



TBI STATE PARTNERSHIP PROGRAM

Hosts Brain Injury Regional Workshops

In an effort to serve members of the TBI community closer to their homes, the TBI State Partnership Program (TBI SPP) and the Trauma Rehabilitation Resources Program (TRRP) teams are working in partnership with agencies, organizations, and programs that serve

the state's TBI population to develop regional brain injury workshops. The focus of these regional events is to provide information that improves the quality of life for people living with brain injuries. The day-long gathering includes networking opportunities, education, telemedicine demonstration, TRIUMPH Call Center, and local community resources. Popular presentations at past events have included Smart 911, Canine Companions for Independence, and life experiences shared by people living with brain injuries.

The events also provide an opportunity for participants to share their ideas for the Arkansas State Plan for Traumatic Brain Injury with each other and through a survey. Information gathered is reviewed for inclusion into the state plan. Terri Imus, PI for the TBI SPP grant stated, "The participants have been fully engaged in the discussions and have expressed their appreciation for the opportunity to learn about much-needed resources and to share their needs for additional resources in their communities."

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Message from Dr. Lowery

Dear Readers,

It is hard to believe that we are already sharing our second newsletter. As a refresher, our work began in 2003 with the IDHI OB Program, previously known as ANGELS, and has expanded through the years to include other award-winning telehealth programs in disciplines ranging from neurology to school-based health. IDHI formed in early 2019 when it adopted existing telemedicine programs along with a new vision of digital health solutions for UAMS and Arkansas. Despite a busy year of changes, IDHI has already made great strides toward improving healthcare in our state, including for students in select School-Based Health Centers. During year two of our school-based program, STAR, there was a 41% reduction in BMI for participating students. We are proud of this and all of our other accomplishments.

IDHI is working to create new programs that address digital health interests such as mHealth, predictive modeling, artificial intelligence, and expansion to in-home healthcare. Some of these proposed programs include initiatives for customizable, web-based

telemedicine platforms for rural hospitals and clinics; emergency department triage and management for potential patient transfers; and digital health training for UAMS' specialists and physicians.

This issue covers some of the far-reaching activities we have undertaken, including for our stroke program, which continues to raise awareness on the signs and symptoms of stroke; our TBI partnership events; and our public school programs. In the pages ahead, you will additionally see information about a recently funded, groundbreaking digital health program and more.

We are excited to see where the Institute will go moving forward.

Stayed tuned!

Sincerely,

Curtis Lowery, MD

Director, UAMS Institute for Digital Health & Innovation
University of Arkansas for Medical Sciences

Department Spotlight Evaluation and Research Team

Front row, left to right:

Hannah McCoy,
Naleen Raj Bhandari,
Rachel Luebke

Back row, left to right:

Hari Eswaran, PhD,
Nalin Payakachat, PhD,
Yi-Shan Sung, PhD

Not pictured:

Rachel Ott,
Songthip Ounpraseuth, PhD



At each event, partnering exhibitors participate in a round table to provide a brief overview of their services. Participants are able to visit each exhibitor to talk more in depth about their individual needs. Participating exhibitors have included Choices in Living, Social Security, ICAN Assistant Technology, Smart 911, Canine Companions for Independence, Northwest Health Systems in Springdale, UAMS Regional Programs in Batesville, Sources, and Arkansas State Independent Living Services. New partners for upcoming events include Protection and Advocacy for Voting Access and Arkansas Rehabilitation Services.

Over the next year, the TBI SPP and TRRP teams plan to host additional workshops across the state, which will allow face-to-face engagement with more of the TBI community. Information gathered at each workshop ensures improvement for future workshops. For example, participants are now providing input on the development of a virtual support group.

Regional outreach events allow the TBI SPP and TRRP teams to provide follow up phone calls to those listed on the legislatively-mandated TBI Registry. The phone calls are an opportunity to check on the well-being of those on the registry, share information and resources, and to extend a personal invitation to attend a regional event. Invitations are also sent in the regular mail. A reference guide that documents the event in a scrapbook-like format is distributed after the event to ensure that all participants have access to the resources discussed at the workshop.

