Environmental Public Health Tracking

The National Environmental Public Health Tracking Network (NEPHTN) is run by the Centers for Disease Control and Prevention (CDC) and is a national network of grantee states, local health departments and academic partners. The mission of tracking is to provide information that can be used to plan, apply, and evaluate actions to prevent and control environmentally related diseases. This report provides background and describes how the Utah EPHTN (UEPHTN) has teamed up with the Office of Public Health Assessment (OPHA) to utilize the Indicator-Based Information System for Public Health (IBIS-PH) website as a data portal for its state network.

History and Background

In 2000, a Pew Environmental Health Commission report detailed a lack of basic information needed to document links between environmental hazards and chronic disease. To close this gap, the report's authors recommended integrating tracking systems for environmental hazards, bodily exposures, and diseases; linking data to allow swift analysis; and using the results to prevent disease and save lives. In response, Congress provided the CDC with funds to develop the NEPHTN.

Utah's Tracking Program

The Utah Department of Health (UDOH) has participated in the NEPHTN as a grantee

- **The NEPHTN provides health and environmental information to inform professionals, policy makers and the public.**
- **The UEPHTN contributes environmental health data to the national portal run by CDC.**
- **The UEPHTN has useful information such as radon, air quality and asthma data.**

state since 2002. The UEPHTN website provides background and basic information about the Utah Tracking Network. It includes resources and links to facts sheets, educational materials such as EPHT 101, newsletters, free tools, publications that use tracking data, the national portal and contact information. Documents needed to apply for access to the Secure Data Modules on IBIS-PH are available on the site as well.

IBIS-PH and UEPHTN Partnership

In 2007, the UEPHTN partnered with OPHA to populate IBIS-PH with additional health and environmental data and to enhance IBIS-PH functionalities and options for accessing and understanding the data.

UEPHTN IBIS-PH Features include:

1. <u>UEPHTN Data Portals link to IBIS-PH</u>: The 'Public Data' and 'Secure Data' tabs on the UEPHTN website direct the the user to IBIS-PH for environmental and health data specific to Utah.

2. <u>Secure Data on IBIS-PH</u>: In addition to publicly available data, the 'Secured data' drop-down box on the IBIS-PH 'Dataset Queries' tab allows role-based access to sensitive data that must be kept confidential. These data are not available to the public because they are aggregated at a fine enough granularity to require additional protections. Data are used by public health professionals to monitor the health status of Utahns and to develop appropriate health programs and interventions. Researchers use secure data to conduct scientific studies relevant to public health. The Secure IBIS-PH portal uses a strict protocol for granting and monitoring access to these data. All users are required to fill out a detailed application in order to request access to secure data. The application is then sent to a scientific review board to be reviewed. If the application is approved, applicants are then granted role-based access which allows them only to see data query modules that they have been approved to have access to.

3. <u>"EPHT Network" Navigation Tab</u>: This tab is located in the upper right corner of the IBIS-PH Homepage. It provides a drop-down menu to help users easily navigate through EPHTN-specific information and data with links to:
- "UEPHT Website" – the UEPHTN landing page.
- "Environmental Public Health Tracking Indicators"– an alphabetical list with links to the IBIS-PH Indicator Reports that are specific to the UEPHTN.
- "Metadata"– a search engine for exploring what data variables are available in the IBIS-PH Secured Data Modules. Metadata is "data about data" that provides a way for users to determine if the information they need is included in the Secure Data Modules before going through the application process.
- "Glossary"– UEPHTN specific terms and references.
- "National EPHT"– the National Tracking Network website allows users to connect with environmental health data from across the country. The CDC collects this data from partner states and allows users to compare

national data in many different ways. Users can also access other state portals. The national site contains some environmental health information not yet available on many state sites, such as climate change and community design.

ArcGIS® Maps in IBIS-PH

In order to better visualize environmental and health data, the UEPHTN and OPHA staffs have worked collaboratively with the Utah Department of Technology Services Automated Geographic Reference Center (AGRC) to add Geographic Information System (GIS) mapping technology in IBIS-PH. AGRC encourages and facilitates the effective use of geospatial information and technology for Utah by providing internet-based mapping services for local and state agencies. IBIS-PH utilizes an ESRI ArcGIS® Server for embedding the display of maps and geographic data. This allows IBIS-PH users to query data sets by geographic area with maps served up from ArcGIS® Server using ESRI's JavaScript API (Figure 1). The query results can also be displayed as choropleth maps. (Figure 2).

