

Utah Environmental Public Health Tracking Program

Spring 2006

Issue 8

Utah EPHT Implementation Plan

After three years of planning and capacity building, the Utah EPHT Network is finally ready to move into the Implementation Phase of the program. The Utah EPHT network has developed a Utah Implementation Plan in that the Utah EPHT program will follow for the next three years of the EPHT grant cycle.

The implementation plan details how the EPHT program and consortium will work together to design, develop, implement, test, and accept the network.

The EPHTN will be developed in three phases:

Phase I: Data Warehouse Development - The Data Warehouse will include the design, development, implement, and validating of data. Phase I will also include building data security.

Phase II: Enhanced Data Staging and Preprocessing - Data staging and preprocessing will include the development of automated and semi-automated data systems.

Phase III: Enhanced Data Analysis – Enhanced Data Analysis will build essential tools and technologies for data analysis. Some of the tools will include rate and risk analysis, spatial epidemiology query, reporting, and environmental exposure modeling.

The Utah EPHT program will:

- Implement a data warehouse of environmentally related health outcomes linked with exposure assessment and health hazards data in

such a way that those data are accessible to UDOH, CDC, and EPHTN partners.

- Implement ways of linking the data. Initially linkage will be by location and time, but may eventually include other relationships such as a biological relationship.
- Implement methods of data communication to the warehouse from data sources, pre-processed to a format and quality acceptable to the warehouse.
- Implement methods of data communication from the warehouse to users through web-enabled data messaging gateways using national query and messaging standards.
- Provide tools for data analysis of linked data such as exposure modeling tools, risk assessment tools, or disease and risk mapping tools.

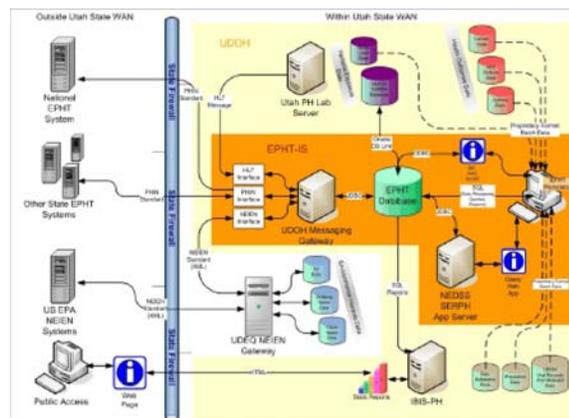
The Utah EPHT Implementation Plan can be found on the EPHT web board, or you can contact Brittney Carver at blcarver@utah.gov for a copy of the Utah EPHT Implementation Plan.

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Special points of interest:

- The implementation plan details how the EPHT program and consortium will work together.
- EPHT can be a valuable tool for identifying areas of health disparities.



Conceptual schematic of the Utah EPHT Network information system.

The role of EPHT in addressing environmental disparities in health

“EPHT can be a valuable tool for identifying areas of health disparities as well as providing community-specific information to support environmental efforts.”

Scientists from environmental and health-related fields have frequently demonstrated the fact that the environment may have greater impact on traditionally underserved populations. The Utah EPHT program has an opportunity to participate with an effective response to this and other environmental health inequities through policymaking, surveillance, and public health actions. The National EPHT network and a network of committed partners can be valuable tools for supporting efforts toward identifying and resolving issues of environmental health disparities among underserved populations. This approach is consistent with the goals of the CDC, Pew Commission Report, Healthy People 2010 and the National EPHT Program.

The focus of environmental justice is the widely documented phenomenon that more hazardous facilities and other environmental hazards are found in neighborhoods of racial and ethnic minorities and low-income populations. The assumption is that low-income neighborhoods are more likely to live closer to environmental hazards which people in the neighborhoods are more likely to have increased exposures to hazardous substances as well as related increased health risks. Evidence of health disparities between different minority/majority, socio-economic status, or geographic populations has been well documented, including disparities in health conditions whose cause may be environmentally related, such as asthma, cancer, and birth defects. In addition to considerations of access to health care and genetic differences, observed environmental health disparities may well be related to disparities in exposure to environmental pollutants and contaminants. Indeed, disparities in communities exposed to hazardous substances are well known. However, only in certain select circumstances can the connection be made between health outcomes and environmental hazards or exposures.

