Right Care, Right Time, Right Setting

Improving Rural Healthcare through Telehealth
January 26th, 2022

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Chief Telehealth Officer
Associate Professor,
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University of Mississippi Medical Center.

A National Telehealth Center of Excellence

The University of Mississippi Medical Center
Center for Telehealth

Disclosures

- I have no actual or potential conflict of interest in relation to this program/presentation.
- I have no relevant financial interest in any organizations related to commercial products or services discussed in this program.

Agenda

- Rural Health disparities
- Major factors contributing to health disparities
- Introduction to UMMC CFT
- Improving rural healthcare using Telehealth
- Q&A

What is Rural?

Depending on the definitions used, rural areas account for 72% to 97% of the total landmass of the United States and approximately 15-19% of the population.

- 2010 US Census Bureau: 19.3% of the population (59.5 million people) and 97% of the land area as rural.
- OMB decides which counties are metropolitan (urban), micropolitan (rural), or neither (rural): rural included 46.2 million people, about 15% of the population and covered 72% of the land area of the country.
- HRSA: Based on 2010 Census data, 19.7% of the population (60.8 million people) and 86% of the land area of the country are considered rural.

What is Rural?

https://www.ruralhealthinfo.org/am-i-rural

RHIhub
Rural Health Information Hub

Updates & Alerts | About RHIhub | Contact Us

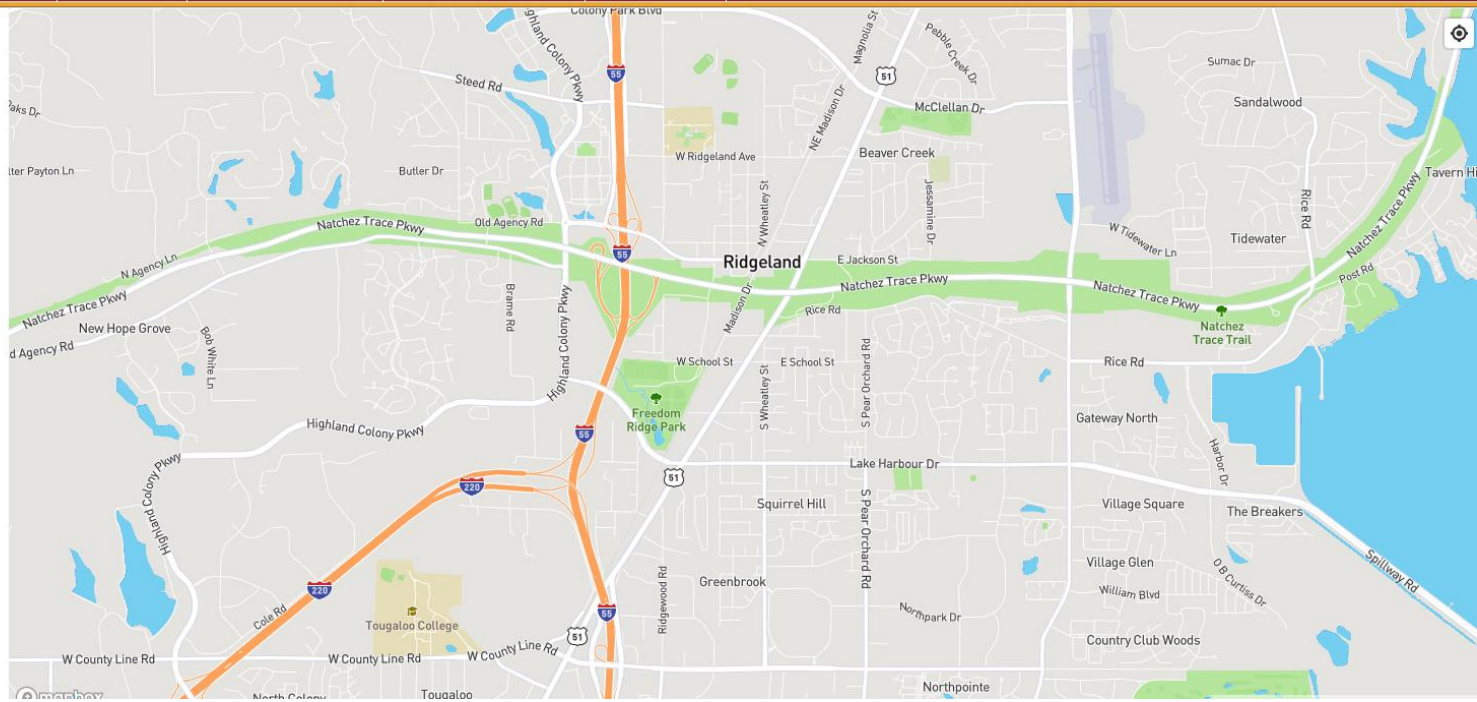
Online Library | Topics & States | Rural Data Visualizations | Case Studies & Conversations | Tools for Success

