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UTAH DEPARTMENT OF HEALTH
Bureau of Emergency Medical Services and Preparedness

THE PREPAREDNESS POST

UTAH DEPARTMENT OF HEALTH

The Future of Public Health Preparedness

By Dean Penovich

Beginning in 2001, local, state, and federal public health agencies received funding to focus on preparedness for public health emergencies. With 15 years of work under our belts, now it's time to move into the full realm of emergency management in public health.

Emergency management consists of four phases: planning, mitigation, response, and recovery. Over the past 15 years, state and local public health departments have focused on planning through the Public Health Emergency Preparedness (PHEP) cooperative agreement received from the Centers for Disease Control and Prevention (CDC).

Recently, I attended a meeting where officials discussed the future direction of PHEP. CDC is looking to move the next five-year cooperative agreement in the direction of Public Health Emergency Management and Response.

The CDC presented attendees with six core domains of public health emergency management and response. The six domains include: 1) strengthen community resilience, 2) strengthen bio-surveillance, 3) strengthen incident management, 4) strengthen information management, 5) strengthen countermeasures and mitigation, and 6) strengthen surge management.

As we expand our focus to these new core domains, public health partners must continue with efforts to enhance the day-to-day public health impact of the PHEP program, assure accountability of PHEP investments, and identify opportunities for continued program development. One way to accomplish this is by using the PHEP Communication Toolkit developed by the Association of State and Territorial Health Officials (ASTHO). This communication toolkit was developed to advance awareness of public health emergency management and to educate leaders and public health stakeholders about the PHEP accomplishments that keep our communities protected and prepared. The toolkit can be found at the following link: phepimpacts.com.

It is a key element of public safety. After years of partnership building, we are

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now seen as experts in Emergency Support Function (ESF)-8 functions and looked upon as a full partner in local emergency management. We will continue to work hand in glove with our excellent community partners to improve and enrich preparedness and response capability in our jurisdictions.

Leadership Changes (A Note from Dr. Miner)

Tuesday, October 18, 2016

As you all know, last Friday marked the retirement of Deputy Director Dr. Bob Rolfs. Bob was a trusted advisor and a true champion for our department, and for public health in general. His presence will be missed.

Today I am pleased to announce the appointment of Dr. Marc Babitz as our new deputy director. Dr. Babitz has been with the Department since 2005 and has served as director of the Divisions of Health Systems Improvement and Family Health and Preparedness. Dr. Babitz is a board certified family medicine physician, he served 20 years with the U.S. Public Health Service, and still sees patients on a volunteer basis in our Health Clinics of Utah. Prior to joining the Department, Dr. Babitz served as a professor and director of Student Programs in Family Medicine at the University of Utah. Dr. Babitz graduated from the University of California, at Davis and received his MD from the University of California, at San Francisco.

In addition, Paul Patrick will be replacing Dr. Babitz as director of the Division of Family Health and Preparedness. Paul has been with the Department for 28 years, serving most recently as deputy division director and director of the Bureau of EMS and Preparedness. Paul has received many quality awards from the Department, was involved extensively during the 2002 Salt Lake Winter Olympics, preparations for the 2004 Athens Summer Olympics, and with the many agencies in the State on EMS issues.

Please join me in congratulating Dr. Babitz and Paul on their new roles.

Welcome, Bryan Burk!

The Utah Public Health Laboratory's (UPHL) Biosafety Officer is Bryan Burk! This responsibility is funded by the ELC grant and serves the UPHL and sentinel facilities within its jurisdiction. Bryan joined UPHL in January 2016 and has been actively on-boarding through training and immersion in the biosafety field. Bryan is also performing serology testing and training with the arbovirus and bioterrorism laboratory sections at UPHL.

Prior to joining UPHL, Bryan spent 35 years serving in many clinical laboratory disciplines at Primary Children's Hospital including cytogenetics, immunology, and research and development.