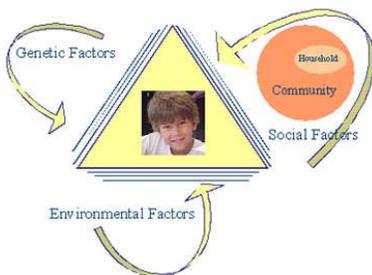
EPHT offers great potential to address these issues and play a role in their resolution. In

the EPHT strategic plan, CDC identifies that EPHT will, as part of its mission, monitor and distribute information on occurrence and trends among environmental hazards, exposures, and health effects; and develop, implement, and evaluate regulatory and public health actions to prevent or control exposure to environmentally related hazards. These can lead directly to the identification and resolution of questions of health disparities and environmental justice.

By linking data on environmental hazards, exposures, and health outcomes in a particular geographic area and time, EPHT can be a valuable tool for identifying areas of health disparities as well as providing community-specific information to support environmental efforts. Again in the EPHT strategic plan, CDC offers that one of the uses of tracking data is to identify populations and geographic areas most affected. The EPHT will ensure local underserved communities are accurately identified, and the data in the EPHT network will be useful for addressing questions of health disparities (HD) and environmental justice (EJ). EPHT must address these concerns and successfully inspire collaboration with community partners. In order to support progress on these important issues, EPHT must focus on the nature of the data collected and make that data available.

However, we must remember that tracking is surveillance and that our prior perceptions of who may be at risk do not always turn out to be the case. Sometimes the perceived HD/EJ group is not the at-risk group, such as the case in which young affluent families fixing up older homes create a greater lead poisoning risk to their children than occurs in poorer populations. Each state or region will have its own areas of concern for health disparities: lower income and politically disenfranchised populations, or rural vs. urban, or geographical hot spots blind to race. Therefore, in wanting to be sure not to exclude EJ populations, we should also be sure that our focus is broad enough to be

Continued on page 3



Factors affecting well-being in children.
www.nicholas.duke.edu/cgm/research.html

Continued from page 2— The role of EPHT in addressing environmental disparities in health

representative of many populations as we proceed with surveillance.

Ultimately, achieving the potential of EPHT to look at health disparities will depend on the involvement, participation, and support of EH and EJ advocates and local communities in the design and implementation of the EPHT Network. The success and utility of EPHT, not only for communities but also for a wider range of stakeholders, hinges on communities and advocates beginning to bear their knowledge, expertise, and experiences on the questions of how EPHT can be useful in these areas. We should ensure that grassroots and community representatives are primary stakeholders in EPHT efforts. This process of early and meaningful involvement is consistent with EJ principles, public health principles, EPA policies, and the Pew Environmental Health Commission's report.

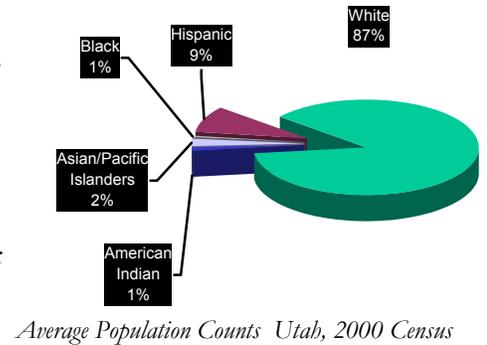
In order to advance these issues within EPHT, grantees (and other jurisdictions) must receive support and leadership from CDC EPHT and must work together. Advancing a HD/EJ focus solely at the national level without state/local involvement and engagement will be ineffective, and vice versa. The recommendations below are from the western states tracking workgroup. They are applicable not only to western states but also to EPHT programs nationally. The national EPHT effort will move forward in 2006 by considering the following recommendations:

1. Addressing environmental health disparities and environmental justice issues should be one of the explicit goals of EPHT programs at the local, state, and national levels. EPHT programs should develop and implement a strategy (framework, mission, policies, outcomes, and activities) toward this goal.
2. At the national level (EPHT branch or workgroup), we should develop a

comprehensive collection of recommended processes and mechanisms related to HD/EJ that EPHT programs could implement based on the relevancy to their physical, political, and demographic environments.

