Right Care, Right Time, Right Setting

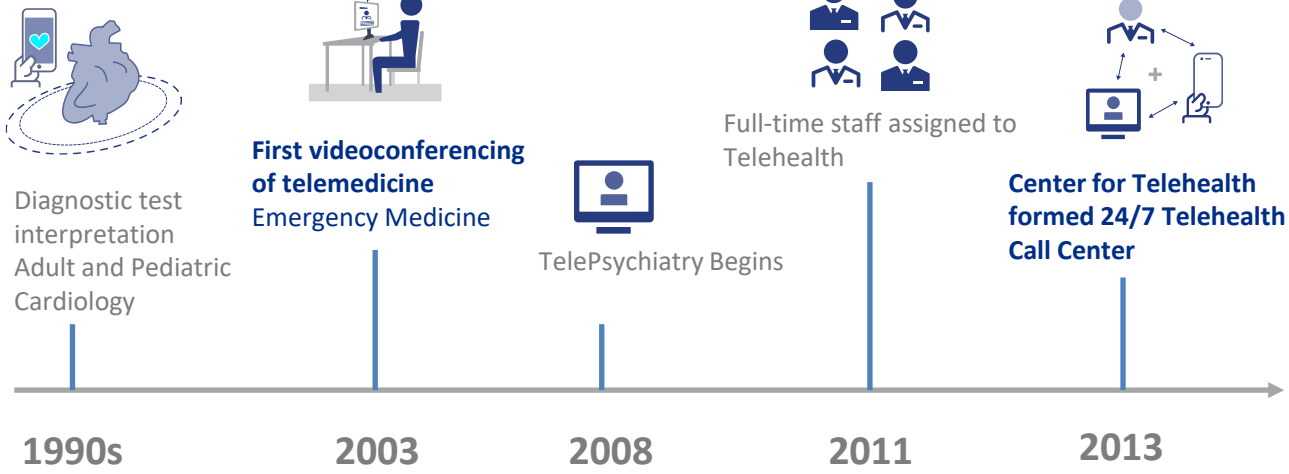
UNIVERSITY OF MISSISSIPPI MEDICAL CENTER

CENTER FOR TELEHEALTH

A National Telehealth Center of Excellence

The University of Mississippi Medical Center
Center for Telehealth

Center for Telehealth History



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Center for Telehealth History

2017 — Telehealth Center of Excellence awarded to UMMC

2020 — Rapid Response to COVID-19 Pandemic Integration of A/V capability in EMR

2021 — FCC Funding for rpm

2021 — Telehealth Center of Excellence awarded to UMMC

2022 — Preferred Telehealth Provider for State BCBS Members for Urgent Care, Behavioral Health and Medical Nutrition Therapy

2022 — RFP Awarded for School Based Telehealth

UMMC Center for Telehealth: A Snapshot

53 of Mississippi's 82 counties are more than a 40-minute drive from specialty care.
The CFT extends care by providing specialty services across multiple care settings.

SETTINGS SERVED

- Community Hospitals & Clinics
- Corporations
- Federally Qualified Health Centers (FQHCs)
- Mental Health Clinics
- Patient's Homes
- Prisons
- Schools & Colleges

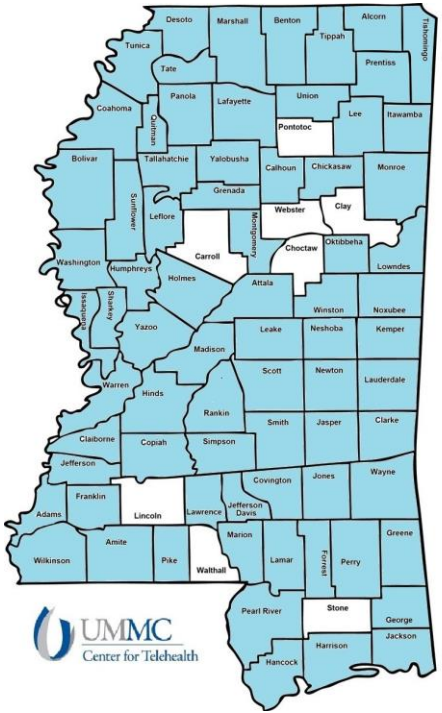
KEY SERVICES PROVIDED

Adult Services

- Dementia Care
- Cardiology
- Corporate Health
- Dermatology
- Infectious Dis.
- Mental Health
- Radiology
- Emer. Medicine

