



Senior Healthcare Data Analyst Position Description Delaware Health Information Network (DHIN)

Organization Background

The Delaware Health Information Network (DHIN) is the nation's first statewide health information exchange. Established by statute as a not-for-profit public instrumentality, DHIN's primary mission is to facilitate the design and implementation of an integrated, statewide health data system to support the information needs of consumers, health plans, policymakers, providers, purchasers and researchers to improve the quality and efficiency of health care services in Delaware. Participation in DHIN by the health care community of Delaware is nearly universal, with expansion beyond state borders also having begun. DHIN is recognized as a national leader in the area of health information exchange.

Position Overview

The Senior Analyst serves as a member of DHIN's analytics service team to meet the informational needs of health care providers, payers, Delaware's State agencies, students and researchers working to improve health care for Delaware's residents. The senior analyst's primary role is to fulfill customer analytic requests by creating customer centric data visualizations using clinical, claims and operational data. As the Senior support person, this position will be responsible for developing repeatable reliable analytic tools to be used by the analytic team. This person will be responsible for DHIN's analytic knowledge library. Specifically, the Senior Analyst will be the primary analytical and research support person for DHIN's internal and external analytical services.

The Senior Analyst will perform their principle duties under the Scope of Work section at SFIA levels 4 and 5 as described below.

Autonomy	Works under general direction within a clear framework of accountability. Exercises substantial personal responsibility and autonomy. Plans own work to meet given objectives and processes.
Influence	Influences customers, suppliers and partners at account level. May have some responsibility for the work of others and for the allocation of resources. Participates in external activities related to own specialism. Makes decisions which influence the success of projects and team objectives. Collaborates regularly with team members, users and customers. Engages to ensure that user needs are being met throughout.
Complexity	Performs an extensive range and variety of complex technical and/or professional work activities. Undertakes work which requires the application of fundamental principles in a wide and often unpredictable range of contexts. Understands the relationship between own specialism and wider customer/organizational requirements.
Knowledge	Is fully familiar with recognized industry bodies of knowledge both generic

	and specific. Actively seeks out new knowledge for own personal development and the mentoring or coaching of others. Develops a wider breadth of knowledge across the industry or business. Applies knowledge to help to define the standards which others will apply.
Business skills	Demonstrates leadership. Communicates effectively, both formally and informally. Facilitates collaboration between stakeholders who have diverse objectives. Analyses, designs, plans, executes and evaluates work to time, cost and quality targets. Analyses requirements and advises on scope and options for continuous operational improvement. Takes all requirements into account when making proposals. Demonstrates creativity, innovation and ethical thinking in applying solutions for the benefit of the customer/stakeholder. Advises on the available standards, methods, tools and applications relevant to own specialism and can make appropriate choices from alternatives. Maintains an awareness of developments in the industry. Takes initiative to keep skills up to date. Mentors colleagues. Assesses and evaluates risk. Proactively ensures security is appropriately addressed within their area by self and others. Engages or works with security specialists as necessary. Contributes to the security culture of the organization.

The ideal candidate will be prepared to step outside of traditional job boundaries to meet the needs of the moment in support of the DHIN mission, and therefore must be flexible and adaptable to changing circumstances. A strong work ethic and ability to work well within a team are essential. The ideal candidate must have strong computer skills and excellent verbal and written communication skills, be exceedingly well organized, attentive to detail, flexible, proactive, resourceful and efficient, and must remain poised and composed under pressure and maintain utmost confidentiality and professionalism in handling protected health information and information which is proprietary and confidential to DHIN’s vendors and technology partners. DHIN seeks candidates who are committed to lifelong learning and growth.

The position is primarily located at the DHIN headquarters in Dover, DE. However, following a period of orientation, a great degree of flexibility in work hours and location are possible. Many of DHIN staff work from home one or more days each week.

Scope of Work:

Principle Duties and Responsibilities

1. Participate as a leading member of the Analytic Services team by participating in and facilitating internal and external customer meetings, contributing to analytic service documentation, DHIN’s analytic knowledge base and stored procedures.
2. Execute secure operations for personal health information during all interactions of the Analytic service processes.