Summary

The UEPHTN strives to maintain an innovative, user friendly portal that can be used as a tool for anyone interested in environmental health. The UEPHTN along with the OPHA continues to explore new ways to provide data and information to improve the dissemination and availability of the data. By providing and tracking such a wide variety of environmental and health data the NEPHTN is a resource for research, policy, needs assessment and program evaluation and development. The Tracking Network helps organizations and individuals be informed about where they live, work and play.
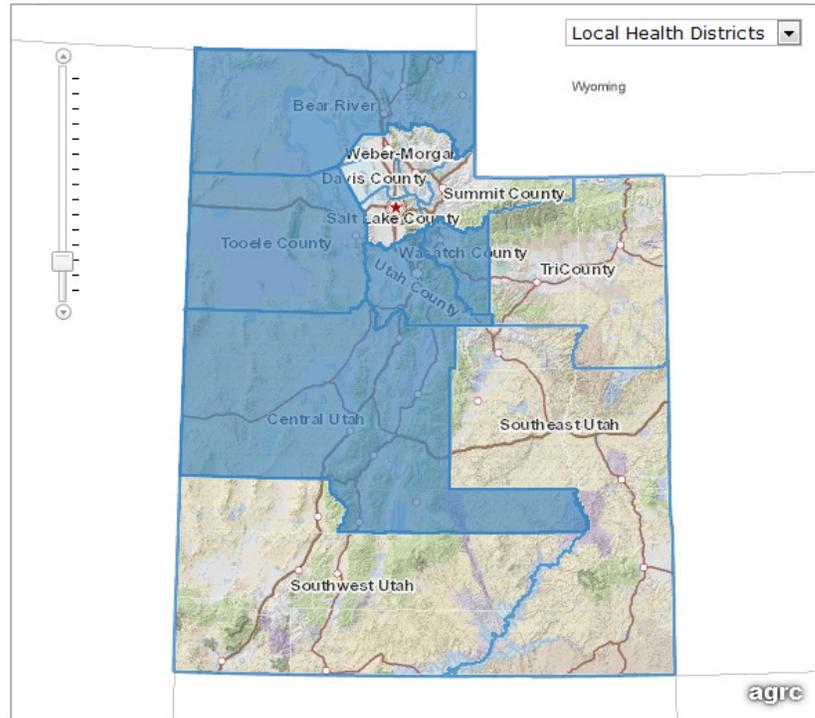
IBIS-PH Spatial Query Map

Figure 1. ARGC Map in the Inpatient Hospital Discharge Query Module
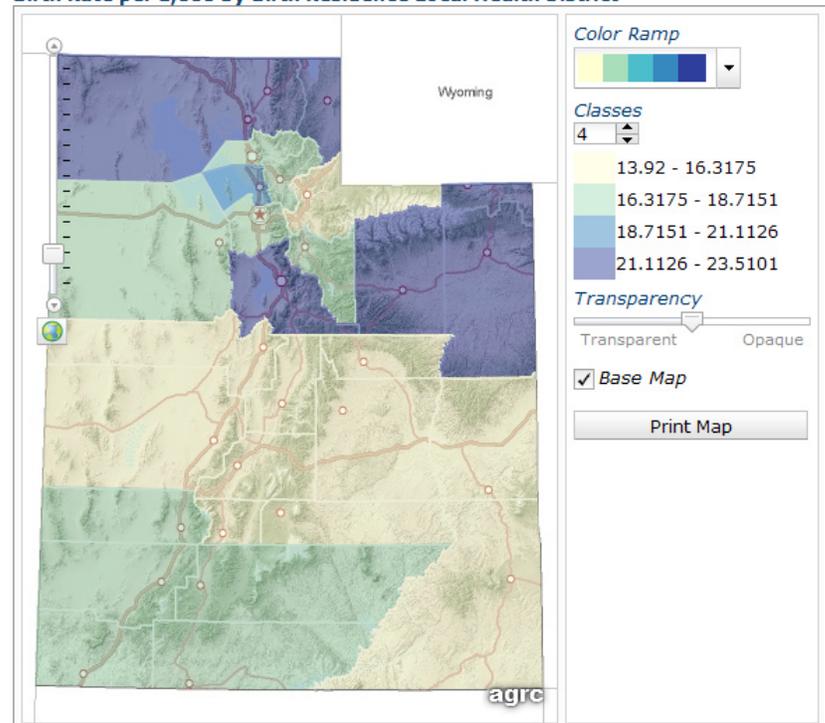