3. An organization with primarily health disparities and/or environmental constituents should be funded as a National EPHT Partner similar to other constituency groups (e.g., NACCHO for local health officials, CSTE for state epidemiologists, PSR for physicians, etc.) to facilitate that goal. The selected group should be national and should be representative of the broad range of HD/EJ issues.
4. All EPHT programs should develop and implement processes and mechanisms for meaningful community and stakeholder involvement. HD/EJ stakeholder involvement should be an explicit, mandatory component of state, local, academic, and EPHT branch programs. Partnering with HD/EJ representatives to explore, characterize, and communicate the scope of EJ issues that EPHT can affect is the most appropriate approach.
5. Databases identified for inclusion in tracking should be examined for how well they include information on a broad range of geographical, ethnic and different SES communities, including those normally underserved populations.
6. EPHT workgroups should identify how geographical resolution of data in the EPHT network can be set at a level (ZIP, census tract, block group) that will facilitate identification of HD/EJ issues.
7. EPHT programs should increase communication, collaboration, and coordination among their partner public health and environmental agencies on these issues.

*Thank you for supporting the EPHT program.
Sam LeFevre, Program Manager*



“Achieving the potential of EPHT to look at health disparities will depend on the involvement, participation, and support of EH and EJ advocates and local communities.”

Update - System Development

The Utah EPHT program is formalizing methods for moving data from Utah Department of Environmental Quality (DEQ) to EPHT. Utah EPHT and DEQ have deployed a copy of DEQ's National Environmental Information Exchange Network (NEIEN) client node to a personal computer within EPHT. EPHT staff are testing the functionality of this node.

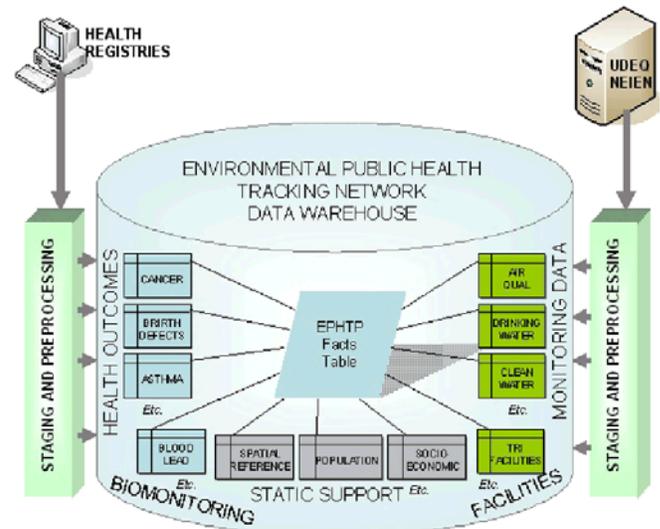
The NEIEN network is a nationwide network of nodes defined by the EPA NEIEN initiative. The benefits of the network are simplification, automation, security, and convenience. The network has chosen to exchange data in XML because by using XML data tags, far more information about the data can be transferred.

Each node is one of two types: a client or a client/server. The client node which was installed for EPHT is only capable of initiating a data exchange. A client/server node is capable of initiating data exchanges and responding to requests. There are 10 requests defined the most significant of which is SOLICIT. SOLICIT provides a means of requesting small amounts of data in a single exchange or large amounts of data cut up into packets for exchange in an automated series. One request parameter identifies where the data is to be returned to; this could be an EPHT server or another node in another state. Another SOLICIT parameter identifies a query stored in the node backend database as a SQL statement. Only predefined query statements can be run, so the provider's database is protected from queries that might accidentally access data that has not been quality assured. The node can also be setup to perform automated exchanges, for example, whenever a new record is entered into the provider's database.

