Geographic Information Systems (GIS) Expert

Position Summary: The Geographic Information Systems (GIS) Expert will provide technical expertise for in-depth geospatial analyses of HIV epidemiologic and program data that can be directly applied to expedite the achievement of PEPFAR targets to attain and sustain control of the HIV epidemic. S/he will work with the Project Director and other technical leads to design and maintain geodatabases to conduct spatial analyses. S/he will provide support in this area to the donor, the Ministry of Health (MOH), and the ICAP project team.

Major Accountabilities:
- Supports geo-visualization of HIV/AIDS trends, facility-level clustering, and production of high-quality static cartographic maps to support project decision-making.
- Leads online and desktop spatial query analysis to enable system users to compare disease trends, hotspot analyses, or extract facility data at different spatial units including state, LGA or ward.
- Supports spatial data sharing across multiple formats and outputs such as GeoJSON, TopoJSON, TIFF, PNG, SVG, and JPEG.
- Supports multiple overlays using satellite imagery base map such as Google Maps, Open Street Map and other spatial datasets of interest.
- Designs and maintains geodatabases using field-acquired data, as well as data from third-party sources, including national government, universities, open-access datasets, and commercial datasets.
- Conducts spatial analyses to identify hotpots and trends of new infections identified through the program.
- Works with the Data Analytics and Visualization Specialist and the Health Information Systems (HIS) Specialist to integrate spatial analyses into project dashboards.
- Supports GPS-enabled tablet-based collection of geospatial and ancillary data during project implementation.
- Provides support to the project team on GIS data acquisition and data management; trains teams on the use of GIS, GPS-enabled tablets, and geospatial data; troubleshoots data collection and management challenges.
- Collaborates with the GIS department of the Tanzania government national bureau of statistics to reconcile discrepancies between master census files and GIS files.
- Performs other related duties, as directed.

Education: Advanced degree in Geography, Geographic Information Science or related field.

Experience, Skills, and Qualifications:
- 5 years of demonstrated experience providing training on GIS, GPS, geospatial data, and relational database management systems (RDBMS).
- Experience working with issues relating to HIV/AIDS in resource-limited environments in sub-Saharan Africa, experience in Tanzania preferred.
- Proficiency using ESRI ArcGIS Online and ArcGIS for Server.
- Proficiency using SAS, STATA or R statistical software preferred.
- Advanced proficiency using ESRI ArcGIS for Desktop.
- Demonstrated programming experience using Python and SQL.

- Proficiency in geospatial and statistical methods and analysis.
- Demonstrated knowledge regarding best practices for cartographic design, metadata documentation, and projected coordinate systems.
- Proficiency with Microsoft Office Suite (e.g., Excel, Word, Outlook, PowerPoint).
- Excellent skills in critical thinking and analysis.
- Excellent organizational and oral/written communication skills. Professional proficiency in English required.