Am I Rural? – Tool Help

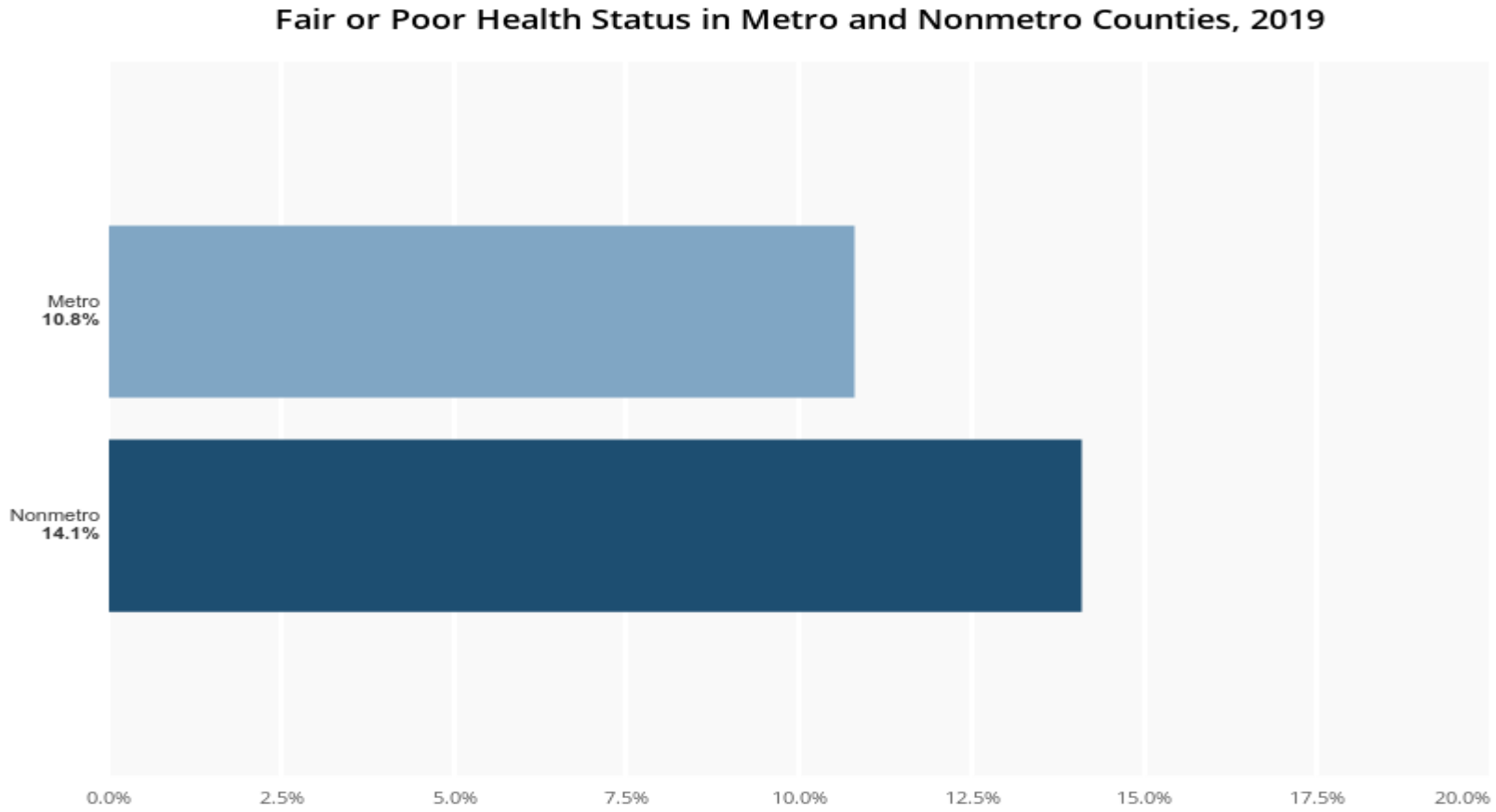
Enter address Locate

Determine whether your specific location is considered rural based on various definitions of rural, including definitions that are used as eligibility criteria for federal programs.