Source: IBIS-PH Query Builder page for the Utah Inpatient Hospital Discharge Dataset, Local Health Districts, 2009.

IBIS-PH Query Results Map

Figure 2. AGRC Map in the Birth Query Module

Source: IBIS-PH Query Results for the Birth Query Module, Local Health Districts, 2009.

Breaking News, April 2012

Food Deserts

Food deserts are generally described as places where residents may not be able to get to a supermarket easily because they do not own a car, have access to public transportation, or live along walkable roads. Many studies have shown that better access to a supermarket is associated with reduced risk of obesity and better access to convenience stores is associated with an increased risk of obesity.[1]

One way to tackle the food desert issue is to improve the selection at the smaller markets that residents can reach. We know that residents in rural and inner city communities might purchase food at convenience stores, discount stores, pharmacies, flea markets, and even front-yard or mobile food stands. Making healthy foods available at small stores often requires cooperation between the shop owners and the entire community. Store owners may try to offer produce but if they do not have the facilities to keep food fresh, it may not sell. When this is the case, calorie-dense items such as chips and candies, which do not require refrigeration, are likely to dominate the shelves.

Here is an example of a healthy corner store food shopping list:
Fresh Fruits and Vegetables: (Canned fruits and vegetables can be nutritious, but look for low-salt and low-sugar): Apples, pears, peaches, bananas, grapefruit, pineapple, grapes, cantaloupe and other melons, kiwifruit, oranges and other citrus, berries, mangoes, kale, turnips, spinach, eggplant, broccoli, sweet potatoes, carrots, peppers, squash, green beans and peas, asparagus, cabbage, tomatoes, corn, beets.
Milk/Dairy: Low-fat/fat-free yogurt, cheese, milk.
Poultry, Fish, Meat: Chicken, turkey, fish, lean ground meat, lean, low-fat, unprocessed cuts of meat.
Dry Beans and Peas: Pinto beans, black-eyed peas, chickpeas, black beans, navy beans, split peas, lentils, great northern beans, kidney beans.
Grains: Whole-grain and pita breads, crackers, pasta, oatmeal, noodles, spaghetti, grits, brown and white rice, ready-to-eat cereals (low-/no-added-sugar).

1. Larson, NI, Story MT, and Nelson MC. (2009) Neighborhood Environments: Disparities and Access to Healthy Foods in the US. American Journal of Preventive Medicine. 36(1):74-81 e10.

Community Health Indicators Spotlight, April 2012

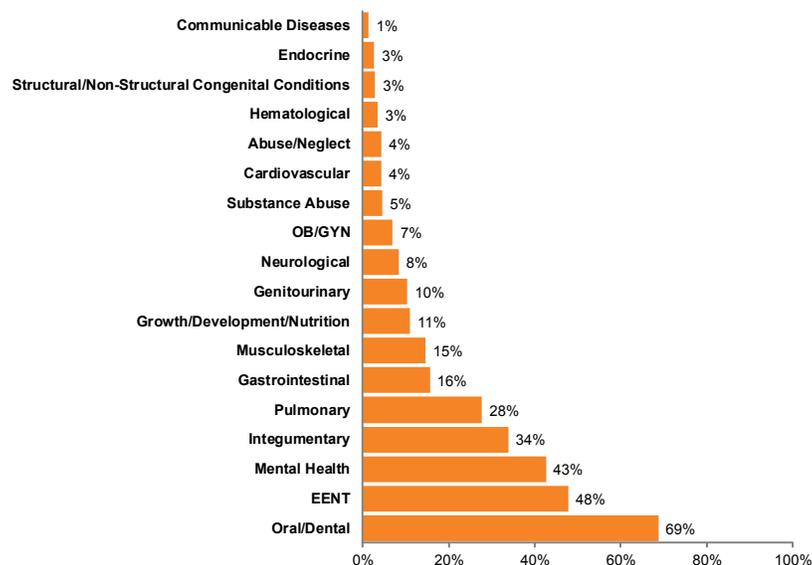### Health Conditions of Children in Utah Foster Care for 2011

The Utah Department of Health, Fostering Healthy Children Program, is responsible to provide health care oversight for children that enter Utah's foster care system. In collaboration with the Division of Child and Family Services, program staff developed a health care section in the SAFE database to track and monitor all health conditions for these vulnerable children.