Currently, the client node within EPHT can only receive data, but eventually as the DEQ server node is generalized to accommodate the EPHT network, data will be moved using standardized authentication procedures from EPHT to the rest of the EPHT network.

Network users will be assigned security credentials. By associating credentials with permissions in the AUTHENTICATION request, the node can determine queries available to one user versus queries available to another user. Some queries will be available to any network user. The EPA is in the process of creating a nationwide network directory that will define what services are available at what nodes. The EPA is also actively looking for ways to enhance the value of the network.

For more information on Utah's EPHT system development, contact Lew Jeppson at ljeppson@utah.gov.



Conceptual schematic of the EPHT network data warehouse.

Update - Program Marketing

The EPHT staff have developed a communication plan to guide the Utah EPHT program in developing clear, coordinated, and effective messages to stakeholders. EPHT staff are implementing the Utah EPHT communication plan.

EPHT staff are scheduling meetings with stakeholders to provide updates and information on the progress of the Utah EPHT program.

For a copy of the Utah EPHT communication plan or for more information, contact Kori Gunn at kgunn@utah.gov.

Update - Rapid Inquiry Facility

The Utah EPHT program collaborated with CDC and the Imperial College, London (ICL) in developing the Utah Rapid Inquiry Facility (RIF). The RIF will be used as a tool to map health effects and environmental hazard data. The beta test version was delivered to the Utah EPHT program in November 2005 and is currently being evaluated and tested. The Utah EPHT program is currently working with the Florida EPHT program as they incorporate the RIF into the Florida EPHT program.

The Utah EPHT program will continue to collaborate with the CDC and the ICL in the development of the RIF as a GIS-based tool. The Utah EPHT program plans to

include the following features in order to improve the RIF: develop methods and tools to easily and rapidly transform data for implementation into the RIF and to document those developments; implement methodology to apply the RIF on the EPHT network architecture; web-enable the RIF; and develop recommendations, protocols, and tools for generating and implementing covariates for confounding risk factors within the RIF.

The Utah EPHT program will continue to participate with workgroups to identify tool gaps and collaborate with CDC to develop tools to fill the gaps.

The RIF will be used as a tool to map health effects and environmental hazard data.

Questions and Answers

What are the benefits of the EPHTP?

- *The EPHT Network will bring together existing information from a number of sources.*
- *The EPHT Network will provide more and better information to guide activities.*
- *The EPHT Network will be a consistent nationwide resource.*

What will the National EPHT network look like?

- *The Network will be a Web-based set of data and tools.*
- *The Network will provide health, environmental, and linked health environmental data.*
- *Information will be secure and protected.*

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Future Activities & Important Dates

- **July 31, 2006**
CDC Announces Grant Awards
- **July 31, 2006**
10-Month Extension Ends
- **August 9-11, 2006**
National EPHT Conference
Tracks 2006: Implementing the Tracking Network
www.cdc.gov/nceh/tracking/tracks06/home.htm
- **August 16, 2006**
Planning Consortium Meeting
Utah Department of Health
10:00 a.m. –12:00 p.m.
- **November 15, 2006**
Planning Consortium Meeting
Utah Department of Health
10:00 a.m. –12:00 p.m.



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WE'RE ON THE WEB WWW.HEALTH.UTAH.GOV/EPHTP

Utah Environmental Health Tracking Program

Mission: To develop a state-wide, standards-based, web-enabled tracking network information system in Utah to enable information and knowledge dissemination and improve public health in the realm of chronic diseases related to environmental factors.



Contact Kori if you have an article or news you would like in the upcoming Utah EPHT newsletter