Pediatric Services

- Cardiology
- Child Development
- Child Safe Center
- Genetics
- Neurology
- Mental Health Services



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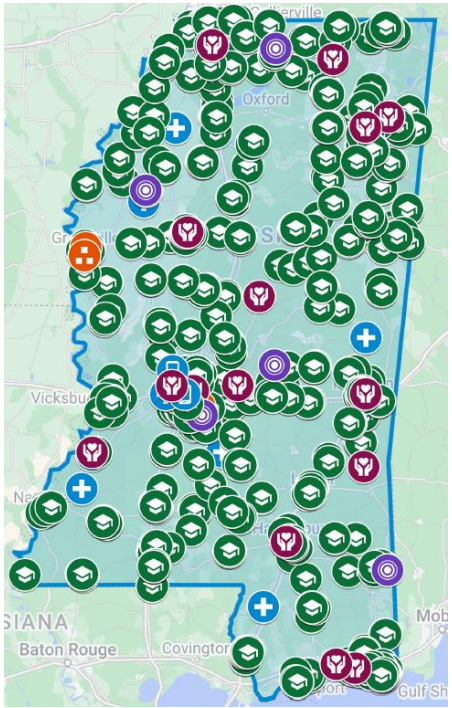
Virtual Care Network

By The Numbers

- **650+** : K-12 Schools
- **400,000+** : Students Covered
- **20** : Community Emergency Room Partners
- **13** : Mental Health Clinic Partners
- **2,900,000+** : 24/7 UMMC2You Urgent Care and Mental Health Coverage



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Telehealth Services

Ambulatory Telehealth

- UMMC Departments
- Remote Patient Monitoring
- Corporate Urgent Care
- Mental Health to Clinics

Direct to Consumer

- Urgent Care
- Mental Health
- BCBS

School Based Telehealth

- Urgent Care
- Mental Health

Virtual Hospital

- TelEmergency
- Tele-Critical Care
- Tele-Stroke
- Tele-Neurology

TelEmergency

25% reduction in rural emergency room staffing costs

20% reduction in unnecessary transfers

Produces patient outcomes in rural hospitals that are on par with those of the academic medical center

- Connects 20 emergency departments in rural hospitals with UMMC's Level One Trauma Center
- Uses real-time video and audio connections

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TeleUrgent Care - Direct 2 Consumer

Telehealth providers examine and treat patients remotely, in real time, using online streaming video technology via UMMC 2 U app.

- Fast, convenient minor medical care online
- Access to a board- certified UMMC provider via your smartphone, tablet or computer
- An alternative to taking off work and sitting in a waiting room to receive treatment for minor illnesses
- Same-day appointments, which typically take 15 minutes or less
- Appointments are available 24/7, 365 days a year.

TeleMental Health

The Center for Telehealth offers general and specialized psychiatric services provided by experienced mental health providers.