UPHL recognizes the value of providing resources with emerging infectious disease testing and Bryan is happy to answer biosafety questions from clinical laboratories and public health professionals.

Bryan lives in Millcreek, Utah. He is an avid backpacker, canoeist and national park enthusiast. He enjoys golf, gardening, and geode gathering. His wife, children and grandchildren are his most valuable assets.

An Unsolved Exposure

by Charla Haley

Following months of study, researchers haven't been able to determine the exact transmission route the Zika virus took from a deceased patient to a family member. (To see the article written by the Salt Lake County Health Department (SLCoHD) and published by the Centers for Disease Control and Prevention (CDC) visit http://www.cdc.gov/mmwr/volumes/65/wr/mm6536e4.htm.)

On July 12, 2016, the Utah Department of Health (UDOH) was notified by a physician who was caring for an adult (patient A) who was being treated for fever, rash, and conjunctivitis that began on July 1. Patient A had not traveled to an area with ongoing Zika virus transmission; had no sexual contact with anyone who had recently traveled; and had not received a blood transfusion, organ transplant, or mosquito bites. However, patient A had provided several days of care for an elderly male family member (the index patient) who had contracted Zika virus while travelling abroad. The index patient developed septic shock with multiple organ failure and died in the hospital on June 25, 2016. The index patient's blood specimen obtained just two days before his death had a level of viremia approximately 100,000 times higher than the average level reported in people infected with Zika virus. Zika virus infection was diagnosed in patient A by testing on a urine specimen collected seven days after symptoms started. Working with Salt Lake and Davis County Health Departments, the UDOH requested help from the CDC to determine patient A's exposures and find a probable source of infection.

The investigation consisted of four components: 1) an epidemiologic evaluation of family contacts of the index patient, 2) a serosurvey of health care workers who provided direct care to the index patient before his death, 3) a community serosurvey around the locations where the index patient lived, and 4) active vector surveillance near the homes of the index patient and patient A. For the purpose of this investigation, a family contact was defined as someone who lived in the same household as the index patient or had direct contact with his body fluids (i.e., tears, conjunctival discharge, saliva, vomitus, urine, or stool) during the period when he was most likely viremic, including a few days before his illness started until he died.

Nineteen family contacts, including patient A, were identified and interviewed, and provided blood or urine specimens for testing. Thirteen family contacts reported hugging and kissing the index patient's face. Five family contacts reported being present as the index patient's stool, urine, or vomitus was cleaned. Patient A also reported hugging and kissing the index patient, similar to what was reported by other family members. In addition, patient A helped hospital personnel by holding the index patient while his stool was being cleaned. Other than patient A, all family contacts were negative for Zika virus infection.

Health care workers who provided care to the index patient and residents living within a 200-meter radius of the two homes where the index patient lived before becoming hospitalized were interviewed to assess risk factors for Zika virus infection and were offered Zika virus testing. No health care workers or community members tested positive for Zika virus infection.

Local mosquito abatement districts worked in collaboration with vector entomologists from CDC to conduct larval and adult mosquito surveillance near the index patient's and patient A's homes. Door-to-door surveys around associated neighborhoods were conducted. Traps were also set to catch mosquitoes, but no *Aedes aegypti* or *Aedes albopictus* mosquitoes that are known carriers of the Zika virus were identified.

It still remains unclear exactly how patient A was infected. But, patient A did have close contact with the index patient while the index patient's viral load was extremely high. Although it is

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An Unsolved Exposure (continued)

uncertain whether this type of close contact was the source of transmission, family contacts should be aware that blood and body fluids of severely ill patients might be infectious. Given that some patients may have high levels of viremia during illness, it is essential that health care workers continue to apply standard precautions while caring for all patients, including those who might have Zika virus disease.

