

Health Data Quality Analytics Manager 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 near universal, with expansion beyond state borders also having begun. DHIN is recognized as a national leader in health information exchange.

Position Overview

The Analytics Manager 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. This person's primary role is to drive solutions to optimize construction, deployment and use of data for effective creation of descriptive and predictive analytic solutions by both internal and external (DHIN) stakeholders. This includes working with both internal and external clients to align data strategy with analytic requirements, for both descriptive and predictive analytics. A key component will be taking a lead role in data construction to support hypothesis design and testing. This individual will also have the secondary role of defining and optimizing our analytic environment and processes, to drive resource efficiency and optimize speed to market. This will include evaluating current technology solutions in use for innovative alternatives, determining effectiveness how well we use existing technologies and lastly whether our analytic environment can effectively support current and future analytic work product.

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 the 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 DHIN staff work from home one or more days each week.

The Analytics Manager exercises responsibilities and skills at SFIA levels 4 & 5:

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 industry or business. Applies knowledge to help to define the standards which others will apply.
Business skills	<p>Communicates fluently, orally and in writing, and can present complex information to both technical and non-technical audiences.</p> <p>Plans, schedules, and monitors work to meet time and quality targets.</p> <p>Facilitates collaboration between stakeholders who share common objectives.</p> <p>Selects appropriately from applicable standards, methods, tools, and applications.</p> <p>Fully understands the importance of security to own work and the operation of the organization. Seeks specialist security knowledge or advice when required to complete your own work or that of immediate colleagues.</p>

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. Ensure the specifications, or other documentation needed to support customer study design needs are clinically accurate and appropriate.
3. Design and develop tools for analysts to use that ensure appropriate application of design of experiment.
4. Execute secure operations for personal health information during all interactions of the Analytic service processes.

5. Design and perform clinical and claims data analyses in support of internal and external customer requests.
6. Design, direct, or perform statistical tests to determine significance, confidence level, validity, and reliability of outcome.
8. Lead consultations with customers to understand business needs and determine study requirements. This includes identifying study methodologies and viable technological solutions/options.
9. Prepare and provide presentations to stakeholders and professional organizations to which DHIN has subscribed. Stakeholder presentations should ensure stakeholder engagement and satisfaction with DHIN's analytic services.
10. 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.
11. Perform necessary procedures to ensure the safety of information systems assets and to protect systems from intentional or inadvertent access or destruction.
12. Lead functional or segment teams or projects.
13. Contribute to the continuous evaluation of data quality, and efficiencies of analytic business processes.
14. Support automation of reports and their distribution.
15. Seek out, establish, and maintain relationships with customers, data senders and healthcare institutions serving as a subject matter expert for clinical and claims data.
17. Maintain and promote knowledge of DHIN's analytical tools and data environments.
18. Anticipate customer needs and proactively develop solutions to meet them.
19. Contribute to DHIN's analytic service performance reporting.
20. Consult for data validation of claims data and the Extract Transform Load process.
21. Consult for documentation for data dictionaries.
22. Function as a practitioner of continuous service improvement (Stage 5 of the Information Technology Service Management Lifecycle). Support organizational service improvement projects with baseline and follow-up analysis of data.
23. Review analytic work performed by others and provide recommendations for improvement.
24. Contribute to and adhere to DHIN procedures for managing analytics services.
25. Serve as support to internal and external customers who may be learning the DHIN analytics environment.
26. Solve complex problems and develop innovative solutions.
27. Function in this role at SFIA Levels 4 and 5

Key Competencies

The following are the minimum knowledge, skills, and abilities which the Analytics Manager must possess:

- Clear understanding of A/B testing, design of experiment and multivariate analysis.
- Comprehensive 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 understanding of the alignment of analytic tools and architecture and the ability to articulate as part of a roadmap.
- Thorough understanding of database and analytics functionality and ETL tools; deep knowledge of database and data quality principles, practices, and theories.
- Demonstrated ability to establish and maintain effective relationships and partnerships with key stakeholders.
- Profound understanding of the needs of stakeholders and the impact on end users.
- Strong interpersonal, communication, facilitation, and presentation skills.
- Problem solving mindset, ability to identify cause and effect and drive process efficiency.
- Ability to work independently and with minimal supervision 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.

Supervision Received

- The position reports to the Director of Data Analytics.
- Confidently interacts with executive leadership, private and public clients, and contractors.

Supervision Exercised

- Implement standards and resource coaching opportunities to enable effective delivery of data designed to support hypothesis testing and analysis
- Offer meaningful feedback to clients to enable efficient completion of health care studies that drive meaningful insights and statistical findings.
- Exerts strong influencing skills on matters of data integrity.
- May lead matrixed teams and provide informal coaching and mentoring to junior and/or stakeholder resources.

Job Impact

- Work significantly affects members of the health care community across the entire state.
- Budget impact is small.
- Timeline of projects is varied. Can be 2 days, 2 weeks or up to 6 months.

Qualifications

- Bachelor Science Degree from accredited university.
- Master's degree in quantitative science.
- Minimum 7+ years' experience in analytics or business intelligence.
- Minimum 2+ years of project management experience – supporting portfolio, business intelligence and hypothesis construction and statistical testing.
- Minimum 2+ years in healthcare experience preferred.
- Experience with Postgres, Tableau, Couchbase -NoSQL and at least one analytic oriented programming language (R, Python, SAS) -we are looking for certifications and or LinkedIn Skills Assessment Badges that demonstrates level of expertise.
- Expertise in relational database structures.
- Expertise in data flows, conceptual knowledge of ETL, API, FHIR, XML, JSON.
- Experience leading cross-functional teams that include internal employees and contractors.
- Exerts strong influencing skills on matters of data integrity.
- Experience leading matrixed teams and providing informal coaching and mentoring to junior and/or stakeholder resources.