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Your *First* **STOP** for *Rural Health* **INFORMATION**



Linking Research to Rural Communities with the NIH National Center for Advancing Translational Sciences

Housekeeping

- Q & A to follow Submit questions using Q&A area
- Slides are available at www.ruralhealthinfo.org/webinars/nih-ncats
- Technical difficulties please visit the Zoom Help Center at <u>support.zoom.us</u>

Featured Speakers



Kay Miller Temple, MD, Web Writer, the Rural Health Information Hub



Michael Kurilla, MD, Ph.D, Director, Division of Clinical Innovation, National Center for Advancing Translational Sciences, National Institutes of Health



Laura James, MD, Professor of Pediatrics; Associate Vice Chancellor for Clinical and Translational Research; Director, Translational Research Institute

National Center for Advancing Translational Sciences: Addressing Rural Health Disparities

NIH National Center for Advancing Translational Sciences: Involving Rural America in Research



A new diagnosis of cancer? Of a rare disease? Or a chronic medical problem with seemingly no new treatment? The National Center for Advancing Translational Sciences is supporting investigators and ensuring that their cutting-edge science gets to the people who need it. Translational science teams in Arkansas, Florida and Washington are making that happen in the rural areas of their states.

October 23, 2019

www.ruralhealthinfo.org/rural-monitor/ncats-rural-research/

Translational Science: Research with Results that Touch Rural Populations



Translational science is a specialized research field bringing cutting-edge science to patients that need it. Making sure rural communities are also recipients of new research, the National Center for Advancing Translational Science is a federal agency that facilitates the steps and supports the investigators who want their findings to translate into better health.

October 23, 2019

www.ruralhealthinfo.org/rural-monitor/translational-science/

NCATS Strategic Plan	 Translational science Collaboration and Partnerships Education and Training Stewardship
NCATS Goals	 Conduct/support research with results that catalyze development and dissemination of medical interventions. Advance translational team science by strategically engaging diverse stakeholders/partners. Develop creative and diverse translational science workforce Practice good stewardship of public funds
15	= Science; Brown = Collaboration and partnerships; Green = Workforce Blue = Stewardship



"We *advance* science from one *stage* to another."

Translational Sciences' Spectrum

Steps in using research results

Basic research:

NCATS doesn't do basic science...but it depends on it.

Researchers first discover results that might impact diagnosis or treatment of human disease

Pre-Clinical Research:

Basic science research results ... recognized as results that might actually help deal with a human disease and are used to do further research

Clinical Research:

Use results from pre-clinical research with potential for diagnosing or treating human disease and do follow-up research to test effectiveness and safety

Clinical Implementation

Use the interventions/results found effective and safe in the *clinical research* stage for routine clinical care and often use further research to monitor

Public Health Integration

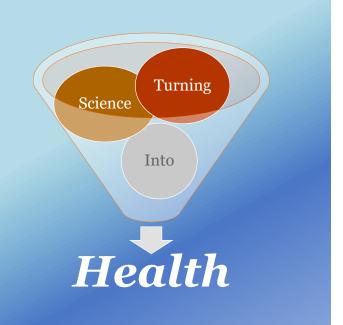
In this stage of translation, researchers study health outcomes at the population level to determine the effects of diseases and efforts to prevent, diagnose and treat them.

Findings help guide scientists working to assess the effects of current interventions and to develop new ones.