Delivery Models

- Outpatient, inpatient, scheduled and/or unscheduled
- All age types: child, adolescent, adult, geriatric

Multiple Services

- Mental health evaluations
- Commitment evaluations/consultations
- Medication management
- Treatment for acute and chronic mental illnesses
- Assessment/management of age-related conditio

Types of Locations

- Hospitals
- Clinics
- Schools/ Universities
- Community Mental Health Centers
- Prisons/ Detention Centers

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Remote Patient Monitoring (RPM)

Chronic disease management in the patient's home including:

Acquisition of data from devices	**Daily monitoring**	Review of Data by clinical team
Daily Health Sessions	**Behavior Modification**	Practice of EBM

Patient Centered Diabetes Care: Using Technology to Empower Patients

Tearsanee Davis, DNP, FNP-BC (PI), Sheila Keller, PhD, William Replogle, PhD, Kim Hoover, PhD, RN

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Abstract

PURPOSE: The purpose of this poster is to demonstrate how the UMMC Center for Telehealth is addressing health disparities such as diabetes and improving patient outcomes.

METHODS: Mississippi Diabetes Telehealth Network was formed to demonstrate how a new clinical care delivery model would affect outcomes of uncontrolled diabetics in the Mississippi. By way of a multidisciplinary team, health care resources were delivered to the participants in rural communities using interactive technology solutions.

CONCLUSIONS: N=115 completed the study. There was a significant change in HBgA1c after 3 months on the program. HgbA1c measurements remained consistent after 3 months.

Background

- The "MS Diabetes Healthcare Network Initiative" is focused on one of Mississippi's most burdensome health challenges: Diabetes.
- Mississippi continues to rank in the top two for highest prevalence of Diabetes in the nation.
- This pilot project on delivery of a coordinated approach to diabetes management where specialty Diabetes physician services, pharmacy Medication Therapy Management (MTM) services, and ophthalmology exams to screen for diabetic retinopathy via telemedicine to underserved areas.
- In 2012, diabetic medical expenses in Mississippi totaled $2.74 billion, according to the American Diabetes Association.
- This program focused on empowering diabetics to take control of their health by providing specialized care in rural Mississippi.

Methodology

Purpose: To initiate a multidisciplinary team approach, using technology, to empower patients to better manage their diabetes

Design: Longitudinal (12 months), quasi-experimental

- Inclusion Criteria
  - HbA1c ≥ 7
  - Age ≥ 18
- Rolling enrollment resulted in > 2-year study period
- Outcomes:
  - Primary: HbA1c
  - Secondary: BP, cholesterol, LDL, HDL, triglycerides, # ER visits & # hospital admissions
- Measurements at baseline and quarterly

Goal: Reduce HbA1c by 1% or greater

Methods:

- ADA guidelines followed for all patients
- All patients received an electronic tablet, glucometers & blood glucose strips
- Patients were to complete daily health sessions that included diabetes self management education, biometric measurement and allowed for feedback.
- RN Care coordinators monitored data and communicated with patients as needed.
- RN Care coordinators communicated with primary care providers and coordinated specialty care as needed.
- Specialty care was provided via telehealth when appropriate.

Tools

Daily Health Sessions	Personalized Interventions
Targeted Education	Health Coach
Behavior Modification	Patient Empowerment

Preliminary Results

Preliminary study results of the first 100 patients enrolled in the Mississippi Diabetes Telehealth Network Project.

HbA1c Average Decrease 1.7%	Medication Compliance 96%	Health Session Compliance 83%
Retinopathy Found 9 cases	Total? Weight Loss 71 pounds	Total Miles Saved 9,454.11

No Hospitalizations or ER visits for DM

Final Results

HbA1c mean values of five study time-points*

N		Mean % (SD)
Baseline**	115	9.5 (2.0)
3-months	112	7.7 (1.3)
6-months	112	7.8 (1.3
9-months	88	7.9 (1.4)
12-months	94	7.9 (1.4)

* p<.001

** Pairwise comparisons indicated that the baseline mean A1c was significantly (p<.001) greater than each of the four subsequent mean A1c values, and no significant differences were found between mean values at 3, 6, 9 and 12 months.

Conclusions

The study did support the preliminary findings. There was a significant decrease in HbA1c after 3 months on the program. HbA1c measurements after the 3 month measurement did not demonstrate significant change. They were consistent.