Zika Summit

by Kevin McCulley

With the threat of Zika transmission continuing to loom over much of the United States, early this fall, the Utah Department of Health (UDOH), Bureau of Epidemiology and Bureau of Emergency Medical Services and Preparedness hosted a Zika Preparedness and Planning Summit in Salt Lake City. The day-long event, held on September 1, 2016, brought together more than 120 attendees from Utah's local health departments (LHDs), Indian tribes, mosquito abatement districts (MADs), UDOH, and the medical community to learn, network, and draft local Zika response plans.

To assist in the development of state and local Zika response plans, the Centers for Disease Control and Prevention (CDC) developed a tiered system http://www.cdc.gov/zika/pdfs/zika-draft-interim-conus-plan.pdf. Phases 0 and 1 are considered pre-incident status, with introduced travel cases and/or Aedes mosquito biting activity. Phase 2 is reached when there are confirmed limited local transmissions in a small geographic area within two weeks. Finally, Phase 3 is defined as multiple transmissions across a broader geographic area and sustained for more than two weeks.

Utah experienced an unusual transmission case in the summer of 2016, which elevated us to CDC Transmission Risk Category 2 (local, non-sexual, non-travel case). Other factors impacting this designation include the fact that even though several invasive Aedes mosquitoes were found in southwestern Utah some years ago, experts determined that these mosquitoes were likely brought into the area by vehicle. There is no evidence that the *Aedes aegypti* and *Aedes albopictus* mosquitos are endemic to Utah, so sustained local transmission is unlikely. Mosquito abatement districts continue to conduct surveillance activities for the invasive Aedes mosquitoes. Although there is no evidence of these invasive mosquitoes in Utah, many Utah residents travel to areas with Zika, and have contracted Zika virus infections. As of November 7, 2016, Utah has tested 622 individuals. Twenty people have tested positive, including nine pregnant women.

To address the critical issues surrounding Zika virus, the Summit included sessions on enhanced epidemiology and surveillance, risk communications and public messaging, development of incident command for vector-borne diseases, outreach to pregnant women, clinical messaging, vector control, laboratory services, and protection of the blood supply.

Follow up actions include the development of coordinated LHD/MAD plans, implementation of prenatal and newborn tracking systems, protocols for messaging to clinicians, pregnant women, and travelers, and increased understanding of the coordination and support needed from many partners to address novel pathogens that will continue to emerge in Utah.

For more information on Zika virus, contact the Utah Department of Health at 801-538-6191 or visit:

http://health.utah.gov/epi/diseases/zika/.

Uniting to Explore the Links Between Human Health and Animal Health

By JoDee Baker

On October 13, 2016, Utah held its second annual Utah One Health Symposium at the beautiful Zermatt Resort in Midway, Utah.

Background:

Three years ago, the Utah Department of Health (UDOH) convened the first Rabies Compendium Conference to focus on rabies control and prevention in Utah. In the years following, those involved recognized the need for collaboration and education on a number of related topics, leading to a significant change in the scope and content of the yearly conference. In 2015, the name of the conference was officially changed to the Utah One Health Symposium and the target audience was expanded to include human and animal health care providers, animal control agencies, scientists, environmental health, and epidemiologists. The driving force behind the Utah One Health Symposium is the concept that the health of Utahns is directly impacted by the relationships between humans, animals, and the environment.

The Utah One Health Symposium is a joint effort, hosted by several agencies and groups, including Utah State University, the Utah Department of Agriculture and Food, the Utah Veterinary Medical Association, and UDOH. The Symposium is designed to enhance communication between a diverse group of professionals in order to create multidisciplinary solutions to public health challenges.

Dr. Marguerite Pappaioanou, DVM, MPVM, PhD was the keynote speaker for the 2016 Utah One Health Symposium. With more than 30 years of experience working on domestic and global public health issues, she highlighted the power of collaboration between animal health, human health, and the environment.

Conference attendees also learned more about the Zika virus including, critical partnerships in combating Zika, as well as the importance of vector-control. Animal control experts, representatives from the Division of Wildlife Resources and UDOH employees presented information about rabies and other zoonotic diseases.

