill to analyze business needs and product requirements to create or design a system enhancement.
- Skill in writing clear and concise narratives and statistical summaries.
- Skill in composing written and oral responses to inquiries, narrative reports, instructional materials.

Abilities Statements:

- Ability to apply general rules to specific problems.
- Ability to exercise appropriate judgment in determining when an issue or problem needs referral to management or other staff.
- Ability to analyze, evaluate and solve procedural problems.
- Ability to interpret technical materials to evaluate alternative technical solutions to address agency needs.

- Ability to research and design the techniques, methods, and principles used in complex data analysis.
 - Ability to read and interpret technical materials to better assist end users.
 - Ability to understand the implications of new information for both current and future problem-solving and decision-making.
-

Evaluation

Applies rigorous methods to evaluate the effectiveness of workflows and information technology.

Knowledge Statements:

- Knowledge of general data quality concepts.

Skills Statements:

- Skill to identify complex problems and review related information to develop and evaluate options and implement solutions.

Abilities Statements:

- Ability to use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
-

Principles & Strategy

Applies informatics principles, strategic thinking, and leadership techniques to public health information needs.

Knowledge Statements:

- Knowledge of the development of IIS systems over time.
- Knowledge of the multiple purposes and audiences that leverage IIS data and functionality, and the methods by which they access IIS data.
- Knowledge of the basic concepts of vaccine management, such as inventory and accountability.
- Knowledge of healthcare systems and practices.

Abilities Statements:

- Ability to work independently with little or no supervision.
 - Ability to work well in a high-pressure environment.
 - Ability to apply high attention to detail to work products.
 - Ability to use independent judgment, decision making and problem resolution to perform technical, operational, or administrative functions.
 - Ability to learn the organizational structures, roles, and interrelationships of local public health agencies, private health care organizations, private practices, school health and health plans.
-

Training

Effectively applies concepts of adult learning theory to educating a broad range of technical, programmatic and clinical audiences.

Knowledge Statements:

- Knowledge of techniques and methods of disseminating technical and programmatic information with external partners and stakeholders.

Abilities Statements:

- Ability to prepare, present and train on highly complex technical material and issues to non-specialists.



Immunization Information System (IIS) Trainer

Sample Role Description

March 2016

Note: This role description is meant to offer sample language and a comprehensive list of potential desired responsibilities with corresponding knowledge, skills and abilities (KSAs). Actual position descriptions should filter out information that is not applicable for a specific position or role. Depending on staffing levels, several roles may be combined within a single position, or several positions may fill the same role. The term “Immunization Information System” or “IIS” may be replaced with “Registry” within position titles in some jurisdictions.

Trainer

IIS Trainer is a role typically found in a mid-level health education or training classification series.

Scope

The person fulfilling this role is responsible for providing outreach for provider and partner participation, training new and existing users, and developing training and communications tools and messages. This role may also oversee or coordinate the activities of customer support/help desk staff. This role may manage contacts for all IIS end users and partner organizations, documenting and/or assigning identifiers for individuals, provider sites, schools, vendors, or other partners submitting or querying IIS information.

Budget Authority

This role may offer input into budget issues or contribute to grant writing or reporting efforts that involve current or future funding.

Position Titles

The following example job titles were gathered from existing positions at state and local health agencies:

- IIS Trainer
- Outreach Coordinator
- Training Lead
- Program Coordinator
- Regional Trainer
- Trainer
- Education and Training Specialist
- Education and Training Coordinator

Relationship

The person in this role typically reports to the IIS Manager. This role works very closely with—or in smaller programs may even fill¹—other health educator roles throughout the immunization program. This role may be combined with the help desk technician roles and/or the data entry role.

¹ To the extent this position would provide both IIS training and broader immunization education/training, consider listing a hiring preference for a [Certified Health Education Specialist](#) (CHES) [given the relevance of the competencies required for certification](#).

Decision Making Authority

This position exercises considerable independent judgment in carrying out responsibilities within a highly collaborative environment. Decision making authority is commonly characterized as follows:

- Advises in or contributes to the hiring of programmatic personnel.
- Analyzes, recommends and/or determines prioritization on enhancements and development based on programmatic priorities.
- Contributes to and makes recommendations on program or state level policy and practices related to data capture and data use.
- Determines need for outreach to new and existing partnerships with public and private providers, schools, child care facilities, and other external partners.
- Supports public and private providers in meeting statutory requirements as well as programmatic needs for data submission and data access.
- Identifies and enables use of programmatic data and information to improve organizational processes and performance.
- Assesses user needs and develops/provides training and information.
- Contributes to the development and adoption of local and national standards for IIS operations, and recommends best practices.
- Creates or assist in creating communication materials for the IIS and Program.