Future research should include a larger sample, random assignment of treatment, measurement of patient and provider satisfaction, and an analysis of cost effectiveness.

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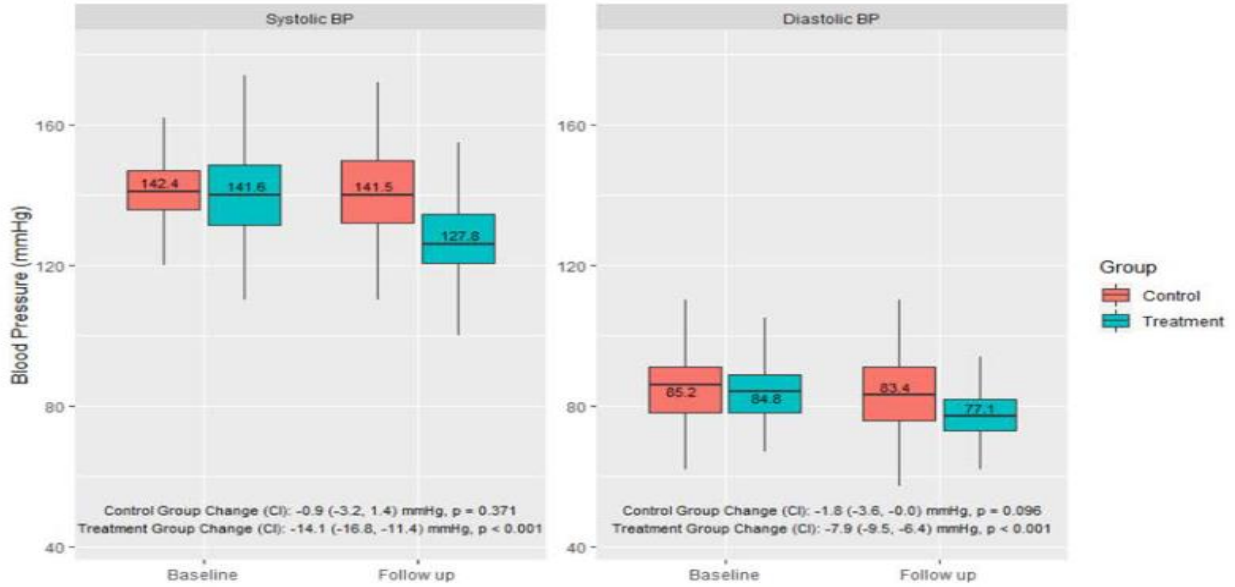
RPM Hypertension Study



Clark et al, Hypertension. 2021;78:1927–1929.

Social Drivers of Health (SDoH) and Telehealth

- Collect data directly from patients remotely
  - Nurses or Social Workers act on information provided
  - Connect to community resources
    - Food insecurity (Myrlie Wylie Evers Institute and other local food pantries)
    - Substance Use Disorder treatment centers
    - Utility payment assistance
    - Mental health programs
    - Housing Authority
    - Diaper and Formula Banks

School Based Telehealth Program

HEALTHY CHILDREN LEARN BETTER...

SCHOOL TELEHEALTH HELPS TO MAKE IT HAPPEN!!