https://ncats.nih.gov/translation/spectrum

Health Research Participation, Opportunity, and Willingness Among Minority and	Translational Research Institute, University of Arkansas for Medical Sciences
Rural Communities of Arkansas.	
https://www.ncbi.nlm.nih.gov/pubmed/29772113	
Developing and Launching a Research Participant Registry.	Translational Research Institute, University of Arkansas for Medical Sciences
https://www.ncbi.nlm.nih.gov/pubmed/29714606	
Breakfast Is Brain Food? The Effect on Grade Point Average of a Rural Group	University of Minnesota Clinical and Translational Science Institute
Randomized Program to Promote School Breakfast*	
https://www.ncbi.nlm.nih.gov/pubmed/31257605	
Suboptimal geographic accessibility to comprehensive HIV care in	Virginia Commonwealth University
the US: regional and urban-rural differences	
https://www.ncbi.nlm.nih.gov/pubmed/31111684	Ver deshik Universite Medical Conten
HIV care provider perceptions and approaches to managing unhealthy alcohol use	Vanderbilt University Medical Center
in primary HIV care settings: a qualitative study https://www.ncbi.nlm.nih.gov/pubmed/31174601	
Rural Adult Perspectives on Impact of Hearing Loss and Barriers to Care.	University of Kentucky Physician-Mentored Student Research Fellowship
https://www.ncbi.nlm.nih.gov/pubmed/30949965	Oniversity of Rentucky Physician-Mentored Student Research Fenowship
Effectiveness of Ambulatory Telemedicine Care in Older Adults: A Systematic	Dartmouth Clinical and Translational Science Institute
Review	Dartmouth emiliar and Translational Science institute
https://wwws.ncbi.nlm.nih.gov/pubmed/31066016	
Physician Trust and Home Remedy Use Among Low-Income Blacks and Whites	Penn State Clinical and Translational Science Institute
with Hypertension: Findings from the TRUST Study.	
https://www.ncbi.nlm.nih.gov/pubmed/30915684	
Rural-urban disparities in health care costs and health service utilization following	National Center for Advancing Translational Sciences,
pediatric mild traumatic brain injury	
https://www.ncbi.nlm.nih.gov/pubmed/30507042	
Prevalence of Sarcopenia Obesity in Patients Treated at	The Dartmouth Clinical and Translational Science Institute
a Rural, Multidisciplinary Weight and Wellness Center	
https://www.ncbi.nlm.nih.gov/pubmed/31384133	

Turning Science Into Health





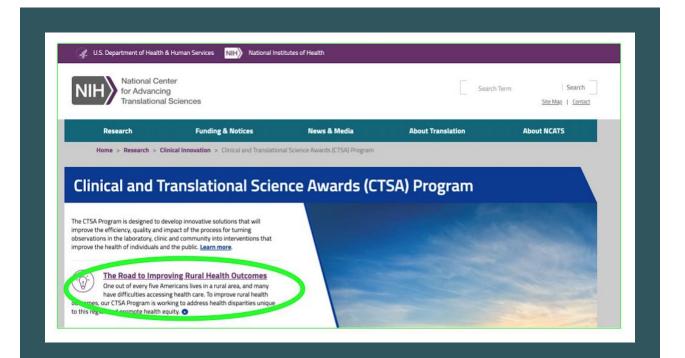
NCAT mission

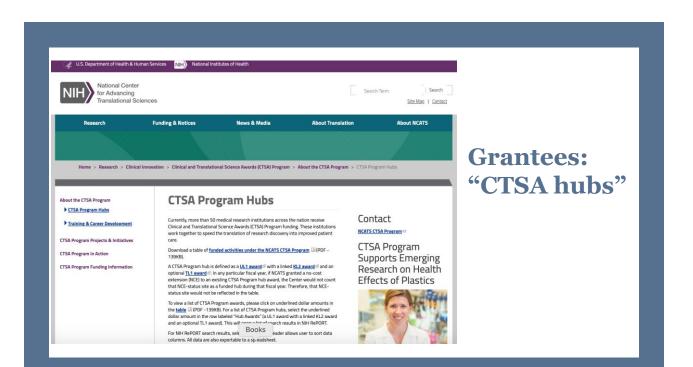
- The 3 "Ds"
 - Develop science
 - Demonstrate science
 - Disseminate science

NCATS logo



Key Activity: Patient Involvement







Clinical and Translational Science Awards Program

NCATS' Clinical and Translational Science Awards (CTSA) Program provides critical resources and support needed to strengthen the entire spectrum of our nation's clinical and translational research enterprise. CTSA Program biomedical research institutions — called "hubs" — provide core resources, essential mentoring and training, and opportunities to develop innovative approaches and technologies designed to re-engineer existing capabilities. Program support and tollaborative initiatives harmonize efforts, foster collaboration and strengthen this network to improve the quality, safety, efficiency and speed of clinical and translational research nationally.

CTSA Program Goals

- Train and cultivate the translational science workforce:
- Engage patients and communities in every phase of the translational process;
- Promote the integration of special and underserved populations in translational research across the human lifespan;
- Innovate processes to increase the quality and efficiency of translational research, particularly of multisite trials; and
- · Advance the use of cutting-edge informatics.





"Engage patients and communities in every phase of the translational process."

CTSA Program Hubs Collaborate to Assess Community Engagement

Community engagement is a crucial feature of successful translational research. Community members are the ultimate beneficiaries of research results, and when they have a voice in the research process, outcomes are more relevant to their needs and more readily adopted. However, the effectiveness of community engagement efforts can be difficult to measure, and better evaluation methods and tools are needed.