Using RHIhub's Am I Rural? Tool



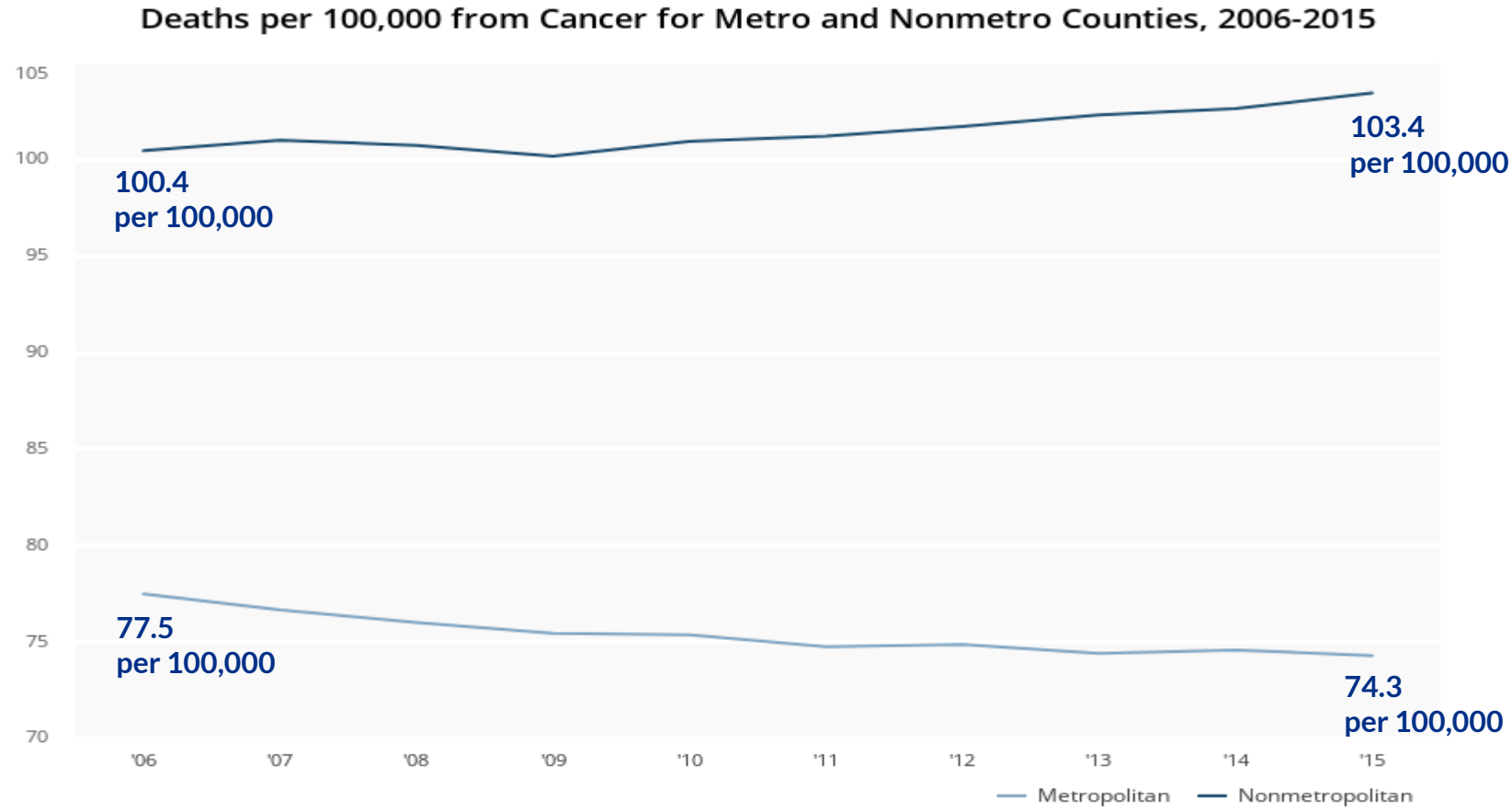
Health Status Comparison



RHIhub Rural Health Information Hub

Source: Health, United States, 2020 — National