UMMC Center for Telehealth

FNPs
PMHNPs
LPCs
Social Workers
Nurse Educators

Mississippi Department of Education

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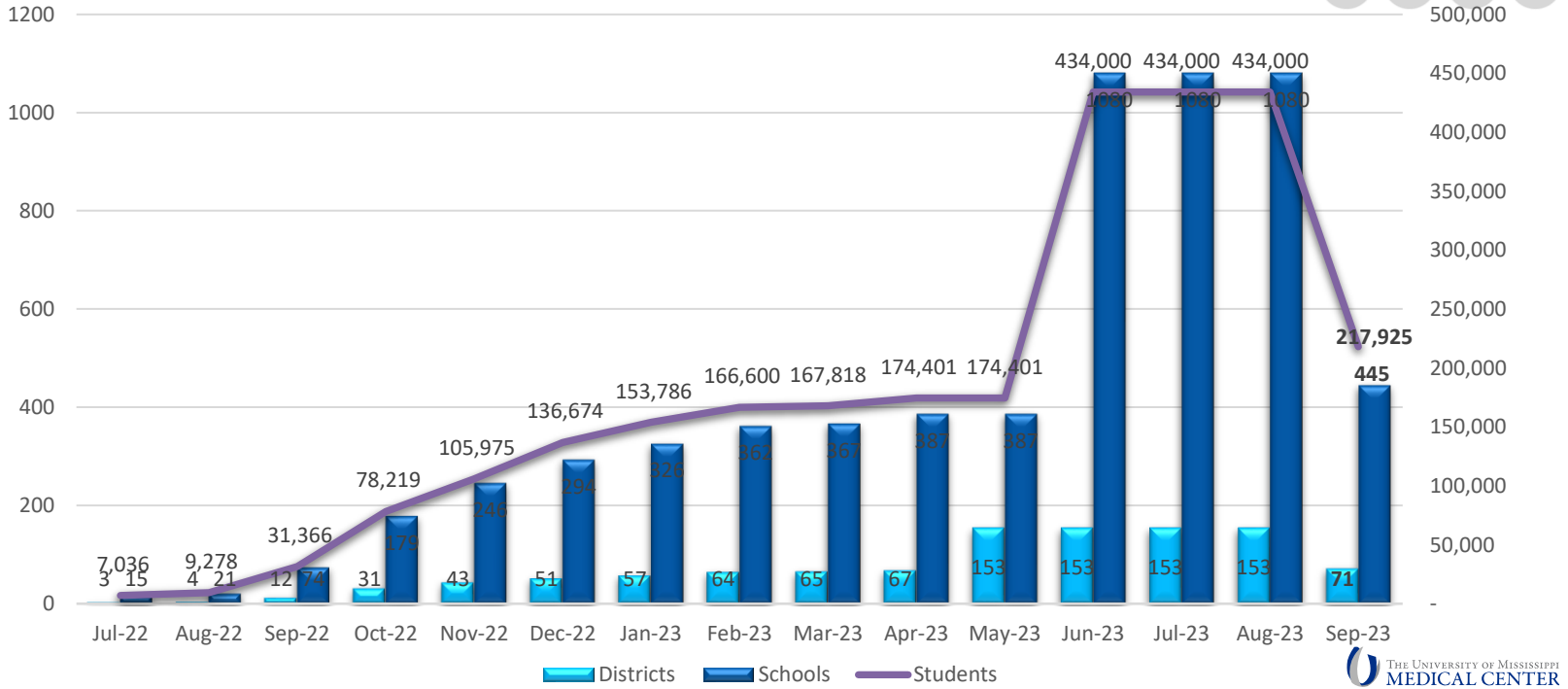
Current Enrollment Numbers