This position may provide input into, and exercise independent action on a wide range of activities including, but not limited to:

- The development or modification of statewide legislation or policy.
- Approaches to IIS interoperability and data capture
- Decisions regarding grant or cooperative agreement applications, implementation and/or reporting processes.

Major Duties and Responsibilities

This list contains examples of duties and responsibilities that may be associated with an IIS trainer role. This list offers many possible duties and responsibilities from which to select in order to create a position most appropriate to your program needs and your human resource requirements.

Developing Training Tools, Communication and Marketing Resources

- Develop training tools and guides for all partners, stakeholders, and end users of the IIS.
- Support and maintain initial design and subsequent modifications to the IIS pages of the public health website.
- Identify website needs and create content to address them.
- Monitor site content and assure content is current and accurate.
- Post updated materials and links as necessary.

Providing Outreach and Training, Representing IIS

- Provide initial and ongoing training to immunization program health education and/or AFIX-VFC site visit staff.
- Serve as the primary liaison to provider clinics, with emphasis on both private and public providers.
- Serve as liaison between IIS and other programs to integrate IIS into all aspects of Immunization Program, including Vaccines for Children (VFC) and Assessment, Feedback, Information and eXchange (AFIX) projects.

- Develop outreach plans to market program and cultivate partnerships.
- Serve as primary contact for stakeholder and sponsor concerns.
- Represent the program in immunization policy and statewide immunization information system areas.
- Present locally and nationally to professional and lay audiences on program data and outcomes.
- Provide consultation to program staff and managers, advisory committees, county health authorities, and medical and health providers on immunization issues, as well as existing or proposed laws and regulations.
- Assist with interpretation of public health data and population health assessments to determine appropriate course of action, program focus, and needed improvements to the registry.
- Respond to inquiries from private and public immunization partners from the field, as well as from the public-at-large.
- Monitor and assess IIS participation for both reporting and data access.
- Lead training of new functionality and assure that IIS user support is continuously available and production problems are addressed and resolved in a timely fashion.

Coordinating/Overseeing Training and/or Help Desk Staff

- Coordinate the work of a customer service team to respond to calls from health care providers, school personnel, childcare providers and other stakeholders.
- Lead team meetings, and facilitate discussions to arrive at consensus and resolve conflicts between team members.
- Coordinate policies and standard operating procedure documentation to guide operations.
- Mentor project teams, guide project plans to accomplish program goals and objectives.
- Assist with funding, planning, contracts, and coordination with immunization management team and external partners/stakeholders.
- Provide specialized technical and public health expertise to oversee operations within the IIS.
- Assist with the review and interpretation of statutes, regulations, policy, technical guidance, confidentiality policies and implementation strategies for staff, management, other state and local government agencies, consultants, health providers, and the public.

Recommending, Planning and Tracking Enhancements

- Assist with comprehensive planning, policy development and technical consultation to achieve program goals.
- Develop strategies for major projects including goals, objectives, performance measures, and outcomes.
- Contribute to the design, development, testing and implementation of IIS functions and enhancements.

Functioning within an interdisciplinary team environment

- Consistently treat customers, stakeholders, partners, vendors and co-workers with dignity and respect.
- Create and maintain a work environment that is welcoming and respectful of diversity.
- Set clear guidelines and model expected professional behaviors.
- Other tasks as assigned.

Key Competencies

This list contains the key competency areas with corresponding examples of knowledge, skills, and abilities that may be associated with the IIS Trainer role. It is not all inclusive and may vary from position to position.

Standards and Interoperability

Applies informatics standards to ensure interoperability between disparate information systems.

Knowledge Statements:

- Knowledge of immunization terminology and practices, and the data elements that support them.
- Knowledge of relevant IIS standards, including HL7 2.x and SOAP/Web Services.
- Knowledge of IIS best practice documentation developed by the Modeling of Immunization Registry Operations Workgroup (MIROW).
- Knowledge of national initiatives such as Meaningful Use, and their impact on IIS and health information exchange.
- Knowledge of standardized IIS business rules and best practices.
- Knowledge of public health reporting standards.

