



JOB DESCRIPTION

IDENTIFICATION:	
JOB TITLE:	Data Scientist/Analyst
REPORTING TO:	Senior Director, Health Systems Strengthening
DIRECTORATE:	Health Systems Strengthening (HSS)
DURATION OF CONTRACT:	Three Years Renewable
DUTY STATION:	Amref Health Africa Headquarters, Nairobi, Kenya

Amref Health Africa was founded in 1957 and has since grown to become the largest African-based international health development organisation; currently implementing more than 180 programs, reaching more than 40 million people across 35 African countries; and a staff complement of over 2,000. Headquartered in Nairobi, Kenya, Amref Health Africa has offices in ten countries in Africa – Burkina Faso, Ethiopia, Guinea (Conakry), Kenya, Malawi, Senegal, South Sudan, Tanzania, Uganda and Zambia. An additional eleven advocacy and fundraising offices are located in Europe and North America.

Amref Health Africa is driven by its vision of ***‘Lasting health change in Africa’*** and its mission ***‘To catalyze and drive community-led and people-centred health systems while addressing social determinants of health’***. We believe that the power to transform Africa's health lies within its communities, and therefore strive to ensure that health systems are not only functional but that communities are empowered to hold these systems accountable for the delivery of quality and affordable health care.

Health Systems Strengthening (HSS) is integral to health service delivery and responding to health development needs. As a champion of Universal Health Coverage (UHC), Amref Health Africa prides itself in working directly with communities and governments to build strong community health systems. Amref's goal is to drive the delivery of technical assistance to governments and civil society organizations across Africa, increasing knowledge platforms and thought leadership. Amref Health Africa has mobilized resources to create opportunities for countries and units across the organization to catalyze the provision of innovative technical assistance approaches. To deliver on its mandate the HSS directorate has four main pillars i.e. Health Financing, Reproductive Maternal Child and Adolescent Health [RMNCAH], Primary Health Care, and Social Determinants of Health (SDoH).

Amref Health Africa is seeking to support key stakeholders and lead efforts on mainstreaming decision making by producing responsive agile data that aid in decision making. Amref is seeking to scale up work on HSS by ensuring data is available accessible through providing: Enabling environment for the production and use of HSS statistics: Increasing the production of HSS statistics: Increasing data accessibility and use: Ensure that HSS statistics are accessible to all users (including governments, civil society, academia and private sector) and can be analyzed, communicated, and used to inform research, advocacy, policies and programmes, decision making and promote accountability

JOB PURPOSE

Amref Health Africa is seeking a highly skilled Data Scientist/Analyst to join the Health System Strengthening Directorate. The successful candidate will play a crucial role in leveraging data to enhance decision-making, drive programmatic impact, and contribute to the overall goal of improving health outcomes in Africa by making sense of existing data, developing a system of data collection and analysis and presenting the data to key stakeholders for utilization

PRIMARY RESPONSIBILITIES:

Program Management:

- Lead in the development of an HSS Data Management and information use blueprint and Implementation Plan with representation of all the four strategic pillars within the HSS directorate
- Continuously reviewing and improving data management processes, analytical methodologies, and reporting mechanisms to enhance the efficiency and effectiveness of program management with the Directorate
- Contribute to the development and implementation of performance monitoring frameworks to track and assess the effectiveness of health system strengthening programs within the Health Systems Strengthening Directorate
- Contribute to the Directorate's evidence-based work planning and budgeting efforts
- Lead in the review and adaptation of essential data-related policies, Minimum operating Standards (MoSs), and Standard Operating Procedures (SoPs)
- Work closely with the Health System Strengthening team and Amref country offices to identify opportunities for data-driven interventions to improve health systems.

The specific roles under program management include: -

a) Maintain the data for Health System Strengthening Directorate:

- Maintain the data dashboards of the HSS data
- Develop data collection systems, data analytics and other strategies that optimize statistical efficiency and quality ensuring the database is updated as per schedule.
- Acquire data from primary or secondary data sources and maintain the data, identify, analyze, and interpret trends or patterns in complex data sets.
- Work with management to prioritize business and information needs of the HSS directorate.
- Locate and define new data process improvement opportunities while providing technical support in data collection, compilation and quality control.
- Regularly review, analyze and evaluate business and user needs and experience to improve the design, development and implementation of the database.
- Collect and analyze feedback from users to assess the quality, relevance and usefulness of the portal and the data in particular.
- Work with Amref's IT team in capturing bugs and any technical issues in the issue tracker and follow up with the developers.

b) Provide database liaison support:

- Serve as the data focal point for HSS In order to consolidate and communicate information regarding data updates and other developments.