Center for Health Statistics.

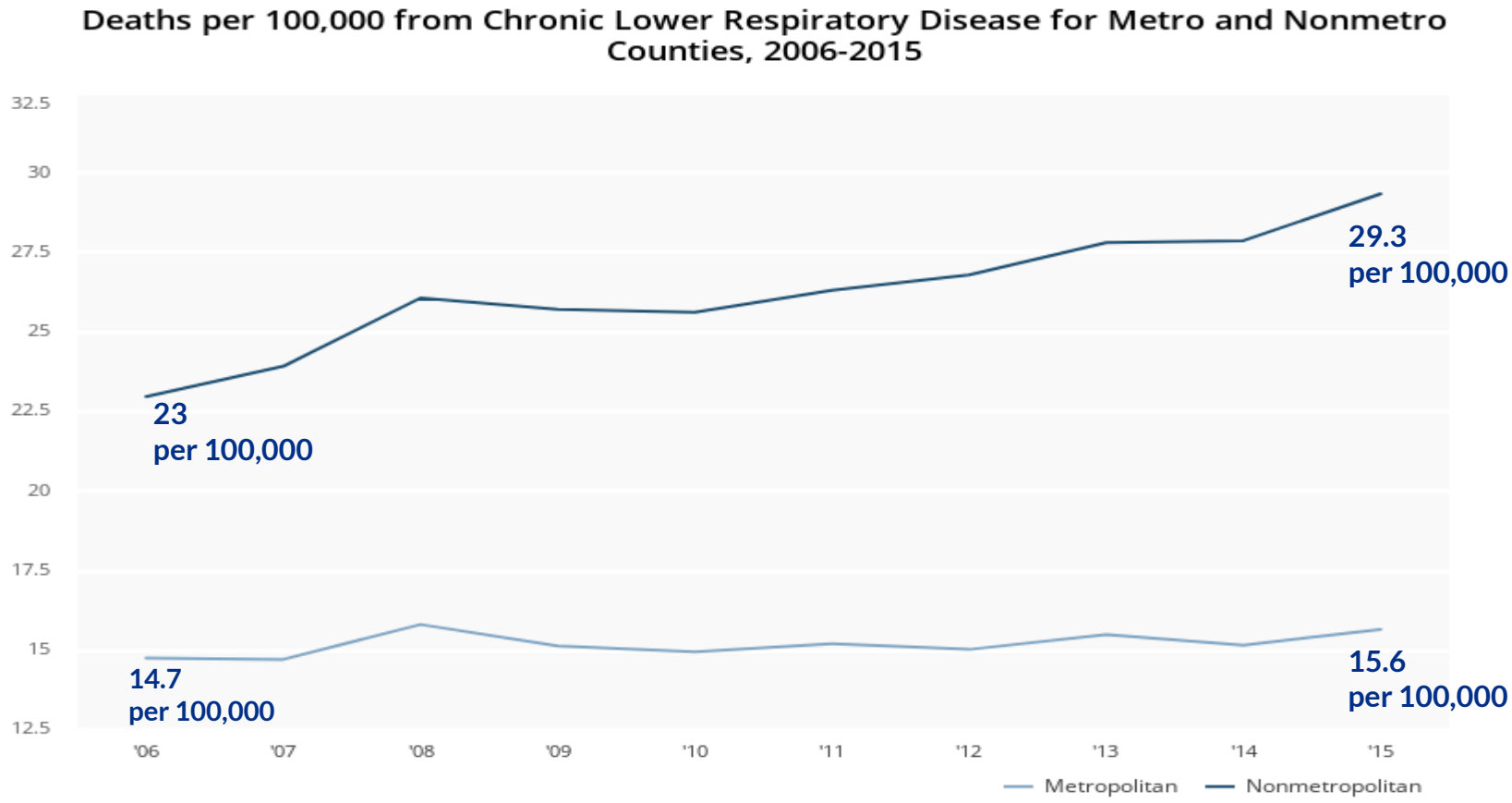
Rural Access Impact



RHIhub Rural Health Information Hub

Source: National Center for Health Statistics, 2006-2015.

