

Data Transmission Issues
Overview of Challenges/Barriers, Questions, and Initial OA Considerations
June 24, 2008

The following narrative summarizes the initial Office of AIDS (OA) considerations, challenges or barriers, and unanswered questions regarding web-based methods for transmission of HIV/AIDS information. Email and facsimile (FAX) transmission of HIV/AIDS case information are to be addressed at a future date.

Surveillance activities can be divided into two broad categories: case finding and case reporting. Data transmission technologies may present challenges to one or both of these activity areas. Within each topic area, barriers and challenges have been categorized according to the surveillance activity most directly impacted.

Key:

- ◆ The barrier or challenge affects the ability to detect cases of HIV.
- ◆ The barrier or challenge affects the ability to meet HIV reporting requirements.
- ◆ The barrier or challenge affects the ability to both detect cases of HIV and meet HIV reporting requirements.

1. Web-based secure system

Background

eHARS, a web-based version of the current stand-alone and flat file HIV/AIDS Reporting System (HARS) has been developed by the Centers for Disease Control and Prevention (CDC) as the system to be used by all funded sites. eHARS's main functionality is to accommodate document-based reporting using a relational database management system. Document-based reporting is a structural requirement for HIV/AIDS programs and CDC is currently working with each state to deploy eHARS. CDC plans to begin deployment of eHARS in California in 2009. eHARS is compliant with the National Electronic Disease Surveillance System (NEDSS) standards for database management, medical vocabularies, overall architectural design, and encryption.¹ Being a federal web application, eHARS is also ADA compliant as required by Section 508 of the Rehabilitation Act of 1973 to make information technology accessible to people with disabilities.

Consideration 1.1: Integrate eHARS with web-CMR

Supports:

- The Confidential Morbidity Report (CMR) is familiar to healthcare providers, laboratories, and local health departments (LHD).

¹ CDC Information Council (CIC). Meeting Minutes (August 29, 2002). VP, Gartner Group evaluation of eHARS compliance with NEDSS. Available at http://www.cdc.gov/CIC/minutes/CIC_minutes_8-29-02.pdf

- Web-CMR integrates electronic medical records technology into its system.
- Web-CMR is a web-based application
- OA could conceivably (if required hosting infrastructure are met) use the same secured and managed private network if Web-CMR will be using this method, and not dedicated physical wires, for application access and delivery.

Challenges:

- DCDC's servers can't readily be configured for eHARS implementation. eHARS and Web-CMR use different technological platforms for application access and delivery.
 - Web-CMR uses Microsoft's .NET technologies
 - eHARS uses JAVA and Non-Microsoft Middleware
- OA needs to develop and implement its own private network with its own security protocols if unable to share the application delivery and access method of Web-CMR.
- Community Acceptance
 - OA would need to build community support for this method of data transmission.

Consideration 1.2: OA builds and supports its own private network for deployment of eHARS

Supports

- This would be sufficient for deployment of eHARS at the basic level.
 - OA already has the server, workstation capacity, and other technical resources.
 - The Registry has a server dedicated for eHARS and our workstations are up to eHARS standards with slight modifications.
 - LHD would log into OA's private network to gain access to eHARS
 - Ex: LHD would log in and input data 'live' into eHARS. There would be no monthly transfer of data on disk to OA.
 - To get local statistics, LHD would have to ask OA or use eHARS built-in queries/reports.
 - LHD can still see and access its own data. OA has met with the CDC eHARS team and confirmed that CDC is willing to add this functionality.

Challenges/barriers

- Expense
 - OA is currently researching various options.
- Technical capacity
 - Web-based systems require specific technical staff (i.e., server administrator, network administrator).
 - OA is just this month receiving any 'back end' information regarding eHARS. All information concerning eHARS has concerned 'front end' user needs (what the screens will look like, variable conversions, using eHARS with SAS (recent)).
- Community Acceptance
 - OA would need to build community support for this method of data transmission.

Reporting level-specific challenges/barriers:

1. HCP to LHD

- a. ◆ Unlike Web-CMR, direct access to eHARS is limited to the LHD. HCP and laboratories may have ability to send data to an intermediary database at some LHD with intranet systems.
 - i. Direct access into OA's private network may technically be possible. However, current law requires HCP to report to the local health officer. Also, broadening access could increase risk.
 - b. ◆ Electronic reporting potentially cost prohibitive for smaller healthcare providers.
2. Laboratories to LHD
- a. ◆ Not all LHD have capacity to process electronic laboratory-based reports.
3. LHD to OA
- a. ◆ Some providers may try to fulfill reporting requirements via Web-CMR. How will electronic HIV/AIDS data be transferred to the HIV/AIDS program?
 - b. ◆ CDC requires all policies in writing before data can be shared and these policies are HIV-specific. If HIV some data are housed in a system (like Web-CMR) for other communicable diseases, is this acceptable to the broader group of stakeholders?

Pending Questions

Current regulations (§2643.5 HIV Reporting by Health Care Providers and §2643.10 – HIV Reporting by Laboratories) require that all reports containing personal information be sent to the local Health Officer or his or her designee by traceable mail or person-to-person transfer.

Question: If it is feasible for laboratories or healthcare providers to report using a secure web-based system in some jurisdictions, do regulations need to be changed? In other words, can 'person-to-person transfer' be interpreted to include transfer via a secure web-based system?

Current regulations (§2643.15 HIV Reporting by Local Health Officers) state that LHD must send HIV/AIDS case reports by traceable mail. This language is not consistent with reporting via eHARS, a web-based data management system.

Question: Is there a simple solution to the inconsistency? Can we simply add a definition for Electronic Data Transfer to Subarticle 1 (Definitions) and change §2643.15 (b)(1) as follows? "HIV/AIDS Case Reports shall be sent by courier service, U.S. Postal Service Express or Registered mail or other traceable mail *or by Electronic Data Transfer* to the California Department of Public Health, Office of AIDS, HIV/AIDS Case Registry."

Question: Can regulatory language be put in place for a web-based system before the system (eHARS) is fully established?