Recognizing these challenges, investigators at the University of Rochester, an NCATS <u>Clinical and Translational Science Awards (CTSA)</u> <u>Program</u> hub, launched a pilot study to develop and test a community engagement assessment process. The goal is to help academic health centers evaluate and enhance their engagement activities, which in turn will improve the translation of research results into real-world practice.

Seven other CTSA Program hubs participated in the pilot study, and all eight institutions are using the results to improve their engagement efforts. Learn more about the assessment tool @.

Posted May 2018

Community Engagement Programs

Language Differences

atv members are the ultimate

beneficiaries of research. (Daniel Soñé

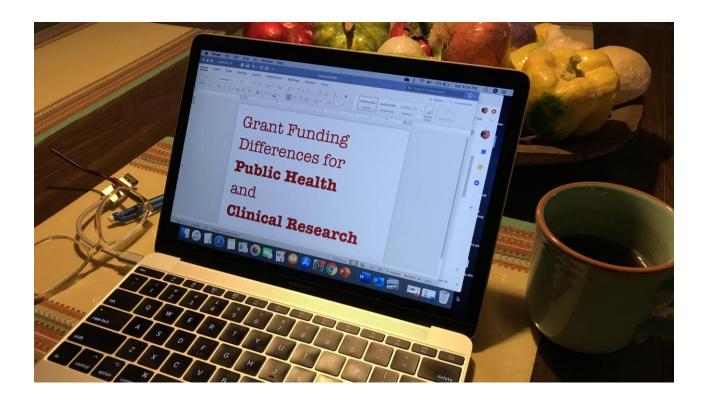
Photography, LLC)



 Image: construction of the second of the

NCATS Activities

Public Health Core Activities







Rural Health Focus of CTSA Program

Michael G Kurilla, MD, PhD Director, Division of Clinical Innovation, NCATS March 2020



NCATS Mission



To catalyze the generation of innovative methods and technologies that will enhance the development, testing and implementation of diagnostics and therapeutics across a wide range of human diseases and conditions.

Division of Clinical Innovation Clinical and Translational Science Awards (CTSA) Program



Mike Kurilla, M.D., Ph.D. Director <u>michael.kurilla@nih.gov</u>

- Collaboratively facilitates and accelerates translational projects locally/regionally/nationally
- Scientific and operational innovation to improve the efficiency and effectiveness of clinical translational research
- Creates, provides, and disseminates domain-specific translational science training
- Fosters creation of an academic discipline of translational science



CTSA Program Goal - Promote the integration of special and underserved populations in translational research across the human lifespan

Community Engagement Core



Community Health Coalition Development Program





Community Scientist Academy





WWAMI Network





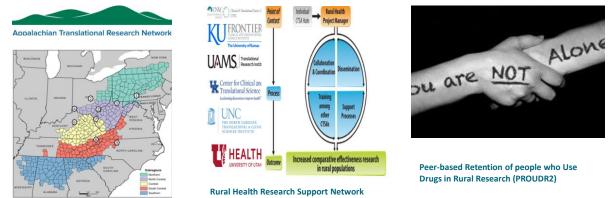


CTSA Program – Special Focus

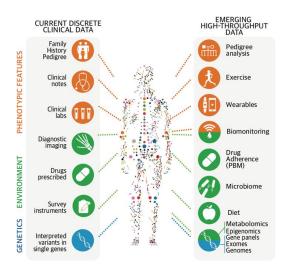
Notice of Information: NCATS Clinical and Translational Science Awards (CTSA) Program's Interest in Improving Rural Health Outcomes and Eliminating Health Disparities

Notice Number: NOT-TR-19-015 Key Dates

Key Dates Release Date:January 28, 2019



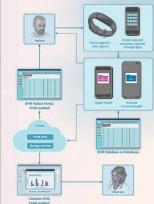
Informatics: Clinical Data to Health (CD2H) Accelerating innovation in informatics to improve clinical care



Clinical informatics

- Developing EHR systems, clinical standard terminologies, clinical data warehouses and common data models
- Bioinformatics
 - Translating genomic, proteomic and other -omic data
- Research Information Technology
 - Developing enterprise platforms for electronic data capture, cohort discovery, clinical trials management and secure computing environments





Mobile Devices and Health

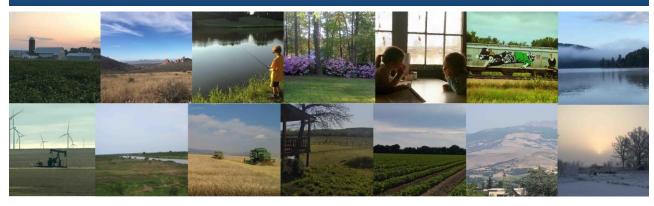


"At its peak, over 15,000 people (Parkinson Disease) from all 50 states signed up to engage in our research," "And they did it on their own terms using their own devices." -Dr. Ray Dorsey from University of Rochester Medical Center CTSA.

