

2011-2012
Summary of Scholarly Activities
Center for Strategic Health Innovation

- I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS**
- II. PUBLISHED ABSTRACTS**
- III. PUBLISHED BOOKS**
- IV. INVITED PRESENTATIONS**

Lafky D. Invited speaker. Countering the cyber threat in an emerging healthcare IT ecosystem. Military Electronic Health Records Conference; 2012 Mar 15; Washington, DC.

Lafky D. Invited speaker. Security integration into IT decisions. HIT Health Transformation Conference; 2012 Apr 3; Jacksonville, FL.

Lafky D. Invited speaker. The future of health. Toffler Associates; 2012 Sep 25; Washington, DC.

Roach RD. Invited speaker. Alabama One Health Record[®] - health information exchange overview. Alabama Chapters of the American Academy of Pediatrics and the American Academy of Family Physicians – Physician Meeting; 2011 Nov 29; Alabama Statewide Webinar, Montgomery, AL.

Roach RD. Invited speaker. Alabama health information technology updates. Medical Association of the State of Alabama – Technology Symposium; 2012 Feb 10; Birmingham, AL.

Roach RD. Invited speaker. Alabama One Health Record[®] - health information exchange and meaningful use overview. Alabama Medicaid Senior Staff Meeting; 2012 Feb 28; Montgomery, AL.

Roach RD. Invited speaker. Alabama One Health Record[®] - health information exchange and meaningful use overview. Alabama State University Health Information Management Assembly; 2012 Mar 9; Montgomery, AL.

Roach RD. Invited speaker. Alabama One Health Record[®] - health information exchange and meaningful use overview. Health Financial Managers Association Meeting; 2012 Mar 15; Huntsville, AL.

Roach RD. Invited speaker. Alabama One Health Record® - Alabama Medicaid, and the Alabama Regional Extension Center collaborative efforts. Centers for Medicare and Medicaid Services HITECH Conference; 2012 Apr 11; Baltimore, MD.

Roach RD. Invited speaker. Alabama One Health Record® - health information exchange and meaningful use overview. Alabama Physician's Task Force Meeting; 2012 Apr 26; Montgomery, AL.

Roach RD. Invited speaker. Alabama One Health Record® - health information exchange and meaningful use overview. CPSI National Physician User's Group Meeting; 2012 May 12; Sandestin, FL.

Roach RD. Invited speaker. Alabama One Health Record® - Alabama Medicaid, and the Alabama Regional Extension Center collaborative efforts. Medicaid Enterprise Systems Conference; 2012 Aug 21; Boston, MA.

Roach RD. Invited speaker. Stage II meaningful use. Alabama Healthcare Information and Management Systems Society Meeting; 2012 Sep 21; Birmingham, AL.

Ross C. Invited speaker. In the eye of the storm: creating a community response network starts within your community. Alabama Primary Health Care Association 26th Annual Conference; 2011 Oct 6; Mobile, AL.

Taylor C. Invited speaker. Hospital-related health information sharing capabilities. National Community Health Resilience Workshop; 2011 Oct 25; Washington, D.C.

Wallace D. Invited speaker. Emergency preparedness for community health centers. Health Care for Residents of Public Housing Regional Training Meeting; 2011 Nov 8; Austin, TX.

Wallace D. Invited speaker. The capability and capacity of hospitals to respond to the April 27, 2011, tornadoes; planning and responding to high-impact weather disasters. American Meteorological Society's Fourth Conference on Environment and Health; 2012 Jan 24; New Orleans, LA.

Wallace D. Invited speaker. Preparedness training for environmental and natural disasters. Gulf States Shipbuilders Consortium; 2012 Mar 28; Mobile, AL.

V. NATIONAL PROFESSIONAL RECOGNITION

Deborah Lafky, Ph.D., MSIS, CISSP joined CSHI as Director in February, 2012. Previously, she served in the Office of the National Coordinator for Health IT, US Department of Health and Human Services. In that role, she directed the Health IT security function within the Office of the Chief Privacy Officer. She was the ONC lead for the Health IT Task Force Cybersecurity Working Group, chaired by the Hon. Howard Schmidt. She was the ONC lead for the Health IT Standards Committee, a Federal