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
 - Ability to quickly learn new terminology.
-

Project Management

Practices project management and program management techniques to engage stakeholders and team members in achieving goals and expectations.

Knowledge Statements:

- Knowledge of diverse IIS stakeholders and funding mechanisms.
- Knowledge of principles, methods and standards of project management.
- Knowledge of the outputs of computer query and reporting tools, such as SQL, Crystal Reports, Business Objects or Excel to support technical staff in running reports.

Skills Statements:

- Skill to develop specific goals and plans to prioritize, organize, and accomplish work.
- Skill to document status and outputs of projects and processes.
- Skill to engage in testing of information solutions using appropriate methodologies and techniques.

Abilities Statements:

- Ability to balance multiple, competing program demands.
 - Ability to establish long-range objectives and specify the strategies and actions to achieve them.
-

Information Systems

Applies fundamental knowledge of hardware, software (including business rules and algorithms), and network infrastructure essential to ensuring that public health requirements are met.

Knowledge Statements:

- Knowledge of health information systems.
- Knowledge of large databases and database functions/utilities.
- Knowledge of electronic data transfer methods.
- Knowledge of the Systems Development Life Cycle (SDLC).

Skills Statements:

- Skill in use of common software products such as Word, PowerPoint and Excel.
- Skill to adopt complex, modern information technology and communication tools.
- Skill in drafting end user and technical documentation.

Abilities Statements:

- Ability to solve complex issues requiring coordination, technical ability, and knowledge of computer and information systems to evaluate alternatives.
-



Policy

Ensures that information projects adhere to relevant laws, rules, policies, procedures, and regulations.

Knowledge Statements:

- Knowledge of applicable laws, statutes, policies and procedures regarding public health and health information.
- Knowledge of types of agreements such as data use agreements and memorandums of understanding that govern data access and sharing.
- Knowledge of policies and Standard Operating Procedures (SOPs) specific to IIS operations.
- Knowledge of records management.
- Knowledge of recommended schedules.
- Knowledge of information security and privacy laws/policies as well as appropriate procedures to manage confidential data.

Skills Statements:

- Skill in appropriately applying IIS policies and procedures to specific situations.
- Skill to use relevant information to determine whether events or processes comply with laws, regulations, standards or procedures.
- Skill to develop standard operating procedures.
- Skill in interpreting laws, rules, policies and procedures and applying interpretations to specific situations.

Abilities Statements:

- Ability to apply public health laws, regulations, and policies specific to the Immunization Program.
 - Ability to quickly learn processes, and practices.
 - Ability to use relevant information and individual judgment to determine whether events or processes comply with laws, regulations, or standards.
-



Communication

Practices active, effective communication between IT, public health and other relevant stakeholders.

Skills Statements:

- Skill in use of phone, email, fax, text messaging, instant messaging and other telecommunications methods.
- Skill in communicating in writing, orally, electronically and in person with linguistic and cultural proficiency.

- Skill in applying effective communication and group dynamic strategies in interactions with individuals and groups.
- Skill in communicating the role of public health within the health system and community to diverse audiences.
- Skill in effectively communicating the capabilities and limitations of information systems.
- Skill in collaborating with a wide range of internal and external stakeholders including policy makers, health care and social services, end users, agency leaders and community.
- Skill in communicating orally to explain decisions, services or programs.
- Skill in resolving problems through negotiation.
- Skill in stakeholder engagement and collaboration.

Abilities Statements:

- Ability to build mutual trust, respect and cooperation among team members.
- Ability to communicate effectively to technical and non-technical audiences in both written and oral methods.
- Ability to contribute as a strong member of a self-directed work team.
- Ability to develop constructive and cooperative working relationships with others, and maintain them over time.
- Ability to effectively express ideas orally and in writing using appropriate language and organizing ideas in an objective manner.
- Ability to translate or explain what information means and how it can be used.
- Ability to effectively communicate the capabilities and limitations of information technologies.
- Ability to represent the Program as a staff person for project, advisory, or technical committees.
- Ability to apply tact and diplomacy to gain cooperation of others.

**Analysis, Visualization & Reporting**

Translates data to information and knowledge that leads to action using consistent analytic and reporting tools and techniques.