Ida Sim, M.D., Ph.D. N ENGL J MED 381;10 NEJM.org September 5, 2019

An Un-Meeting on Rural Health and Health Equity

April 8, 2019 | Gainesville, FL



Hosted and Supported by:







Supported by CLIC (NCATS U24TR002260), the UF CTSI (supported in part by NCATS CTSA UL1TR001427), and UF/IFAS. Complimentary admission to Sweat Solution exhibit provided by the Cade Museum. Content of event materials is solely the responsibility of the organizers and does not necessarily represent the official views of event sponsors.





Supporting a Diverse Workforce Focused on Rural Health Disparities

- University of Alabama at Birmingham (UAB) CTSA Program hub partners with the Department of Community and Rural Medicine and the Institute for Rural Health Research at the College of Community Health Sciences, University of Alabama:
 - Serves as a resource for researchers, individuals and organizations working to improve the health of rural communities
 - Dr. Mercedes Morales-Alemán, PhD, Assistant Professor, supported through a diversity supplement from the CTSA Program through UAB, conducts research on better understanding the multi-level factors that underlie health disparities in adolescent Latinas in the United States South through a community-based participatory approach.



The Road to Improving Rural Health Outcomes



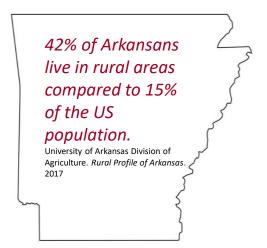
New: Rural Health Website

Leveraging a CTSA to Address Health Challenges in Rural Populations

March 31, 2020

Laura James, MD Associate Vice Chancellor for Clinical and Translational Research, UAMS PI, Clinical and Translational Research Award (CTSA)* Director, Translational Research Institute, UAMS *supported by UL1 TR003107 from the National Center for Advancing Translational Sciences

Background



Unique Health Characteristics of Rural Populations

- Higher rates of hypertension and obesity
- Higher rates of smoking
- Lower rates of physical activity
- Reduced access to primary care and specialty physicians
- Lower rates of insurance
- Greater distrust of physicians
- Higher rates of poverty
- Greater numbers of motor vehicle crashes
- Higher rates of opioid overdoses

UAMS Translational Research Institute

Our Mission

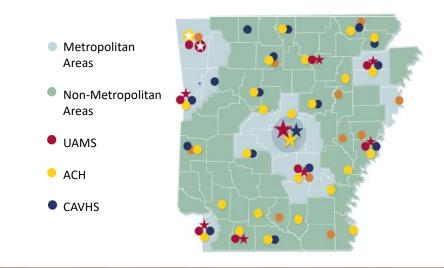
To develop new knowledge and novel approaches that will measurably address the complex health challenges of rural and under-represented populations.

Existing Strengths

- Strong community engagement core (COPH)
- National reputation in Implementation Science
- Strong background in special populations research (COPH, Pediatrics, UAMS-NW)
- Department of Biomedical Informatics (Prior, 2016)
- Department of Statistics
- Strong cross-college interactions

UAMS Translational Research Institute

Leveraging our Strengths in a state of 3 Million



Leveraging Institutional Strengths & CTSA Tools

.....to support our hub partners and other NIH programs

- UAMS Biomedical Informatics and Biostatistics
- Arkansas Research Central Data Repository AR-CDR
- ACH Epic launch November 2017
 - TRI (CTSA) leading ACH I2B2 implementation
- Adoption of smart IRB by Idea States Pediatric Clinical Trials Network (ISPCTN); 17-site pediatric network, a component of the ECHO program

UAMS Translational Research Institute



CE Services and Programs

- Staff the TRI Community Advisory Board (CAB)
- CE consultations
- Do's and Don'ts of Community Engagement Workshop
- Liaison with existing community partners
- Help with starting Community Advisory Boards (CABs)
- Community Review Boards (CRBs)
- Equipment Library
- Community Scientist Academy (CSA)
- Community grant reviewers
- Community Partner Celebration



UAMS Translational Research Institute

Expansion of Community Scientist Academy

- Launch in 2016
- Expansion to Veterans and High School Students (Photo Voice project)