It is known that children in foster care have high rates of acute and chronic medical, mental health and developmental problems[1].

In 2011, a total of 4,601 children entered foster care in Utah. Of these children, 4,289 had one or more medical, dental or mental health condition identified by their medical provider. The most common problems by category were identified to be oral/dental conditions (69%); eye, ear, nose and throat conditions (48%); mental health issues (43%); skin problems (34%) and pulmonary conditions (28%). Each of these categories contains multiple conditions. For example, pulmonary conditions include diagnoses such as asthma, pneumonia, bronchitis and bronchiolitis.

Percentage of Children in Utah Foster Care with Health Conditions by Category, 2011

Category	Percentage
Communicable Diseases	1%
Endocrine	3%
Structural/Non-Structural Congenital Conditions	3%
Hematological	3%
Abuse/Neglect	4%
Cardiovascular	4%
Substance Abuse	5%
OB/GYN	7%
Neurological	8%
Genitourinary	10%
Growth/Development/Nutrition	11%
Musculoskeletal	15%
Gastrointestinal	16%
Pulmonary	28%
Integumentary	34%
Mental Health	43%
EENT	48%
Oral/Dental	69%

Due to the historical evidence that foster children have more chronic health care conditions than children living with natural parents, Fostering Healthy Children staff assists in making sure that those children entering care with a primary provider remain with that provider. For those children without a primary care provider, Fostering Healthy Children staff assists in identifying a medical home to improve their health status.

1. http://www.healthychild.ucla.edu/Publications/ChildrenFosterCare/Documents/MCH%20Brief%20final%20for%20distribution.pdf.

Monthly Health Indicators Report
(Data Through February 2012)

Monthly Report of Notifiable Diseases, February 2012	Current Month # Cases	Current Month # Expected Cases (5-yr average)	# Cases YTD	# Expected YTD (5-yr average)	YTD Standard Morbidity Ratio (obs/exp)
Campylobacteriosis (Campylobacter)	8	18	18	37	0.5
Shiga toxin-producing Escherichia coli (E. coli)	0	2	2	5	0.4
Hepatitis A (infectious hepatitis)	0	1	0	2	0.0
Hepatitis B, acute infections (serum hepatitis)	0	2	0	3	0.0
Influenza*	Weekly updates at http://health.utah.gov/epi/diseases/flu				
Meningococcal Disease	0	2	0	2	0.0
Pertussis (Whooping Cough)	23	35	51	68	0.7
Salmonellosis (Salmonella)	9	15	22	37	0.6
Shigellosis (Shigella)	0	1	1	4	0.2
Varicella (Chickenpox)	26	75	54	162	0.3

Quarterly Report of Notifiable Diseases, 4th Qtr 2011	Current Quarter # Cases	Current Quarter # Expected Cases (5-yr average)	# Cases YTD	# Expected YTD (5-yr average)	YTD Standard Morbidity Ratio (obs/exp)
HIV/AIDS†	20	31	86	116	0.7
Chlamydia	1,848	1,520	7,079	5,934	1.2
Gonorrhea	81	138	277	567	0.5
Syphilis	4	6	14	33	0.4
Tuberculosis	6	9	34	31	1.1