Knowledge Statements:

- Knowledge of techniques sufficient to collect, analyze, interpret and summarize data in a narrative or graphical format.
- Knowledge of business process analysis.

Skills Statements:

- Skill to analyze business needs and product requirements to create or design a system enhancement.

Abilities Statements:

- Ability to apply general rules to specific problems.
- Ability to exercise appropriate judgment in determining when an issue or problem needs referral to management or other staff.
- Ability to read and interpret technical materials to better assist end users.
- Ability to analyze, evaluate and solve procedural problems
- Ability to interpret technical materials to evaluate alternative technical solutions to address agency needs.
- Ability to understand the implications of new information for both current and future problem-solving and decision-making.

-

Evaluation

Applies rigorous methods to evaluate the effectiveness of workflows and information technology.

Knowledge Statements:

- Knowledge of general data quality concepts.
- Knowledge of detailed quality assurance and improvement methodology.

Skills Statements:

- Skill to identify complex problems and review related information to develop and evaluate options and implement solutions.

Abilities Statements:

- Ability to use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
-

Principles & Strategy

Applies informatics principles, strategic thinking, and leadership techniques to public health information needs.

Knowledge Statements:

- Knowledge of the development of IIS systems over time.
- Knowledge of the multiple purposes and audiences that leverage IIS data and functionality, and the methods by which they access IIS data.
- Knowledge of the basic concepts of vaccine management, such as inventory and accountability.
- Knowledge of healthcare systems and practices.

Abilities Statements:

- Ability to work independently with little or no supervision.
 - Ability to work well in a high-pressure environment.
 - Ability to apply high attention to detail to work products.
 - Ability to use independent judgment, decision making and problem resolution to perform technical, operational, or administrative functions.
 - Ability to learn the organizational structures, roles, and interrelationships of local public health agencies, private health care organizations, private practices, school health, and health plans.
 - Ability to correctly assess the political and institutional environment in which decisions are made and implemented.
-

Training

Effectively applies concepts of adult learning theory to educating a broad range of technical, programmatic and clinical audiences.

Knowledge Statements:

- Knowledge of techniques and methods of disseminating technical and programmatic information with external partners and stakeholders.
- Knowledge of best practices in communications and training for adults.

Skills Statements:

- Skill in creating and implementing trainings and presentations.
- Skill in developing and writing effective training and promotional materials.

- Skill in the development and use of distance training methods, including conference call and webinar tools.
- Skill to design, plan and implement trainings for a wide variety of audiences.

Abilities Statements:

- Ability to prepare, present and train on highly complex technical material and issues to non-specialists.

IIS Competency Domain Model

Knowledge, Skills and Abilities for IIS Job Roles

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IIS Competency Domain Models

Standards and Interoperability

Description

Applies informatics standards to ensure interoperability between disparate information systems.

Knowledge of:

- Immunization terminology and practices, and the data elements that support them.
- Relevant IIS standards, including HL7 2.x and SOAP/Web services.
- IIS best practice documentation developed by the Modeling of Immunization Registry Operations Workgroup (MIROW).
- National initiatives such as Meaningful Use, and their impact on IIS and health information exchange.
- Standardized IIS business rules and best practices.
- Public health reporting standards.
- Clinical Decision Support Specifications developed by CDC.

Ability to:

- Apply local and national standards consistently.
- Quickly learn data fields commonly used in clinical practices to record vaccination encounters.
- Quickly learn new terminology.

Project Management

Description

Practices project management and program management techniques to engage stakeholders and team members in achieving goals and expectations.

Knowledge of:

- Principles, methods and standards of project management.
- The principles of work organization and simplification.
- The outputs of computer query and reporting tools, such as SQL, Crystal Reports, Business Objects or Excel to support technical staff in running reports.
- Change management.
- Strategies for effective planning and management of informatics projects/programs based on business and management requirements.
- Diverse IIS stakeholders and funding mechanisms.

Skill to:

- Develop specific goals and plans to prioritize, organize, and accomplish work.
- Document status and outputs of projects and processes.
- Engage in testing of information solutions using appropriate methodologies and techniques.
- Coordinate diverse activities to ensure completion of projects, tasks and assignments.
- Apply fact-finding and work measurement techniques to organization systems.
- Synthesize diverse facts, opinions and materials into usable work plans.
- Apply quality management and improvement tools and processes to operational problems.
- Oversee testing of information solutions using appropriate methodologies and techniques.
- Manage information system projects.