Events have been held in Batesville, Helena and Springdale. Upcoming workshops include the UAMS Regional Programs Facility at the Jacksonville Community Center (December 9). There is no charge for the workshops, and participants are treated to lunch. Terri Imus and Kim Lamb, Assistant Director for the TBI SPP grant, recently presented the Arkansas Outreach Model for Regional Brain Injury Workshops to the Administration for Community Living (ACL) TBI SPP underserved populations workgroup. The model will be documented in a national toolkit for use by other

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partner and mentor states. The Arkansas TBI SPP team also facilitated discussions between the underserved populations workgroup and SMART 911 officials to enhance information about disabilities for first responders within the customized SMART 911 profile.

Learn more about the TBI SPP
here: tinyurl.com/ARTBISPP

Learn on Demand Module

Severe Hypertension in Pregnancy

Presenters: Margaret Glasgow, BSN, RNC-OB and Donna Ezell, AD, RN

1.25 Hours > NONACCR

1.25 Credits > ACCME > AMA PRA Category 1 Credit™

1.25 Contact Hours > ACPE > ACPE

1.25 Contact Hours > ANCC > ANCC

<https://learnondemand.org/lms/activity?@activity.id=6897172>

Knowledge Gap:

The purpose of this activity is to educate healthcare providers who may not have access to the latest recommendations for Severe Hypertension in Pregnancy.





Be on the lookout for

SANE Grant

UAMS IDHI will be establishing a digital health program that will provide the expertise of sexual assault nurse examiners to rural hospital emergency departments through live video consults. The U.S. Department of Justice's Office for Victims of Crime awarded a \$4 million dollar federal grant to the University of Arkansas for Medical Sciences (UAMS) Institute for Digital Health & Innovation. The three year grant will increase access to and improve the quality of sexual assault forensic examinations, provide victims standards of care, and assist with connecting follow-up services in a victim's local area. It will promote awareness of sexual assault and the availability of sexual assault nurse examiners in rural communities or any emergency department without a SANE. Sexual assault nurse examiners working in the program will assist local emergency departments in collecting forensic evidence, implementing treatment protocols, counseling victims, ensuring victim's continued safety, and connecting victims to resources for additional help. We plan to create a website and mobile application that can also aid in assisting victims and medical facilities. We feel strongly that connecting needed expertise to victims through telehealth will increase the reporting rates and justice of sex crimes for victims across our state.

IDHI Stroke Program Conference 2019

September 24th, 2019 | Close to 400 health professionals from all across the state traveled to Hot Springs for the 11th Annual IDHI Stroke Program Conference (formally AR SAVES). The first day kicked off with a pre-conference that focused on the Nurse Facilitator and their backup. The pre-conference allowed the facilitators that represented the collaborating hospitals' facilitators to come together and participate in various hands on skills stations. These stations looked at every aspect of a stroke telemedicine

consult and emphasized the importance of telemedicine etiquette. The purpose of the pre-conference is to not only educate, but to promote open communication amongst the facilitators. Their feedback is not only beneficial to the staff within the IDHI Stroke Program, but also to the other 54 participating hospitals.



The next two days were packed with guest speakers and panels of experts in the field of neurology and emergency medicine. One panel in particular, the Survivor's Panel, has become a treasured tradition. This panel is made up

of individuals who have received treatment through the IDHI Stroke Program. During this panel, survivors share their stories, beginning with onset of symptoms. Oftentimes, staff members who took care of the patients are in the audience and are able to contribute to patients' stories.

It is a truly heart felt moment not only for the survivor but also for the providers that were involved in that patients care. This conference allows the IDHI Stroke Program to recognize the dedication of each hospital and the lives that are saved in every community in Arkansas.



IDHI director and fearless leader Dr. Curtis Lowery and the e-Link portal were featured in the October 2019 issue of Arkansas Money & Politics.