3. Design and perform clinical and claims data analyses in support of internal and external customer requests.
4. Design and perform statistical tests to determine statistical significance, confidence level, validity and reliability of outcome.
5. Perform a lead role in the creation and maintenance of a stored procedure library used for analytic services.
6. Develop and write efficient and optimized queries to create end-user reports and extract data from source systems and instruct analytic team members on their use.
7. Lead consultations with customers to understand business needs and determine study requirements. This includes identifying viable technological solutions/options. Contribute
8. Apply and maintain knowledge of study/research designs for meeting customer business needs, particularly those for population health, healthcare quality benchmarking, equity and efficacy studies.
9. Write and develop the detailed specifications/record layouts and/or work flow diagrams from which reports and extracts will be created.
10. Perform necessary procedures to ensure the safety of information systems assets and to protect systems from intentional or inadvertent access or destruction;
11. Leads functional or segment teams or projects.
12. Contribute to the continuous evaluation of data quality, and efficiencies of analytic business processes.
13. Develop and support automation of reports and their distribution.
14. Establish relationships with customers and data senders serving as a subject matter expert for clinical and claims data.
15. Maintain and promote knowledge of DHIN's analytical tools and data environments.
16. Anticipate customer needs and proactively develop solutions to meet them.
17. Contribute to DHIN's analytic service performance reporting.
18. Contribute to data validation of claims data and the Extract Transform Load process.
19. Contribute to documentation for data dictionaries.
20. Function as a practitioner of continuous service improvement (Stage 5 of the IT Service Management Lifecycle). Support organizational service improvement projects with baseline and follow-up analysis of data.
21. Review analytic work performed by others and provide recommendations for improvement.
22. Contribute to and adhere to DHIN procedures for managing analytics services.
23. Serve as support to internal and external customers learning the DHIN analytics environment.
24. Solve complex problems and develop innovative solutions.
25. Function in this role at SFIA Level 5

Supervision Received

- The position reports to the Director of Data Analytics

- Confidently interacts with executive leadership

Supervision Exercised

- The position has no direct reports, but exerts leadership and strong influencing skills
- May lead matrixed teams and provide coaching and mentoring to junior staff and/or stakeholder resources.

Job Impact

- Work performed in this position impacts thousands of users of the DHIN system across the entire state of Delaware and into bordering states.
- Budget impact of this position is **small**
- Timeline of projects is varied. Can be 2 days, 2 weeks or up to 6 months.

Key Competencies

The following are the minimal knowledge, skills, and abilities which the Sr. Analyst must possess:

- Thorough understanding of database and analytics functionality and ETL tools; deep knowledge of database and data quality principles, practices, and theories.
- Knowledgeable of healthcare quality measures: AHRQ, NCQA, CMS and the state of Delaware.
- Thorough understanding and demonstrated ability to prepare data and perform statistical analyses, both descriptive and advanced statistics such as factor analysis, ANOVA, regression, etc.
- Highly knowledgeable in study and research design with demonstrated ability to apply designs appropriately. E.g. correlational, comparative, longitudinal, experimental, meta-analysis, epidemiological, population health etc.
- Demonstrated ability to understand and develop customer requirements and business objectives; ability to translate high-level design into specific implementation steps. Profound understanding of the needs of stakeholders and the impact on end users.
- Demonstrated ability to transform ad hoc and manual processes into sustainable, repeatable, scalable, and automated solutions.
- Functional understanding of HL7 messages.
- Strong command of analytic languages, softwares and their environments with ability to learn additional languages as needed. Desired skills in SQL, No SQL, ODBC, ElasticSearch, Kibana, Athena, Tableau, AWS and Couchbase.
- Demonstrated ability to provide visualizations of data analysis such as scorecards, dashboards, KPI's and traditional analytical & production reports
- Strong data management and operations skills with a successful track record of design and execution of analytic services.
- Demonstrated ability to establish and maintain effective relationships and partnerships with key stakeholders.
- Strong interpersonal, communication, facilitation, and presentation skills.
- Strong analytical and problem solving skills.
- Ability to work independently and with minimal supervision.
- Demonstrated ability to work effectively in a small team setting.

- Ability to prioritize and organize work effectively and under pressure.
- Organized, resourceful, and proficient at effectively multitasking to ensure competing priorities are addressed in a timely and efficient manner.
- Self-starter who pays extreme attention to detail and strives for excellence.
- High degree of professionalism and personal qualities of integrity, credibility and a commitment to the mission of DHIN.

Qualifications

The successful candidate will possess the following experience and credentials:

- A Master's degree in a related field is desired. A candidate with a Bachelor's degree and equivalent work experience will be considered in exceptional circumstances.
- Evidence of formal training in analytic tools and methodologies.
- 5 years' experience with health care data, clinical and claims.
- Skilled in query languages and software for data manipulation and visualization such as Python, SQL, Microsoft Access, Athena, Tableau or other compatible tools. FHIR, JSON and API tools are a plus.
- 5 years' experience in statistical analyses with command of descriptive statistical tools. Experience with inferential statistics and statistical analyses in complex research models a plus.
- At least eight years of increasingly responsible database or data quality experience, with emphasis on experience in IT integration projects. Experience in health IT and knowledge of HL7 is required.
- Experience managing multiple projects simultaneously in a matrixed environment is preferred
- Proficient in the use of technology to support work activities e.g., expertise in database extraction and ETL tools, data quality analysis, and proven ability to develop charts and graphs to summarize information for reporting purposes, etc.
- All DHIN employees are expected to be certified in ITIL Foundations, or commit to becoming certified within the first year of employment. This is a condition of employment.