Rural Access Impact



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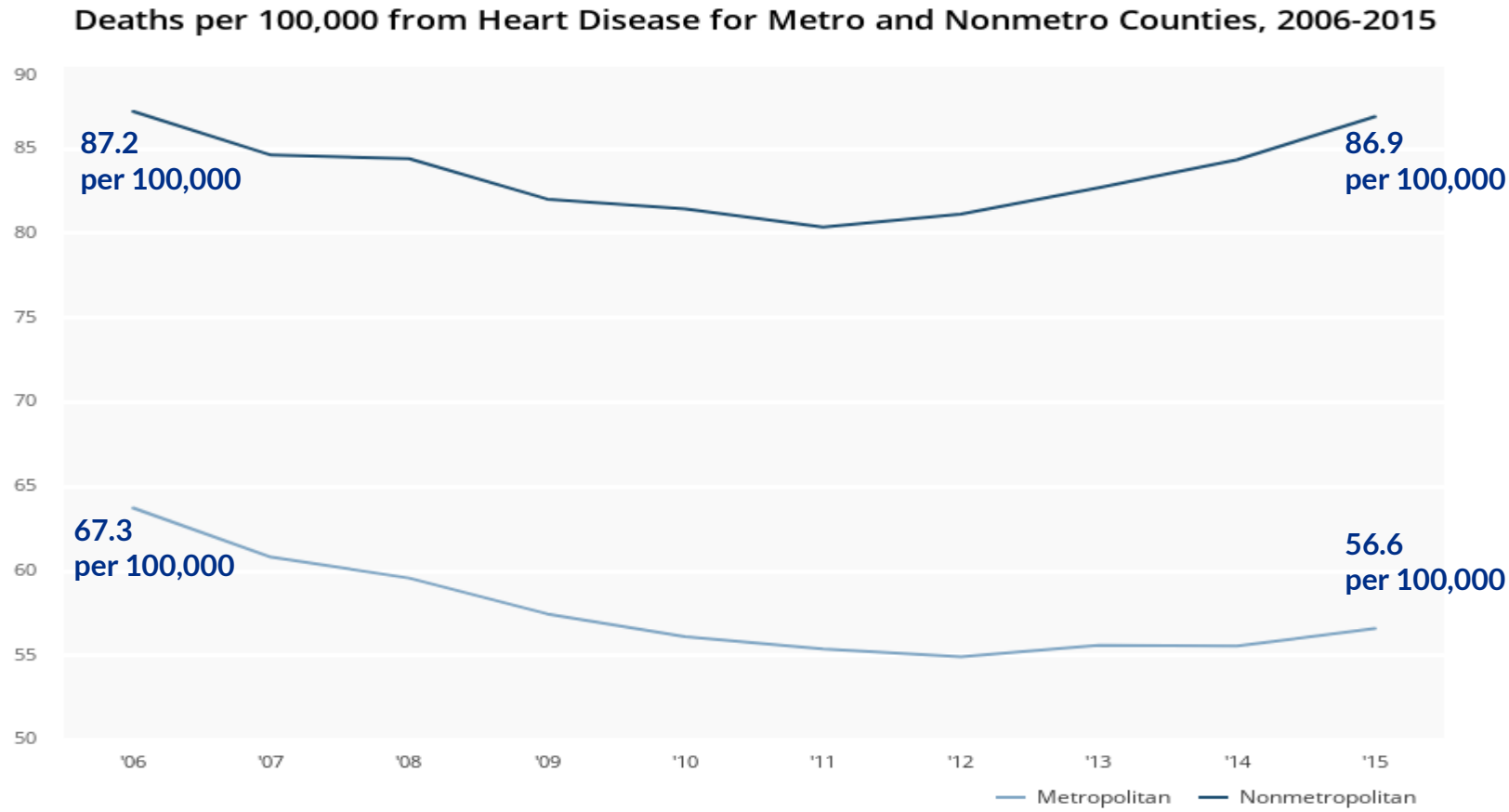
Source: National Center for Health Statistics, 2006-2015.