Check out the article at: bit.ly/2POTGcG

Public Schools Program

The fourth and final year of the STAR Grant is in full-swing! STAR, which stands for “School Telemedicine in Arkansas,” is the result of a \$1.2

million dollar HRSA grant that seeks to provide tele-dentistry and tele-behavioral health services to rural School-Based Health Centers throughout the state. STAR’s “HealthyNOW” program, the third component of the grant, seeks to combat obesity through weekly physical activity and nutrition challenges, as well as offer students and faculty individualized health coaching via Telehealth. STAR is currently present in four school districts: Jasper, Lamar, Magazine, and Malvern. Approximately 1,500 students in grades 5th-8th are enrolled in the HealthyNOW program, which has seen significant success in decreasing student obesity rates. This fall,

three additional school districts within the state have started utilizing the HealthyNOW weekly challenges at their schools. STAR was recently selected as an MCHB (Maternal and Child Health Bureau) Grand Challenge Phase 2 Winner and awarded \$25,000 to continue development of the HealthyNOW Mobile-Web App which aims to increase student access to health promotion resources. The STAR program was also recently awarded the “Footprint Award” at the Arkansas 10-Year School-Based Health Center Celebration earlier this month. The STAR Team is enthusiastic about the year ahead and the opportunity to better the lives of students within the state through digital health technology!



hrsa.gov/enews/past-issues/2019/september-19/grand-challenges-demo-days

51% Reduction in BMI Year 1
41% Reduction in BMI Year 2

STATEWIDE ACCESS
to program via social media and website

3 NEW SCHOOL DISTRICTS Mobilized HealthyNOW this school year

The POET

The summer 2019 newsletter introduced our POET (Perinatal Outreach Education Team) outreach education model with an overview of the platforms and adult teaching methods utilized to facilitate our programs and disseminate education throughout the state. A majority of the hospitals in Arkansas cannot fund full-time educators to teach specialized classes such as Electronic Fetal Monitoring, STABLE, Baby Boot Camp, One Team, Neonatal Resuscitation Program, or high-fidelity Obstetrical/Neonatal emergency simulation. That is why our outreach program is so desirable. Nationally certified RN educators with decades of clinical experience

teach IDHI High-Risk Pregnancy Program’s education classes. The entire education team includes simulation technicians and instructional developers who build and offer evidence-based education programs. While we deliver many of our classes in a variety of ways, such as interactive video, blended (both live and interactive format), online, or in-person, the in-person-at-your-facility classes continue to be one of the most requested.

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Our in situ simulation classes are by far the most exciting. In situ simulation allows participants to practice their skills on the hospital unit where care is actually delivered. Practicing in the actual environment allows the healthcare team the opportunity to observe the actions and interactions of the healthcare team and the efficiency of the system. Several of our POETs are trained to work with Victoria, our high-fidelity simulator capable of not only interactively communicating with staff but also simulating cervical dilation, vaginal birth, postpartum hemorrhage, and eclamptic seizure. These simulations and others, including our

new emergency department hypertensive crisis simulation, allows participants to assess issues and perform critical skills in a safe simulation environment, preparing them for real world emergencies. In situ simulations allows facilities the opportunity to practice and test their protocols, emergency response systems, interdepartmental communications, reaction times, and the availability of needed equipment. Patient safety and outcomes are improved when issues are identified and resolved before they happen. In situ simulation gives hospitals this opportunity.

Symposium Focuses on Past, Present, Future of Sickle Cell Disease Treatment

Oct. 1, 2019 | One patient with sickle cell disease can experience severe pain and other symptoms while another with the same disease type only has moderate or even mild pain crises, said UAMS' Issam Makhoul, M.D. "What makes that disease so severe in one individual over another one?" he asked. "That's what we need to learn more about. By participating in clinical trials, we will gain more knowledge about that." Makhoul is medical director for the UAMS Adult Sickle Cell Clinical Program and director of the Division of Hematology/Oncology in the UAMS College of Medicine's Department of Internal Medicine.