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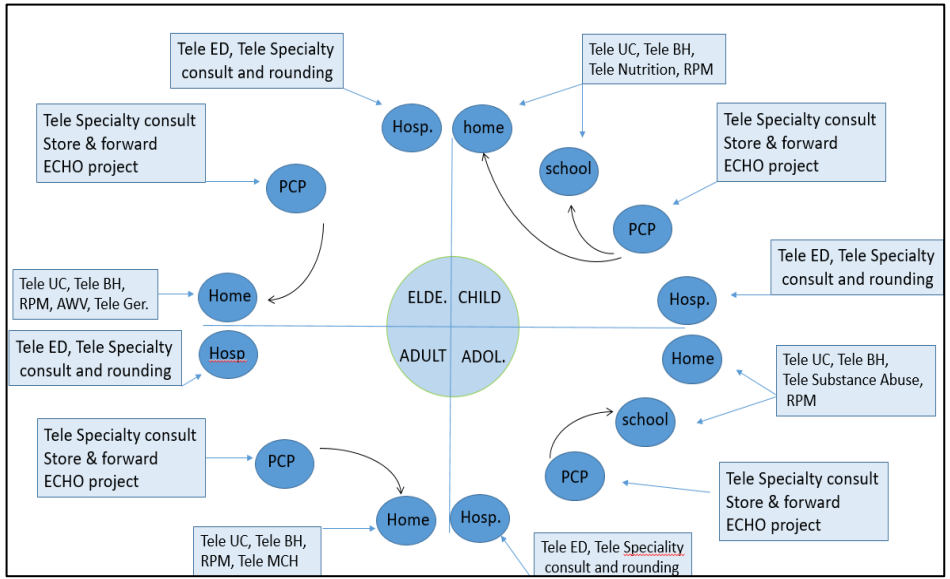
The Vision: Rural Healthcare Delivery Across Continuum of Care via Telehealth



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The Vision: Rural Healthcare Delivery Across Continuum of Care via Telehealth

Ambulatory Telehealth

- E-consults
- Remote Patient Monitoring –FQHCs / rural hospitals
- Mental Health to Rural Health Clinics

Novel Programs

- rpm platform
- Cardiac Rehab
- HIV / STI
- DPP
- Maternal Health
- Data Warehouse

School Based Telehealth

- Urgent Care
- Mental Health

Virtual Hospital

- Tele-Critical Care
- HIE and Interoperability

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Specialty Care Network

- Financial Distress
  - 31 At-risk Hospitals
  - Extend Specialty Care
  - Keep Patients and Revenue in Local Hospitals
  - Impact & Value to Community Hospitals

Critically Essential Rural Hospitals	
Bolivar Medical Center	Cleveland
Field Health System	Centreville
Franklin County Memorial Hospital	Meadville
Merit Health - Natchez	Natchez
UMMC Grenada	Grenada
Wayne General Hospital	Waynesboro
Moderately Essential Rural Hospitals	
Choctaw Health Center	Choctaw
Claiborne County Medical Center	Port Gibson
Gilmore Memorial Hospital	Amory
Lackey Memorial Hospital	Forest
Marion General Hospital	Columbia
North Mississippi Medical Center - Eupora	Eupora
North Mississippi Medical Center - West Point	West Point
North Sunflower Medical Center	Ruleville
Rush Foundation Hospital	Meridian
South Sunflower County Hospital	Indianola
Stone County Hospital	Wiggins
Tallahatchie Critical Access Hospital	Charleston
UMMC Holmes County	Lexington
Less Essential Rural Hospitals	
Baptist Medical Center - Leake	Carthage
Beacham Memorial Hospital	Magnolia
H.C. Watkins Memorial Hospital	Quitman
Highland Community Hospital	Picayune
Jefferson Davis Community Hospitals CAH	Prentiss
Laird Hospital	Union
Lawrence County Hospital	Monticello
North Mississippi Medical Center - Iuka	Iuka
North Mississippi Medical Center - Iuka	Pontotoc
Pearl River County Hospital	Poplarville
Trace Regional Hospital	Houston
Walthall County General Hospital CAH	Tylertown

Source: https://mississippitoday.org/2019/02/27/half-of-mississippis-rural-hospitals-at-risk-of-closing-report-says/

Inpatient Specialty Consults - Tele-Neurology

- Inpatient Neurology Service at SCRMC, Laurel MS
- Difficulty recruiting specialists
- Rounding facilitated by NPs
- 10-15 days / month

- Remote Neurologist at UMMC
- Access to EMR
- Access to PACS
- Block schedule

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Inpatient Specialty Consults - Tele-Critical Care (09/01/2023)

- **Inpatient Critical Care Service at Copiah, Greenwood Leflore MS**
- **24/7 Support**

