**Title** Clinical Data Scientist

**Location** Based in Boston, USA or
London, UK

**Reporting** Directly to ICHOM
Technical Project Leader

ICHOM is a not-for-profit committed to transforming healthcare to a value-based system through universal measurement and reporting patient outcomes. ICHOM builds global flagship programmes - developing, maintaining and implementing Standard Sets, collecting & benchmarking patient data. Standard Sets are created by groups of global experts including patients and doctors. The development of advanced data analytics will allow stakeholders to compare patient outcomes across the world. ICHOM is a small but ambitious organisation with offices in Boston and London (see ICHOM.org)

ICHOM now seeks a **Clinical Data Scientist** who will focus on supporting the digitalisation of our Standard Sets. We are looking for a passionate, skilled and experienced person with deep expertise from clinical data science and with a determination to make a real difference to patients' lives. You will be a team-player who enjoys working flexibly in a small, committed group.

### Technical skills

- A thorough understanding of health informatics, acquired either in industry or academia (MSc level or above) strongly preferred.
- Health data interoperability:
- Familiarity with the challenges associated with achieving interoperability of health data; preferably acquired in applied settings, such as with a healthcare provider or in industry.

### Detailed clinical information/data modeling

- Working knowledge of relevant methods, formats and standards for developing information models/logical models for health-related data. Examples include Clinical Element Models, Archetype Definition Language (ADL), OpenEHR and clinical information modeling platforms

such as Art Décor.

## Healthcare IT (HCIT) integration experience

- Working knowledge from developing common data models (CDM) and extract-transmission-load (ETL) architectures to map health data from an array of source systems (e.g. EHR, claims etc.) to a CDM.
- Working knowledge of relevant methods for data transmission, including formats and standards such as FHIRÒ, HL7 v2/3/CDA messaging.
- Thorough understanding of HCIT usability frameworks and an end-user centric mindset.

## Medical reference terminologies and terminology binding

- Working knowledge of common reference terminologies and classification systems such as LOINC, Snomed CT, ATC and ICD10.
- Working knowledge of tools and workbenches for terminology binding such as RELMA, Snomed CT browser etc.

## Data engineering & structures

- The applicant is expected to have strong skills in basic data structures such as SQL, JSON and XML, and the ability to freely translate between them. While the workbench used for data manipulation might be somewhat flexible, the current code base is written in Python, which is therefore strongly preferred.
- Good working knowledge of Git and GitHub, to maintain and ensure version handling and availability of the reference information model.
- Strong candidates will have experience from front end dashboard development. Relevant tools can include Python's Dash library, or even better React or similar interactive UI functionality.
- Experience from developing and designing architecture and pipelines for serializing data from source clinical data systems into common data models (CDM) that facilitate distributed analytics.

## Epidemiology and health outcomes research

- Working knowledge of epidemiologic or biostatistical analysis. Demonstrated proficiency in executing such analyses (e.g. through published academic papers) is desired.
- Basic to intermediate understanding of cost-effectiveness analysis or decision science.

**Communication**

- Full proficiency in written and spoken English.
- Evidence of strong written communication skills, such as from published academic papers, technical reports etc

**Travel:** The role will involve frequent international travel.

**Application:** Please submit a CV and a 1-page covering letter to: jobs@ichom.org The applicant must be prepared to offer references from earlier positions