Rural Access Impact



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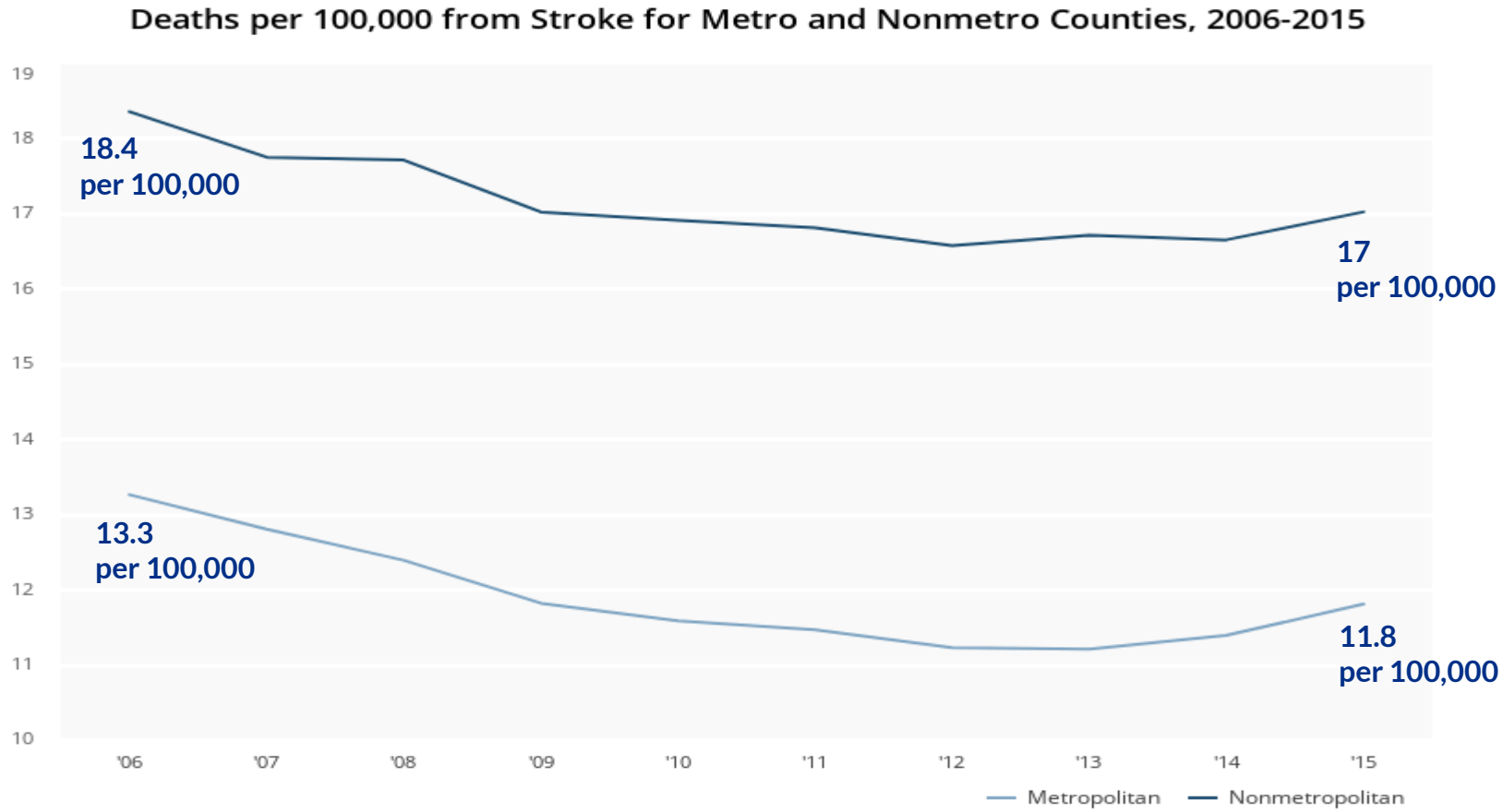
Rural Access Impact