**Ability to:**

- Balance multiple, competing program demands.
- Establish long-range objectives and specify the strategies and actions to achieve them.
- Synthesize voluminous and diverse facts, opinions and materials into usable work plans.

Information Systems

Description

Applies fundamental knowledge of hardware, software (including business rules and algorithms), and network infrastructure essential to ensuring that public health requirements are met.

Knowledge of:

- Health information systems.
- Large databases and database functions/utilities.
- Electronic data transfer methods.
- Automated software applications such as IIS.
- Relevant software and computer query and reporting tools, such as SQL, Crystal Reports, Business Objects or Excel to run reports.
- Testing and troubleshooting techniques.
- Information system analysis, design and data management concepts.
- Health related vendor products such as EHRs.
- Analyzing and proposing system development or enhancement tasks.
- Basic system performance monitoring and tuning techniques.
- Computer hardware and system operations.
- The Systems Development Life Cycle (SDLC).

Skill in:

- Use of common software products such as Word, PowerPoint and Excel.
- Adopting complex, modern information technology and communication tools.
- Drafting end user and technical documentation.

Ability to:

- Solve complex issues requiring coordination, technical ability, and knowledge of computer and information systems to evaluate alternatives.

Policy

Description

Ensures that information projects adhere to relevant laws, rules, policies, procedures and regulations.

Knowledge of:

- Applicable laws, statutes, policies and procedures regarding public health and health information.
- Types of agreements such as data use agreements and memorandums of understanding that govern data access and sharing.
- Policies and Standard Operating Procedures (SOPs) specific to IIS operations.
- Records management.
- Recommended schedules.



- Information security and privacy laws/policies as well as appropriate procedures to manage confidential data.
- The executive and legislative decision making process.

Skill to:

- Appropriately apply IIS policies and procedures to specific situations.
- Use relevant information to determine whether events or processes comply with laws, regulations, standards or procedures.
- Develop standard operating procedures.
- Interpret laws, rules, policies and procedures and apply interpretations to specific situations.
- Use contact management software and applications.

Ability to:

- Apply public health laws, regulations and policies specific to the immunization program.
- Quickly learn processes and practices.
- Recommend modifications or enhancements to systems and policies.
- Establish procedures for diagnosing and solving technical problems.
- Use relevant information and individual judgment to determine whether events or processes comply with laws, regulations or standards.
- Use relevant information and individual judgment to determine whether events or processes comply with policies and procedures.

Communication

Description

Practices active, effective communication between IT, public health and other relevant stakeholders.

Knowledge of:

- Methods and procedures of technical report writing.
- Methods for presenting statistical, demographic, programmatic and scientific information to professional and lay audiences.

Skill in:

- Use of phone, email, fax, text messaging, instant messaging and other telecommunications methods.
- Communicating in writing, orally, electronically and in person with linguistic and cultural proficiency.
- Applying effective communication and group dynamic strategies in interactions with individuals and groups.
- Communicating the role of public health within the health system and community to diverse audiences.
- Effectively communicating the capabilities and limitations of information systems.
- Collaborating with a wide range of internal and external stakeholders including policy makers, health care and social services, end users, agency leaders, and community.
- Managing a high-volume of incoming calls and requests from diverse stakeholders and populations.
- Communicating orally to explain decisions, services or programs.
- Resolving problems through negotiation.
- Stakeholder engagement and collaboration.



Ability to:

- Build mutual trust, respect and cooperation among team members.
- Communicate effectively to technical and non-technical audiences in both written and oral methods.
- Contribute as a strong member of a self-directed work team.
- Develop constructive and cooperative working relationships with others, and maintain them over time.
- Effectively express ideas orally and in writing using appropriate language and organizing ideas in an objective manner.
- Translate or explain what information means and how it can be used.
- Effectively communicate the capabilities and limitations of information technologies.
- Represent the program as a staff person for project, advisory or technical committees.
- Work effectively with senior-level decision-makers and their immediate staff members.
- Apply tact and diplomacy to gain cooperation of others.
- Clearly explain public health informatics and programmatic policies, programs and resources related to IIS.

Analysis, Visualization and Reporting

Description

Translates data to information and knowledge that leads to action using consistent analytic and reporting tools and techniques.

