The George Institute
for Global Health

Position Description	
POSITION TITLE	Head, Data Analytics
REPORTING RELATIONSHIP	Director, Biostatistics and Data Science
DIVISION	Biostatistics and Data Science
CAREER STEP	Professional / Expert
EMPLOYMENT DURATION	2 years (renewable)
TYPE OF EMPLOYMENT	Flexible
DATE	**1 July 2021**

The George Institute for Global Health

We are a medical research institute affiliated with leading universities aiming to challenge the status quo in health care. With 700+ people around the world, and projects in over 40 countries, our Strategy 2025 is all about impact – specifically, the impact of The George Institute's activities on the health of millions of people, particularly those living in disadvantaged circumstances around the world.

Our strategy focuses on three key research priorities:

- Better Treatments: finding better treatments for the world's biggest health problems
- Better Care: transforming primary health care to support better health for more people
- Healthier Societies: harnessing the power of communities, governments, and markets to improve health

Our innovative commercial enterprises help maximise our impact.

Here is a sample of the things we are doing to achieve our goal of having the greatest possible impact on global health:

- We are identifying better and safer treatments for our biggest killers like stroke, heart disease and high blood pressure
- In many countries, our award winning FoodSwitch smartphone app is helping people make healthy food choices when shopping
- In China, we ran a successful education and awareness program to reduce the amount of salt eaten by people by 25% each day
- In rural India, we have shown that mobile technology can help diagnose mental health, as well as help treat cardiovascular disease, and we're looking at similar approaches to treating chronic diseases in Indonesia and China
- Together with Aboriginal communities in NSW, Australia, we developed an innovative community led program to assist young Aboriginal drivers attain their license, now implemented in a dozen of locations
- We are developing an affordable dialysis machine, with potential to save millions of lives each year and transform the way kidney disease is treated globally.

Context of the Role

Given the increase in the size and complexity of health data as well as recent advances in machine learning applications, there is an opportunity to use innovative analytics approaches in health.

To develop capacity and provide a coordinated data analytics strategy we wish to establish a global data analytics program to act as a hub providing methodological guidance, services and training focused on machine learning and visual analytics methods. The data analytics program will be central to our 2025 research strategy which is aimed at finding better treatments and delivering better health across the world.

Here are some examples of current or planned machine learning applications:
- Using CT scans to predict post-stroke outcomes
- Identifying patterns of co-morbidities in India and the UK
- Automating the adjudication of clinical events in cardiovascular trials

The Role
The Head, Data Analytics will be responsible for overall leadership of the Global Data Analytics program, in conjunction with the Director, Biostatistics and Data Science. The role will act as the key point of contact internally and externally, coordinate activities (e.g. training or provision of services), develop capacity, systems and processes, lead funding applications, and grow and lead the Data Analytics team etc.

Reporting Relationships
The Head, Data Analytics will report to the Director of the Biostatistics and Data Science Division. Initially, the Head, Data Analytics may not have staff reporting directly to the role; however, they would be expected to engage with a number of internal stakeholders involved with or interested in the application of analytics methods.

The Head, Data Analytics will be responsible for growing the program, and will manage senior/data scientists / analysts once a team is established.

Duties and Key Responsibilities
- Leadership and coordination of the data analytics program
- Develop and grow internal data analytics capacity (e.g. organise internal seminars, workshops, forums etc related to machine learning and data analytics)
- Management of data scientists
- Lead/Develop research projects (once program more established)
- Supervise data science/analytics students and/or interns
- Strengthen/establish links with key strategy partners
- Contribute to Institute projects by applying machine learning and analytics methods
- Contribute to the creation of a standardised internal research data repository
- Collaborate with Institute researchers
- Contribute to the design and reporting of projects involving the use of data analytics methods
- Act as internal data analytics expert and be the key contact, both internally and externally,
- Keep abreast of methodological developments

As a Team Member:
- Participate in special projects to improve processes, tools, systems, and organisation
- Take responsibility for personal learning and development and for setting achievable and meaningful work objectives and managing personal targets, meeting obligations of The Institute's Performance Management and Development Policy

- Demonstrate commitment to The Institute's organisational values, including performing to an exceptionally high ethical standard and focus on integrity, collaboration, and teamwork in all efforts.
-

As a Team Manager:
- Ensure direct reports understand and comply with GI's Policies and procedures, standard operating practices, ethical practice (with respect to research) and the legislative environment
- Be responsible for managing performance of direct reports, including the completion of plans, and agreeing on work and personal objectives and reviewing such plans and objectives, in accordance with GI's Performance Management and Development Policy
- Act as a role model and ensure the team's commitment to GI's values, ensuring direct reports perform to a high ethical standard and focus on integrity, collaboration, and teamwork in all efforts.

Work, Health and Safety
- Comply with Work Health and Safety legislation and operate in accordance with established Occupational Health and Safety practice and procedures at the Institute
- Promote and contribute to a safe, secure environment for staff and visitors.

Skills, Knowledge and Experience
Essential
- Master / Doctoral qualifications in statistics or data science
- Strong experience within the data analytics field, with at least 5 years of relevant working experience in a health research environment
- Sound understanding of probability and statistics theory
- Sound understanding of linear models (i.e. ANOVA, linear regression), logistic regression, survival analysis
- Experience in the application of supervised and unsupervised machine learning methods
- In-depth working knowledge of R or Python
- Experience interpreting results and assisting with the preparation of publications
- Ability to learn and implement new statistical methods
- Excellent interpersonal and communication skills
- Ability to prioritise and meet deadlines
- High attention to detail and accuracy
- Strong focus on quality of work
- Understand the need and for and demonstrate strict adherence to confidentiality
- Excellent interpersonal skills and the ability to work well and flexibly i.e. autonomously, in small teams and with a wide range of varying stakeholders
- Ability to be flexible and adaptable in the face of changing organisational priorities and ambiguous environments
- Strong leadership skills and experience managing teams