- **Remote Critical Care Physician in New York/ UMMC**
- **Access to EMR**
- **Access to PACS**

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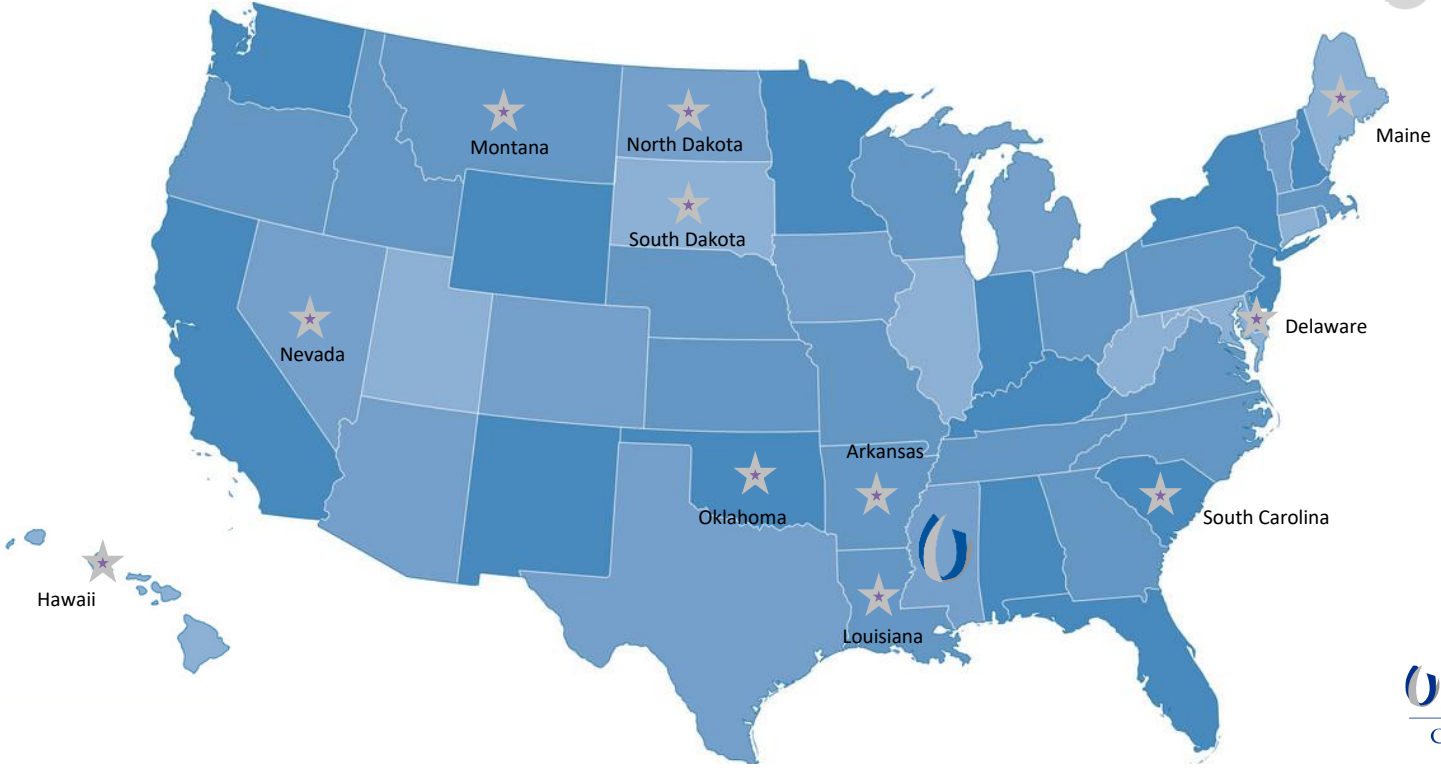
National Partnerships



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Questions?