Advisory Committee, and she was also the ONC lead for the Health Information Technology and Standards Panel Privacy and Security Working Group. Currently, she is a member of the board of directors of the National Health ISAC (Health and Public Health sector Information Sharing and Analysis Center, established under HSPD-7) and of the sector coordinating committee of the Health and Public Health sector. Dr. Lafky recently served as an advisor to the American Medical Association's Health Security Card program, funded by the Center for Disease Control and Prevention. Dr. Lafky represents the Alabama Regional Extension Center at the executive level, including ONC Regional Grantee Meetings and at the REC Sustainability Summit in Denver, CO. She represented USA as a member of the Alabama Health Information Management Systems Society (HIMSS) advocacy group in September 2012, meeting with Congressman Bonner and his legislative assistant, along with legislative aides to Senators Sessions and Shelby on Capitol Hill. Dr. Lafky is active in professional societies including the American Medical Informatics Association, where she participates in the Consumer Health and Population Health workgroups; HIMSS, the Association for Information Systems (AIS), and ISC², the professional society for information security. She serves on the advisory board for the American Medical Association's Health Security Card for Use in Disasters and Public Health Emergencies: Translating Research into Practice. Dr. Lafky leads the ONC Staff and Alumni Association, and is active with the International Rectifier Alumni Association, leading the nomination of that company's founder for the National Medal of Technology and Innovation.

Dan Roach III, MD continues to serve as Health Information Technology Coordinator for the State of Alabama.

David Wallace, DVM has been appointed to The Emergency Preparedness for Federally Qualified Health Centers National Working Group. The goal of this group will be to develop collaborations for training and technical assistance to address the unique needs of federally qualified community health centers (FQHCs), with a special focus on at-risk populations such as public housing residents and seniors. This national working group will share emergency preparedness resources and seek to build partnerships, linking federal interests with those at the state, local and community levels. David Wallace and Carolyn Ross were invited to support the USVI Department of Health during Operation Tide Breaker, a FEMA sponsored full-scale disaster response exercise in St. Thomas, USVI, December 12-15, 2011. The USVI version of AIMS (Alabama Incident Management System) was activated and managed during the exercise to provide real-time situational awareness and facilitate patient identification and tracking using the AIMS automated patient tracking module.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

Project Year 2011-2012 represented a transitional period for the Center for Strategic Health Innovation (CSHI). Long-time director Carl Taylor was succeeded in February 2012 by Dr. Deborah Lafky, who took up the Director position after 5 years with the Office of the National Coordinator for Health IT (ONC). Since then, CSHI has solidified organizationally around the following objectives: a) program integration across all lines

of activity; b) developing a high-performance team; c) increasing research activity. To those ends, CSHI has a) initiated a staff re-organization, with operations management spanning all CSHI programs; b) honed ALREC performance and attained a top national ranking among the 62 REC programs; c) pursued publication opportunities, provided for a research component in all new proposals, and participated actively in outreach to raise public awareness of the Center's capabilities.

NCDMR: On-going improvements that lay the foundation for the National Center for Disaster Medical Response are nearly complete. New capacity coming online includes a tripling of medical simulator capacity, added decontamination training equipment, and high-definition immersive learning technologies to advance the process of disaster preparedness and response. In addition, improvements to the student experience are under way, including a professional registration facility with added wait-time amenities, an improved classroom sound system, and expanded staff facilities to accommodate approved open staffing slots. In September 2012, a candidate for NCDMR's open professional trainer position was identified and accepted the position with a start date in October 2012. This will increase NCDMR's training capability by 30%.

Alabama Incident Management System (AIMS): AIMS is management information software designed to capture Hospital Incident Command System (HICS) reported surge data, or information regarding the real-time status of a hospital's ability to triage, treat, and transfer victims of a disaster in a timely manner. Critical data such as available beds, supplies, staffing, and equipment is entered into a database at each participating healthcare facility and then transmitted and displayed at the local or regional Emergency Operations Centers (EOC) for use making emergent decisions. CSHI boasts a total of 787 user facilities including: 18 Community Health Centers, 11 EMA facilities, 319 EMS providers, 1 EMS EOC facility, 12 ADPH EOC facilities, 27 Evacuee Shelters, 124 Hospitals, 17 Medical Needs Shelters, and 258 Nursing Homes. Under contract with the Alabama Department of Public Health Center for Emergency Preparedness (ADPH CEP), CSHI continues to promote AIMS as a daily use tool for health facilities across the state, as well as to develop and promote cross border links in AIMS. Enhancements and upgrades to AIMS include development and deployment of a people tracking module to track people in medical needs shelters and evacuee shelters during a disaster thereby enhancing the situational awareness of ADPH, development of a disaster information repository (ncdmr.org) to provide important disaster related information to disaster management officials, and continued development of social networking capabilities to encourage the establishment of local response regions among health facilities in the same region. In the past year, AIMS was utilized for monthly exercises, surveillance of heat related illnesses, and management of tropical storm/hurricane Isaac. New features include chatting capability to enhance facility to facility communication, an EPI surveillance tool, programming interface to allow automatic data reporting from hospital systems, further integration with social networking tools and development of a smart phone interface for reporting data.

