

Appendix A

Key Population Atlas Advancement Plan

Goal

With this partnership between JHU and UNAIDS, our goal is to create a collaborative digital website that displays HIV statistics for key populations for more than 150 countries. The intent is to create an online resource for gathering and displaying global HIV data among key and marginalized populations including gay men and other men who have sex with men, female sex workers, transgender populations, people who use drugs, and incarcerated populations. The online tool will present an interactive global map that visually displays multiple HIV datasets among key populations for all available countries. In addition, the tool will have a comparison mechanism for making comparisons between different countries and between different sub-national units within a country. This tool aims to provide country dashboard pages for researchers, academics, government, and community-based organizations, members of the community and general public to download country-specific datasets.

Background and Purpose

The KP Atlas will represent a collaborative digital website that displays HIV status for key populations for more than 150 countries. Data will be visualized as a global map interface featuring HIV data among key populations for each available country, along with demographic third-party comparison data that can be overlaid with initial country data. Specific outcomes:

- Create a key online resource for gathering and displaying global HIV data among key and marginalized populations including gay men and other men who have sex with men, female sex workers, transgender populations, people who use drugs, and incarcerated populations
- Present an interactive global map that visually displays multiple HIV datasets among key populations for all available countries at the national and subnational level
- Displays secondary comparison datasets for each country to compare HIV status with other factoring statistics
- Provide country dashboard pages for researchers, academia, government, community-based organizations, and members of the community and general public to download datasets.

Target Audience for KP Atlas/Global HIV Platform

- U.S.-based government agencies (e.g. PEPFAR, USAID, State Department)
- Members of key population community leadership as well as affected members of the community
- HIV researchers and global health academics

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- Government officials
- Global health program implementers
- Media

Website Development Components

- Design of online interactive tool to achieve access to a range of different types of data for over 150 countries
- Site map and layout constructed for user-friendly interface, menu structure
- Mapping component giving users the ability to access statistics by country. Interactive tool also conveys the level of data available for each country
- API creation linking REDCap or alternative database to display tool (KP Atlas front-facing site)

Website Features

Mapping: The map will be global, highlighting nations that have one or more data fields, using ESRI as the dedicated geospatial platform according to the current partnership between UNAIDS and ESRI, as well as JHU's subscription partnership with ESRI.

Usability: The map will display as a global app on load for users to understand the expanse of data. The map will highlight countries and regions that have data. The map user interface will enable presentation of multiple views to see additional or secondary data sets, or comparison data for that country or region.

Print: Users can select a country or region to print information detailing maps, rate scales, and basic HIV data. Printed pages can display as PDF or PNG data.

Local data: All local data can be stored using an Amazon Simple Storage Service (S3) or similar, web-based databases. Map data can also be stored on S3 as long as there are conduits between REDCap and S3 to move data when updated by KP Atlas administrators

Data storage: REDCap (Research Electronic Data Capture) is the data center for this project and may be linked with an additional database server used by UNAIDS. REDCap is an advanced web-based application for securely storing and retrieving tabular data. The REDCap community has built a series of tools, including APIs, to pull data. See the GitHub at <http://redcap-tools.github.io/projects/>.

Data presentation: Along with map features, there will be a content area to pull key population HIV data and any locally-stored secondary data as csv or Excel files for researcher use. Data will be clearly organized by country and presented with comments and notes, as needed.

Content Types: There will be several types of content, as follows:

- **Homepage and/or Map pages:** The site will land on the map

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as the homepage, giving access to other pages

- **Country dashboards:** All countries with data will require a dashboard page to display all forms of data, from JHSPH data to third party data. Links to download data can also appear on this page
- **Data Methods:** Content page for information on data collection methods
- **FAQ page:** Content page for questions about data
- **Story maps:** Proposed content page to create and display crowdsourced, user-generated content through Story maps to encourage story-telling with data. Examples here:
<https://storymaps.arcgis.com/en/>
- **Contact page:** Content page to send messages to website administrators