He was one of three presenters Sept. 17 at the Sickle Cell Symposium at UAMS. Sixty-one attended the gathering, sponsored by the UAMS Adult Sickle Cell Clinical Program. Suzanne Saccente, M.D., is a pediatric hematologist and medical director of the Sickle Cell Program and Apheresis Program at Arkansas Children's Hospital. She discussed the past of sickle cell disease research and treatment; Makhoul, the present; and Shelley Crary, M.D., the future. Crary is a pediatric hematologist at Arkansas Children's and an associate professor in the UAMS College of Medicine's Department of Pediatrics. Saccente also is an assistant professor in the same department.

Sickle cell disease is a group of inherited red blood cell disorders. Healthy red blood cells are round and travel through small blood vessels to carry oxygen throughout the body. With sickle cell disease, the red blood cells become hard and sticky, and result in a C-shape or “sickle.” When sickle cells travel to small blood vessels, they get trapped and block blood flow to the area. This results in pain and may lead to other problems such as infection, acute chest syndrome, and stroke.

Both Makhoul and Crary discussed the challenges of using gene therapy and its future promise as well as other possible cures like bone marrow transplants. Makhoul described the two approaches to gene therapy being developed. One uses a modified virus to insert a gene segment into a patient’s cells to correct the genetic disorder that causes sickle cell disease. “What’s wrong with this scenario? It’s so hard to do,” Makhoul said. “Our body is designed to fight any kind of infection. The cell is going to try to destroy that virus. It also might try to silence that new gene segment because it’s coming from an outside source.” Another technology makes the same genetic correction to a patient’s cells in the lab so they can be injected into patients to replace the cells that cause sickle cell disease. The cost per patient is estimated to be \$500,000 to \$700,000. Bone marrow transplants are one of the procedures used to restore stem cells and cure sickle cell disease. Recent advances in ‘half-matched’ bone marrow transplantation have allowed for a much broader range of donors. Transplantation comes with risks of chronic complications and even death, although the risk is less than 10 percent with a matched sibling donor, Crary said. “But, for some people, it’s worth the risk to cure their child’s sickle cell,” Crary said. “We present it to families and they have to choose what is right for them.” Apart from treatments and potential cures, the presenters discussed drug therapies like hydroxurea and L-glutamine for treating symptoms and pain crises, as well as pain medications like opioids.

“We shouldn’t just treat pain crises with pain medications,” Makhoul said. “Oxygenation, hydration, and transfusion also are important. All those measures can lessen the pain because it’s a symptom of an acute inflammatory process, sometimes infectious and sometimes not. You need to target all those factors. Low-oxygen levels are the trigger.”





Institute for Digital
Health & Innovation

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past events



South Central Telehealth Forum (SCTF) 2019 at Nashville, TN August 19th & 20th

We had a great time with all our partners, friends, and associates at this year's South Central Telehealth Forum in Nashville! Over 160 participants joined us for two full days of digital health discussion and education. Several great vendors were there along with many presenters well vested in the field of telehealth. Some of the great topics covered were opioid treatment, HIV treatment, establishing and growing telehealth programs, and telehealth etiquette. To view the presentations, go to learntelehealth.org/sctf2019presentationsandrecordings



SEARCH Hosted National Telehealth Research Symposium at Chicago, IL September 11th – 13th

For three days in September, 165 health researchers, academicians, and telehealth visionaries gathered to share findings and foster research partnerships. This was achieved through panel sessions, small group workshops, networking, poster sessions, and keynote addresses from national influencers in telehealth.

Key objectives were:

1. Evaluate evidence-based research that demonstrates the benefits of connected health systems (i.e., telemedicine, telehealth, eHealth, mHealth).
2. Discuss challenges in the field and identify opportunities to overcome barriers to broaden the use of telehealth services.
3. Describe the potential of policy and regulatory research to impact telehealth.
4. Define telehealth training programs and education.
5. Formulate and apply telehealth quality improvement metrics and evaluation tools.
6. Implement learnings and strategies into practice.

Over 80 research abstracts were received and Dr. Curtis Lowery provided opening remarks.

upcoming events

Quarterly Digital Health Series

Noon to 1 p.m., Tuesday, Nov. 19,
ED II, Room 8/121



ow.ly/Kdht3OpT8Tu

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