Training Programs: Now in its ninth year, ARRTC is regional response training designed to teach effective collaborative healthcare community response to all disasters, natural or man-made. This program is made possible by a grant from the Alabama Department of Public Health Center for Emergency Preparedness through a cooperative agreement from ASPR. This year, CSHI offered training on-site in Mobile (ARRTC Basic) and at regional hospitals and other facilities throughout the state (ARRTC Road Show). ARRTC Basic was a two-day course designed to provide regional response partners charged with disaster preparedness, response and leadership responsibilities with basic, core disaster response training. Sessions were scheduled by hospital planning region, fostering interaction with regional response partners. This year, as a subset of ARRTC Basic, two ARRTC Administrative sessions were presented for Chief and Administrator level personnel charged with disaster response leadership for their organizations. This course featured nationally recognized speakers who shared their experience and expertise on disaster response leadership. ARRTC Road Show was a one day course which took ARRTC training to healthcare facilities across the state, thereby allowing participation by more staff, and inviting the participation of regional neighbors/response partners for the purpose of establishing and enhancing a common knowledge of the basics of disaster response for healthcare facilities. This year, Road Show course content was designed by each facility from a menu of topics to reflect the specific needs of each facility/area. In addition to ARRTC Basic and Roadshow, this year a pilot project was presented as ARRTC Advanced – Disaster Preparedness-Clinical Simulation Training. Five one-day interactive training sessions were held for clinicians charged with disaster response in their organizations. Including all three types of sessions, a combined total of 53 sessions were presented to participants, which included representatives from public health, hospitals, nursing homes, community health centers (CHCs), and emergency management and response agencies. Attendee evaluation scores were consistently high, with 98% rating the program as “Excellent” or “Good.”

Medical Informatics and Healthcare Technology Applications: CSHI continually endeavors to use emerging health technologies to improve the quality, cost, care, and access to healthcare within our state and beyond. One of the keys to our success is Realtime Medical Electronic Data Exchange (RMEDE™), a secure web-based life-state management system including in-home monitoring of patients with chronic disease and an interventional informatics reporting system. CSHI currently manages 1.1 million patient records and approximately 600 Medicaid patients participated in our in-home monitoring project. In 2011-2012, CSHI continued its critical partnership with the Alabama Medicaid Patient 1st program and the Alabama Department of Public Health for the delivery of in-home monitoring of patients using RMEDE™. In this program, patients suffering from chronic illnesses such as diabetes, congestive heart failure, and hypertension are monitored for significant changes by using an innovative Interactive Voice Response (IVR) system. Patients are instructed to dial-in their key physiologic parameters, and an ADPH Life Care Nurse is assigned to monitor the results and submit reports to the patient’s provider. CSHI also continued its’ partnership with the Medicaid Maternity Program in their quest for Better Birth Outcomes and lower Infant Mortality rates. RMEDE™ is used to develop a data collection system with reporting capabilities utilizing recipient information gathered from enrollment activities to evaluate compliance

with accepted national standards of practice. RMEDE™ provides Medicaid and their contractors the ability to enter and view the data online. Data is utilized by Medicaid to determine benchmarks for compliance and comparisons.

In addition, we have continued our partnership with Alabama Medicaid to support the Patient Care Networks of Alabama (PCNA) project. PCNA is a primary care case management (PCCM) program which establishes regional networks of care or a “medical neighborhood” which is designed to improve the delivery of health care services to Medicaid recipients, especially those recipients with complex medical conditions of diabetes and asthma. RMEDE™ serves as the framework used by the PCNA for data management, patient risk stratification, patient case management, automatic agency to agency electronic referral, aggregation of Medicaid medical and pharmacy claims data, and program reporting needs. There are three active areas in the state with a fourth pilot area added this year.

CSHI continues to operate the Alabama Regional Extension Center (ALREC), which is the product of an \$8.5 Million grant awarded by the Office of the National Coordinator for Health Information Technology (ONC). The mission of ALREC is to help primary care providers in small and medium-sized medical practices select, implement, and become meaningful users of certified electronic health record systems. CSHI is now half way through the project and has emerged as one of the top 3 regional extension centers in the nation. We have already achieved our goal of enrolling 1304 providers, and have exceeded the expectations of ONC by helping 1212 “go live” on a certified electronic health record system and helping 420 providers reach meaningful use. Because of these successes, ALREC is one of only three RECs selected to be highlighted by means of a professionally produced educational video to be shown at the American Medical Informatics Association meeting in November 2012.