Medicaid Expenditures (in Millions) for the Month of February 2012	Current Month	Expected/ Budgeted‡ for Month	Fiscal YTD	Budgeted‡ Fiscal YTD	Variance - over (under) budget
Capitated Mental Health	$ 9.1	$ 4.6	$ 95.6	$ 95.7	$ (0.1)
Inpatient Hospital	$ 21.3	$ 19.8	$ 210.4	$ 211.5	$ (1.0)
Outpatient Hospital	$ 13.1	$ 14.6	$ 59.0	$ 63.9	$ (4.8)
Long Term Care	$ 12.6	$ 8.7	$ 102.4	$ 102.3	$ 0.1
Pharmacy§	$ 14.2	$ 8.6	$ 115.3	$ 101.6	$ 13.7
Physician/Osteo Services	$ 7.4	$ 9.3	$ 58.3	$ 59.9	$ (1.6)
TOTAL HCF MEDICAID	$137.4	$ 177.4	$1,172.3	$1,220.1	$ (47.8)

Program Enrollment for the Month of February 2012	Current Month	Previous Month	% Change¶ From Previous Month	1 Year Ago	% Change¶ From 1 Year Ago
Medicaid	252,822	251,082	+0.7%	236,052	+7.1%
PCN (Primary Care Network)	13,269	12,658	+4.8%	21,382	-37.9%
CHIP (Children's Health Ins. Plan)	37,061	37,131	-0.2%	36,831	+0.6%

Health Care System Measures	Annual Visits			Annual Charges	
	Number of Events	Rate per 100 Population	% Change¶ From Previous Year	Total Charges in Millions	% Change¶ From Previous Year
Overall Hospitalizations (2010)	274,576	9.0%	-2.6%	$ 5,416.2	+5.9%
Non-maternity Hospitalizations (2010)	167,340	5.3%	-0.9%	$ 4,552.5	+5.9%
Emergency Department Encounters (2009)	684,176	23.3%	-1.1%	$ 1,081.4	+22.9%
Outpatient Surgery (2009)	311,442	10.6%	+1.9%	$ 1,465.7	+14.7%

Annual Community Health Measures	Current Data Year	Number Affected	Percent/ Rate	% Change¶ From Previous Year	State Rank# (1 is best)
Obesity (Adults 18+)	2010	454,700	23.1%	-4.0%	11 (2010)
Cigarette Smoking (Adults 18+)	2010	180,100	9.1%	-6.9%	1 (2010)
Influenza Immunization (Adults 65+)	2010	175,900	68.2%	-0.8%	23 (2010)
Health Insurance Coverage (Uninsured)	2010	301,900	10.6%	-5.6%	n/a
Motor Vehicle Traffic Crash Injury Deaths	2010	231	8.1 / 100,000	+0.1%	19 (2009)
Poisoning Deaths	2010	342	12.0 / 100,000	-38.1%	47 (2009)
Suicide Deaths	2010	479	16.8 / 100,000	+5.8%	n/a
Diabetes Prevalence (Adults 18+)	2010	128,000	6.5%	+6.2%	15 (2010)
Poor Mental Health (Adults 18+)	2010	296,100	15.0%	-0.2%	17 (2010)
Coronary Heart Disease Deaths	2010	1,488	52.2 / 100,000	-0.4%	2 (2008)
All Cancer Deaths	2010	2,791	98.0 / 100,000	+7.9%	1 (2008)
Stroke Deaths	2010	736	25.8 / 100,000	-1.4%	13 (2008)
Births to Adolescents (Ages 15-17)	2010	876	14.3 / 1,000	-13.2%	17 (2009)
Early Prenatal Care	2010	38,124	73.1%	+2.1%	n/a
Infant Mortality	2010	251	4.8 / 1,000	-9.0%	3 (2008)
Childhood Immunization (4:3:1:3:3:1)	2010	38,900	70.6%	-7.8%	12 (2010)

* Influenza activity remains minimal in Utah. Influenza-like illness activity is below baseline statewide. As of November 16, 2011, 1 influenza-associated hospitalization has been reported to the UDOH. More information can be found at http://health.utah.gov/epi/diseases/flu.
† Diagnosed HIV infections, regardless of AIDS diagnosis.
‡ Budget has been revised to include supplemental funding from 2011 General Session.
§ Only includes the gross pharmacy costs. Pharmacy Rebate and Pharmacy Part-D amounts are excluded from this line item.
¶ % Change could be due to random variation.
# State rank based on age-adjusted rates.
Notes: Data for notifiable diseases are preliminary and subject to change upon the completion of ongoing disease investigations. Active surveillance for West Nile virus has ended until the 2012 season.