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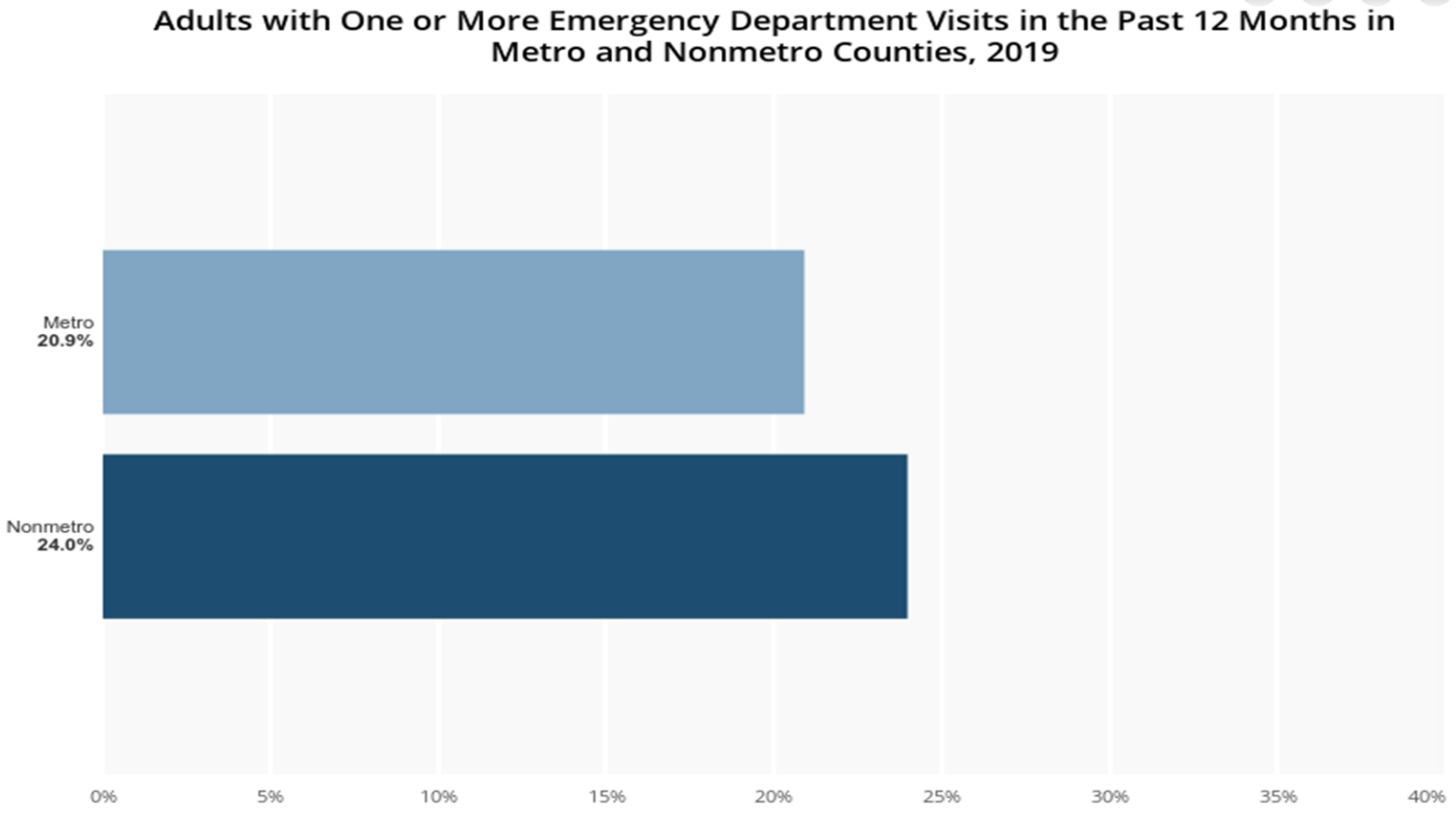