STUDENT RESEARCH ENGAGEMENT:
Doctoral study on teen pregnancy
Community review board for IDeA States Pediatric Clinical Trials Network study

- One-day CSA for community organizations CPEARL Participants
- Successfully disseminated to Ohio State University CTSA



Community Review Board February 2020

CPEARL

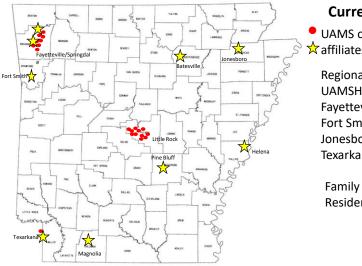


UAMS Translational Research Institute

Integrating Special Populations: Engaging Rural and Minority Participants in Translational Research

Pearl A. McElfish, PhD Integrating Special Populations Director, TRI Vice Chancellor for Northwest Arkansas Region





Expansion of Research Throughout Arkansas

Current Foundation

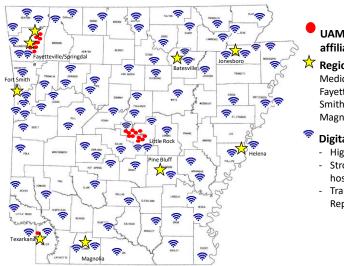
UAMS clinics and clinical
 Affiliates

Regional Campuses -UAMSHealth Batesville, Fayetteville/Springdale, Fort Smith, Helena, Jonesboro, Magnolia, Texarkana, and Pine Bluff

Family Practice Residency Programs

UAMS Translational Research Institute

Potential to Reach All of Rural Arkansas

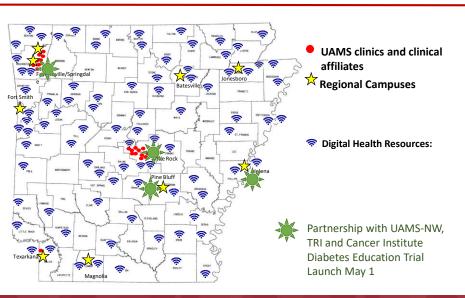


UAMS clinics and clinical affiliates

Regional Campuses – Family Medical Centers: Batesville, Fayetteville/Springdale, Fort Smith, Helena, Jonesboro, Magnolia and Pine Bluff

Digital Health Resources:

- High-risk pregnancy partners
- Stroke Program participating hospitals
- Trauma telemedicine (Image Repository, Hand, Burn)



Launch of Rural Research Network

UAMS Translational Research Institute

Recruitment

ry/ Provider itiate Contact (RA

Enrollment/Consent rticipant Contact Form (RA)

Randomize

t point of consent (RA) (1:1 treatment arms)

PRE-INTERVENTION

(CDE)

POST-INTERVENTION Data Collection (bio, survey, medication inventory)

6-MONTH POST-INTERVENTION

Data Collection (bio, survey, medication inventory) 12-MONTH POST-INTERVENTION

18-MONTH POST-INTERVENTION

Data Collection (bio, survey, media

d family member (RA) Data Collection (bio, survey, medication in INTERVENTION

(n=300)

Family-DSME

10 hours

inventory)

(n=300)

Con

Standard-DSME

10 hours

=600) clinic patients =600) family members Clinic #1 (n=150)

Clinic #2 (n=150)

Clinic #3 (n=150)

Clinic #4 (n=150)

Optional Clinic #5

In the past seven years, diabetes increased 24% from 11.2% to 13.9% of adults in Arkansas

"Comparative Effectiveness of Family DSMES and Standard DSMES among **Diverse Populations**"*

Participating Clinical Sites

- 1. UAMS South Central, Pine Bluff
- 2. UAMS East, Helena
- 3. UAMS Northwest, Fayetteville
- 4. UAMS Little Rock

*PCORI Contract; 1/1/2020 - 2/1/2024

Goals of Rural Research Network

- Leverage our state-wide clinical and telemedicine platform to engage special populations (Rural, Minority, Older Adults, Children)
- Create a Sustainable infrastructure with UAMS partners

Progress

- 1) Hired Director of Rural Research Network in December
- 2) PCORI McElfish launch May 1 4 sites
- 3) PCORI McElfish launch 2 sites Marshallese
- 4) Continue to layer research support throughout regional sites via federal funds



Questions?



Thank you!

- Contact us at <u>ruralhealthinfo.org</u> with any questions
- Please complete webinar survey
- Recording and transcript will be available on RHIhub website