Strengthening Spatial Data Infrastructure through the Response to Global HIV/AIDS

2008 ESRI Health GIS Conference: Understanding the Power of Place
September 29, 2008

Nathan J. Heard
ActioNet Support Contractor
Humanitarian Information Unit
US Department of State
A global view of HIV infection
The Tom Lantos and Henry J. Hyde United States Global Leadership Against HIV/AIDS, Tuberculosis, and Malaria Reauthorization Act of 2008

$39 billion for:
- PEPFAR bilateral HIV/AIDS programs
- U.S. contributions to the Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria

$5 billion to:
- The President’s Malaria Initiative to fight malaria

$4 billion for:
- Bilateral programs to fight tuberculosis
Organizational Structure
What is the state of SDI in countries where PEPFAR is most active?

- Botswana
- Côte d'Ivoire
- Ethiopia
- Guyana
- Haiti
- Kenya
- Mozambique
- Namibia
- Nigeria
- Rwanda
- South Africa
- Tanzania
- Uganda
- Vietnam
- Zambia
ART. PEPFAR 2007 APR USG partner-supplied data. Prepared Jan 22, 2008 by Peter Young <youngp@mz.cdc.gov>, CDC Mozambique.
Years represent dates when ART or PEPFAR support provided, whichever is later.
Red pins signify existing ART sites and green pins signify sites that were proposed for 2006.

National AIDS Control Program, Republic of Tanzania
http://www.nacptz.org/
Why HIV and SDI?

• Use case
• Key spatial data layers
  – health facility
  – community
  – schools
  – administrative boundaries
• Need for sustainable systems
LESOTHO: Population Density and TB/HIV Sites, June 2008

Legend
- TB/HIV sites
- Other facilities
- Region
- Park
- Roads
- Population per km²
  - High: 118033
  - Low: 0

Provider Codes
1. ASCP
2. AED
3. LDF
4. EGPFAF
5. Georgetown
6. ICAP
7. ILO
8. MEASURE FO
9. MSH/SPS
10. NICD
11. PC Vol
12. URC
13. JHPIEGO
14. PATH
15. Safe Blood
16. PSI
17. PACT/PB
18. IntraHealth

Data: SAHMS GIS Library PEPFAR Lesotho Landscan 2006

UNCLASSIFIED
Names and boundary representation are not necessarily authoritative.
The HIV Spatial Data Repository provides geographically-linked HIV-related data for mapping in a geographic information system (GIS). Data are provided in a form that allows GIS users to integrate their own GIS data to produce new analyses and mapping of HIV data. The HIV Spatial Data Repository is part of PEPFAR's effort to provide data for decision making and improve knowledge and understanding of the impact of HIV worldwide.

This website is made up of four main sections:

1. **Available Data**: This page contains a list of the data that are directly available from this website. Read more...

2. **Gallery**: On this interactive page, people can post maps they have created and comment on other HIV-related maps. Enter Gallery

3. **Resources**: This page contains links to other Internet resources related to mapping HIV data. Reading and Guidance; Other Data Sources; and GIS Tools.

4. **User Forum**: This is an open forum where people can discuss and share ideas on GIS analysis and mapping of HIV-related data.

To access the data on this site, new users should register and provide some contact information. (This information is secure and allows the HIV Spatial Data Repository to learn who is using this data). Existing users should login. The HIV related data from this website are provided via excel files and shapefiles. It also contains metadata on the provided shapefiles. GIS data are provided "as is" and boundary representations are not necessarily authoritative.
Bridging Institutions and Cultivating Users

HIV/AIDS Prevention and Control (Addis Ababa, Ethiopia)

**Data:** AAHAPCO  **Maps:** Ethiopia Mapping Authority  **Training:** Addis Ababa University  **GeoPDF Technology:** HIU
Botswana SDI and Health

Department of Surveys and Mapping

Ministry of Health

NATIONAL AIDS COORDINATING AGENCY (NAICA)
Risk and Challenge

• Stovepiping
• Duplication of effort
• Conflicting standards
• Unsustainability
The Three Ones

UNAIDS Principles for National HIV/AIDS Programs

• One agreed HIV/AIDS Action Framework
• One National AIDS Coordinating Authority
• One agreed country-level Monitoring and Evaluation System

Botswana National Spatial Data Infrastructure

• One SDI Initiative
• One institutional framework
• One technical framework, set of technical standards and fundamental data
Contact

Nathan J. Heard
ActioNet Support Contractor
Humanitarian Information Unit
U.S. Department of State

HeardNJ@state.gov