A main focus of the conference is bringing the many disciplines together to collaborate. Dr. Jane Kelly provided various scenarios for the attendees to consider and discuss. Dr. Barry Pittman, the State Veterinarian also discussed the Food Freedom Movement and the amount of misinformation available on the internet.

The success of this symposium can be attributed to the diverse nature of the disciplines represented on the planning committee. The committee represented individuals from the Utah Department of Health, Utah Department of Agriculture and Food, Utah State University, Utah Division of Wildlife Resources, Utah Public Health Laboratory, Davis County Animal Control, USDA, University of Utah School of Medicine, Salt Lake County Health Department, Salt Lake Animal Services, and Utah Veterinary Diagnostic Laboratory.

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SPECIAL EVENTS

Packaging and Shipping Course

The Utah Public Health Laboratory is offering a **Packaging and Shipping: Division 6.2 Materials** course on **January 17, 2017 at the St. George Courtyard Marriott**. This course is an intermediate-level, one-day program providing a comprehensive overview of regulations applicable to packaging and shipping laboratory specimens. The course will involve lectures, demonstrations, and group exercises to provide instruction on complying with international, federal, and local transportation regulations. Participants meet Department of Transportation (DOT) training requirements upon satisfactory course completion. Please contact Annette Atkinson, aatkinson@utah.gov for more information.

Rural Preparedness Summit

A great opportunity to learn and review many of the emergency plans in rural Southwest Utah. Anyone interested in emergency preparedness will want to attend the Rural Preparedness Summit.

Who Should Attend: Emergency management, first responders, health and medical professionals, emergency volunteers (all Citizen Corps members), community leaders, and anyone interested in learning about the rural community emergency plans.

What to Expect: Education and information about the emergency plans and processes developed for the Southwest Region, including county-specific plans for Beaver, Garfield, Iron, Kane, and Washington counties.

Why Attend: Over the past ten years many different emergency plans have been exercised. This summit will allow new partners and citizens to learn about the emergency plans that are currently developed. The Rural Preparedness Summit's focus is to fill knowledge-based gaps identified in recent exercises and increase learning.

When: Monday, February 27, 2017 - 10:00 a.m. to 5:00 p.m. and Tuesday, February 28 - 8:00 a.m. to 5:00 p.m.

Location: The Gardner Center at Dixie State University campus, 225 S. 700 E (University Ave.) St George, UT 84770. Directions to this location and information about parking will be provided.

How to Register: prepsummit.eventbrite.com

For those living and working in the Southwest Region boundaries, most of the Summit costs will be covered. Those who live and work outside the Southwest Region boundaries will need to pay a higher registration fee to attend. See "Tickets" for additional details.

Educational Credit offered upon completion of Summit:

CME for MD's, DO's, PA's, etc.

CME for EMS

CEU for Nurses

Calendar 2016-2017 Training

Date	Event	Location	Information
December 1-2 **8 a.m. to 5 p.m.**	Training Identification Preparedness Planning (MGT-418) Course	Intermountain Center for Disaster Pre-paredness (ICDP) 3rd Floor North 325 8th Avenue C Street Salt Lake City, UT	**FREE** To Register: **https://www.utah.train.org** **Course # 1064671**
January 11-12, 2017	Utah Emergency Management Association (UEMA) Conference	Viridian Event Center 8030 S. 1825 W. West Jordan, UT	**Cost: $99** Carrie Grant (801) 587-1005 To Register: https://www.regonline.com/builder/site/Default.aspx?
February 27-28, 2017	Rural Preparedness Summit 2017	Dixie State University Gardner Center 225 S. 700 E. St. George, UT	**Cost: $0-$130** To Register: https://www.eventbrite.com/e/rural-preparedness-summit-2017-tickets-26959064287
March 28-29, 2017	Utah Public Health Association (UPHA) Conference	Marriott Park City, UT	http://upha.org/conference/
May 16-17, 2017	Governor's Public Safety Summit	Davis Convention Center, Layton, UT	TBD

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