- Work closely with Amref's IT team to coordinate the database and data requirements.
- Communicate regularly with IT team to provide updates on database maintenance, support, and other relevant issues.

c) Develop custom data visualizations and dashboards:

- Produce customized data visualizations to support HSS data and impact stories.
- Create custom dashboards and interactive data features.
- In collaboration with Amref's M & E department Develop and manage the data dashboards for HSS to support Health Financing, Reproductive Maternal Child and Adolescent Health [RMNCAH], Primary Health Care (PHC), and Social Determinants of Health (SDoH)

d) Support data hub web development and content:

- Build custom sub web pages on the HSS data and work with the IT team in updating web content as required,

Evidence Generation and Translation:

- Conduct comprehensive analysis of health-related data to identify trends, patterns, and insights that can inform programmatic decisions and strategies within the HSS directorate and Amref in general.
- Utilize statistical modeling and forecasting techniques to predict future health system needs, resource allocation, and potential outcomes of program interventions.
- Contribute to the design and implementation of rigorous evaluation studies to assess the impact and effectiveness of health system strengthening initiatives. This involves developing evaluation frameworks, coordinating data collection and analysis, and reporting findings.
- Ensure the accuracy, completeness, and reliability of data by implementing data quality assurance processes, data cleaning techniques, and validation checks.
- Staying updated with the latest advancements in health system strengthening and data science, exploring innovative approaches, and contributing to research publications and conferences.
- Ensuring compliance with data governance policies and privacy regulations, such as HIPAA, GDPR, and applicable local laws, to protect sensitive health data.
- Develop and maintain data pipelines for efficient data extraction, transformation, and loading (ETL) processes.
- Create visually appealing and informative data visualizations to effectively communicate complex information to technical and non-technical stakeholders. This includes building interactive dashboards, charts, and graphs to support decision-making
- Guide HSS directorate staffs and Amref country offices on the utilization of emerging evidence generated from data extraction and analysis.

Business Development

- Support proposal development to secure funding and business for HSS directorate and Amref Health Africa at large

Stakeholder Engagement & Capacity Building

- Collaborating with cross-functional teams, including healthcare professionals, donors, policymakers, and program managers, to understand their data needs and provide insights that support evidence-based decision-making.
- Provide technical support and training to Amref's staff on data-related tools, methodologies, and best practices and promoting a data-driven culture.
- Work with Amref's COs and directorates in building a data utilization for decision making COP
- Undertake related duties as required.

REQUIRED QUALIFICATIONS

The successful candidate will have a strong technical background in data management, analysis, synthesis, and modelling. The incumbent will contribute to the implementation of the directorates research vision to maximise the value of data and information systems as strategic research assets ensuring relevance, accessibility and usability of health system data and analysis.

Education Qualification

- Master's in Data Science and a data science certification.
- Master's in Mathematics, Statistics, Computer Science, actuarial science, or a related field and a data science certification.
- PhD is an added advantage

Professional Qualification and Competencies

- Minimum five (5) years of experience in technical knowledge of managing and making sense of data to enhance decision-making, and drive programmatic impact
- Programming Skills – knowledge of statistical programming languages like R, [Python](#), and database query languages like [SQL](#), Hive, Pig is desirable. Familiarity with Scala, [Java](#), or [C++](#) is an added advantage.
- Statistics – Good applied statistical skills, including knowledge of statistical tests, distributions, regression, maximum likelihood estimators, etc. Proficiency in statistics is essential for data-driven companies.
- [Machine Learning](#) – good knowledge of machine learning methods like k-Nearest Neighbors, Naive Bayes, SVM, Decision Forests.
- Strong Math Skills (Multivariable Calculus and Linear Algebra) - understanding the fundamentals of Multivariable Calculus and Linear Algebra is important as they form the basis of a lot of predictive performance or algorithm optimization techniques.
- Data Wrangling – proficiency in handling imperfections in data is an important aspect of a data scientist job description.
- Experience with [Data Visualization Tools](#) like matplotlib, ggplot, d3.js., Tableau that help to visually encode data
- Strong analytical skills and problem-solving skills in extracting insights from complex datasets, identify patterns and make data-driven decisions
- Familiarity with the healthcare industry, especially in relation to health systems strengthening is highly desirable
- Excellent written and verbal communication skills with ability to present complex information to both technical and non-technical stakeholders.

- Good understanding of ethical considerations related to data privacy, security, and data confidentiality. This includes familiarity with relevant regulations such as General Data Protection Regulation (GDPR) is highly desirable
- Strong interpersonal and capacity-building skills, including training, mentoring, and coaching skills.
- Technically sound in DEIB-focused approaches
- Demonstrate ability to build networks and with various stakeholders
- Fluency in French would be an additional advantage.

Key Performance Indicators for this role include: -

- Up to date and accurate data dashboards.
- Maintained and updated country fact sheets
- Effective communication with IT directorate and related departments.
- Quality data visualizations are produced based on up-to-date design and technology.
- Custom pages are built using modular templates and modifications are made as needed.
- Custom dashboards are built and maintained to support specific data initiatives.

Compensation

- This role attracts competitive benefits commensurate with experience

This position is an immediate recruitment with a maximum of 2 Months' notice for the candidate

How to apply

Interested? Please visit our website <https://amref.org/vacancies/> to make your application. You will be directed to our online portal where you will need to create an account in order for you to be able to submit your application. Your application should include a cover letter detailing why you are the best fit for this position and your CV with relevant skills and experience. Closing date will be **Monday, 18th March 2024**. Only shortlisted candidates will be contacted.

Duly note that Amref Health Africa does not require applicants to pay any money at whatever stage of the recruitment and selection process and has not retained any agent in connection with recruitment. Although Amref may use different job boards from time to time to further spread its reach for applicants, all open vacancies are published on our website under the Vacancies page and on our official social media pages. Kindly also note that official emails from Amref Health Africa will arrive from an @amref.org address.

Amref Health Africa is committed to safeguarding and promoting the welfare of children, young people and vulnerable adults and expects all staff to share this commitment. Amref Health Africa is an equal opportunity employer and has a non-smoking environment policy.