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Statewide Bioterrorism Exercise will Move Bits...Not Atoms for Medical Response

(Billings, MT) In cooperation with the U.S. Health Resources and Services Administration (HRSA), DCB Consulting, LLC and St. Vincent Healthcare (SVH) will conduct a statewide bioterrorism exercise to test and demonstrate the abilities of advanced communication technologies in disaster response on June 22, 2005. The drill is designed to engage and educate healthcare professionals and other service providers around the state in the strategies and methods needed to respond to a bioterrorism attack. The exercise will highlight methods for moving critical information in a disaster across multiple mediums (web portal, streaming video, video conferencing). An open communication platform web portal, www.lastchancedrill.org, has been developed specifically for the event and will provide not only a leave behind for state emergency planners, but also the ability to archive the results of the exercise. The Bioterrorism Exercise will culminate in a larger statewide exercise in conjunction with Montana DPHHS and DES the week of June 20-25, 2005.

“Today’s preparedness efforts are still entrenched in the moving of human responders and patients rather than information, and we hope this project will highlight the ability of moving bits instead of atoms to provide a more efficient and effective medical response to a mass casualty event. We hope to promote realistic resource sharing among the various stakeholders around the state,” says David Balch, DCB Consulting, LLC, principal. “Redundant, robust communications should offer a significant advantage to both the event command structure and first receivers in sharing information which promotes a far clearer perspective of situational awareness and prioritization of response efforts.” Says, Carl Taylor Assistant Dean at the University of South Alabama College of Medicine and a DCB, LLC resource.

When completed, the exercise will highlight the importance of communication technologies in disaster preparedness and response. “Our priority is to provide the best, most compassionate care possible to the people of our region. This training will help us walk through what could happen during a bioterrorism event, and will give us an opportunity to test our information technology approach in identifying, triaging, treating and stabilizing as many as 500 patients. It is an important part of developing our comprehensive system of readiness in case of a disaster of this magnitude,” says Michelle Hood, CEO of St. Vincent Healthcare and of the Montana Region of the Sisters of Charity of Leavenworth Health System.

The exercise will leverage existing individual community exercises and HEICS training currently underway in Montana. The focus will be on surge capacity—the ability of hospitals and medical responders to handle a large surge in the influx of patients. “Surge capacity issues are one of the largest challenges we face in preparing for the threat of Biological and Chemical attacks that have been articulated by terrorist factions against the United States or by force of nature such as avian influenza,” says Carl Taylor, who heads the Office of Emerging Health Technologies, at the University of South Alabama-Mobile. Taylor adds, “When you add potential complicating factors such as bad weather, hospitals that are already full, limited ambulances, nursing and physician shortages, and the possibility that bad bugs will not respect borders but rather may impact broad reaches of our country, these challenges become even more daunting. This exercise brings together many experts and communication technologies that can help address these issues.”

The success of this project wouldn’t be possible without key partners and technology demonstrators. Several noted below:

- Ramsafe Technologies (www.ramsafe.com) will demonstrate how an EOC can automate procedural checklists, integrate resource management, organize contact information and documents, and use a bio-terrorism/multihazard predictive and decision support modeling tool.

- GCS Research (<http://home.gcs-research.net>), a geospatial IT company, will demonstrate several web-based tools.
 - Syndromic Surveillance Information System (SSIS) for the University of Montana School of Pharmacy and Allied Health Science Program. The system is called “OTC Drug Web” and was funded by a US Center for Disease Control bioterrorism grant and administered by the Montana Department of Public Health and Human Services. The School of Pharmacy SSIS allows participating public health officials across Montana to monitor the sales of key indicator Over-the-Counter (OTC) pharmaceuticals. By tracking the sales and location of these commonly used drugs, public health officials are able to determine abnormal sale volumes and use this information to monitor emergent epidemiological events of concern.
 - ESRI’s ArcGIS Extension allows exercise officials to import, visualize, and on-the-fly map geographic routes of their video assets.
 - Flathead County Mapping System is a planning and analysis tool set comprised of various data types, including GPS data and digitized locations from cartographic products, photography, and surveys of record.
- InTouch Health® (www.intouchhealth.com) will demonstrate the ability of RP-6™, a wireless, mobile Remote Presence™ robot, to examine a quarantined patient that has been affected by a biological contaminant.
- ESRI (www.esri.com) will demonstrate how ArcGIS software allows exercise officials to import, visualize, analyze and create on-the-fly maps for communication and decision making purposes. Existing spatial datasets and real-time information (i.e., hospital capacity, live weather, and traffic) can be consumed from web services and other distributed data sources and easily integrated into the ArcGIS framework. ESRI will highlight examples of chemical plume modeling, network analysis for optimized routing and distribution of the strategic national stockpile, mapping of resources for incident response, and demographic analysis for determining affected populations.

- The Montana State Library's Natural Resources Information Systems (NRIS) (<http://nr.is.state.mt.us>), an interactive Internet mapping tool for accessing a wide variety of information about Montana's counties, streams, towns, and watersheds, will be available to decision makers during this event.
- REACH, PHTN, EMTN, Vision Net, and METNET networks will lend their videoconferencing bridging services to connect over 35 rural hospitals, clinics, and community centers throughout the exercise
- Wavz Research Inc. (www.wavzresearch.com), constructed a customized blog and portal (www.lastchancedrill.org) to centralize communication, documents, links and streaming video during the event, as well as a "leave behind" product that will include lessons learned and significant events.

For additional information, please contact the Telehealth Exercise Coordinator, David Balch, davidbalch@yahoo.com, 252.917.4412.

About DCB Consulting, LLC: provides professional consulting services in Digital Media Technologies, Telemedicine, and Homeland Security. Current clients include MINDTEL, DARPA, St Vincent Healthcare in Billings, MT, Loma Linda University Medical Center (CA), and the American Telemedicine Association (ATA). Activities with MINDTEL and DARPA include technology development for the DARPA Grand Challenge, communication technologies for SPAWAR (West Coast), and adaptive communication technologies for rural and austere environments.

About St. Vincent Healthcare (<http://www.svh-mt.org>): The Sisters of Charity of Leavenworth, Kansas founded St. Vincent Healthcare in Billings in 1898. Renowned for a Mission of compassionate care and service to the poor, the St. Vincent Healthcare team is continually recognized as a technological leader in the healthcare industry.

St. Vincent offers progressive specialty services in Cardiology, Neurology, Oncology, Orthopedics, Surgery, & Women's & Children's Services. St. Vincent is a certified Level II Trauma Center and also sponsors the HELP Flight Program, a transitional care unit, a physical rehabilitation center, and numerous specialty and primary care clinics.

Over the last 100 years, the Mission of St. Vincent Healthcare has been a profoundly human one – to improve the health of individuals and communities we serve, especially those who are poor and vulnerable. Today, by combining holistic care with the latest technology, St. Vincent Healthcare is on the cutting edge of providing quality, comprehensive healthcare.