Knowledge of:

- Techniques sufficient to collect, analyze, interpret and summarize data in a narrative or graphical format.
- The methods for analyzing and proposing system development tasks.
- Business process analysis.
- Standards and precedents for data design and formatting.
- Public health sciences, including behavioral, social sciences, biostatistics and epidemiology.

Skill to:

- Analyze business needs and product requirements to create or design a system enhancement.
- Determine how a system should work and how changes in conditions, operations and the environment will affect the outcomes.
- Analyze business needs and product requirements to create or design a system enhancement.
- Write clear and concise narratives and statistical summaries.
- Use database analysis software and applications.
- Conduct statistical analyses of program data and interpret the results of the analyses.
- Compose written and oral responses to inquiries, narrative reports and instructional materials.

Ability to:

- Apply general rules to specific problems.
- Exercise appropriate judgment in determining when an issue or problem needs referral to management or other staff.
- Combine pieces of information to form general rules or conclusions.
- Analyze, evaluate and solve procedural problems.
- Interpret technical materials to evaluate alternative technical solutions to address agency needs.
- Research and design the techniques, methods and principles used in complex data analysis.



- Understand the implications of new information for both current and future problem-solving and decision-making.
- Read and interpret technical materials to better assist end users.

Evaluation

Description

Applies rigorous methods to evaluate the effectiveness of workflows and information technology.

Knowledge of:

- General data quality concepts.
- Detailed quality assurance and improvement methodology.

Skill to:

- Identify complex problems and review related information to develop and evaluate options and implement solutions.
- Identify measures or indicators of system performance and the actions needed to improve or correct performance, relative to the goals of the system.

Ability to:

- Evaluate information against a set of standards of information integrity and comparability.
- Use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- Use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- Evaluate work products to ensure program objectives and agency needs are met.

Principles and Strategy

Description

Applies informatics principles, strategic thinking and leadership techniques to public health information needs.

Knowledge of:

- The development of IISs over time.
- The multiple purposes and audiences that leverage IIS data and functionality, and the methods by which they access IIS data.
- The basic concepts of vaccine management, such as inventory and accountability.
- Health care systems and practices.
- Management practices related to business operations including human resources, budgeting and financial analysis, and performance improvement.
- Methods and techniques of the analysis and reporting of financial data.
- Principles, methods and standards of program management.
- Principles, practices, and trends in public administration, business operations and management.
- Procurement of goods and services through contract agreements and experience administering standard contracts or agreements.
- Strategies for achieving effective data acquisition, management, quality, storage, use and application to address population health needs.
- The state budgetary process, including analysis of state and federal revenues and expenditures.

- Theory and principles of organizational systems and the methods of application to government operations.
- Theory, principles and practices of organizational behavior, analysis and evaluation.

Skill in:

- Monitoring or assessing performance of other individuals or organization systems to make improvements or take corrective action.
- Effective grant writing.
- Human relations and management.
- Applying principles, theories and practices of public administration and management to support health informatics practices in order to meet organizational objectives.
- Using grant/solicitation/collaboration software and/or online services and other systems as designed to support grant management, accounting and reporting.
- Accurately recording and entering data.

Ability to:

- Work independently with little or no supervision.
- Work well in a high-pressure environment.
- Apply high attention to detail to work products.
- Use independent judgment, decision making and problem resolution to perform technical, operational or administrative functions.
- Learn the organizational structures, roles and interrelationships of local public health agencies, private health care organizations, private practices, school health and health plans.
- Correctly assess the political and institutional environment in which decisions are made and implemented.
- Collaborate with governmental and non-governmental organizations to meet the information needs of a wide range of users and data sharing partners.
- Recommend, select and utilize practices and tools in support of public health data acquisition, management, analysis, planning and reporting.

Training

Description

Effectively applies concepts of adult learning theory to educating a broad range of technical, programmatic and clinical audiences.

Knowledge of:

- Techniques and methods of disseminating technical and programmatic information with external partners and stakeholders.
- Best practices in communications and training for adults.

Skill in:

- Creating and implementing trainings and presentations.
- Developing and writing effective training and promotional materials.
- The development and use of distance training methods, including conference call and webinar tools.
- Designing, planning and implementing trainings for a wide variety of audiences.

Ability to:

- Prepare, present and train on highly complex technical material and issues to non-specialists.