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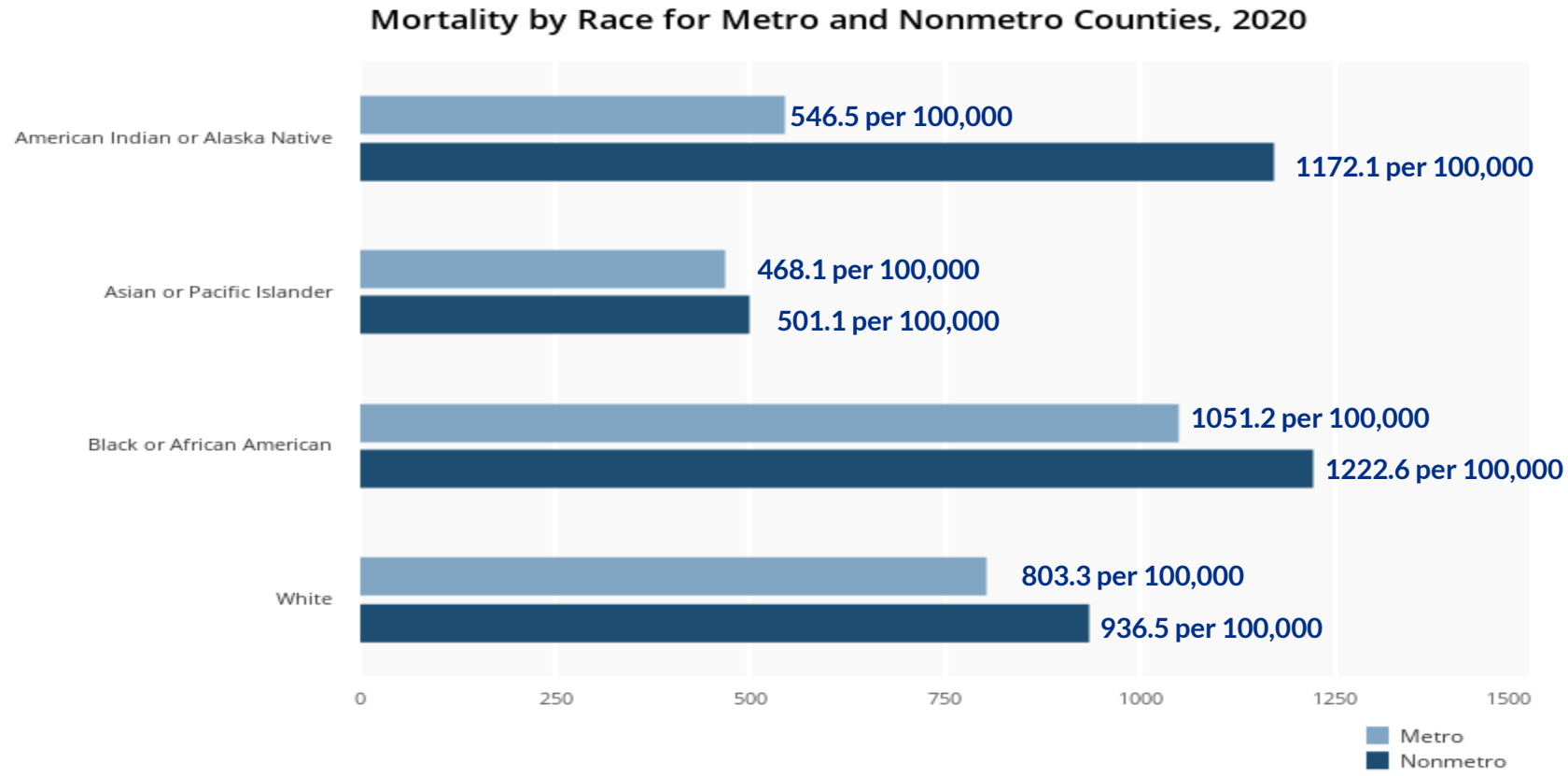
Rural Access Impact



RHIhub Rural Health Information Hub

Note: Racial groups may include people of Hispanic origin.
Source: CDC WONDER, 2020.

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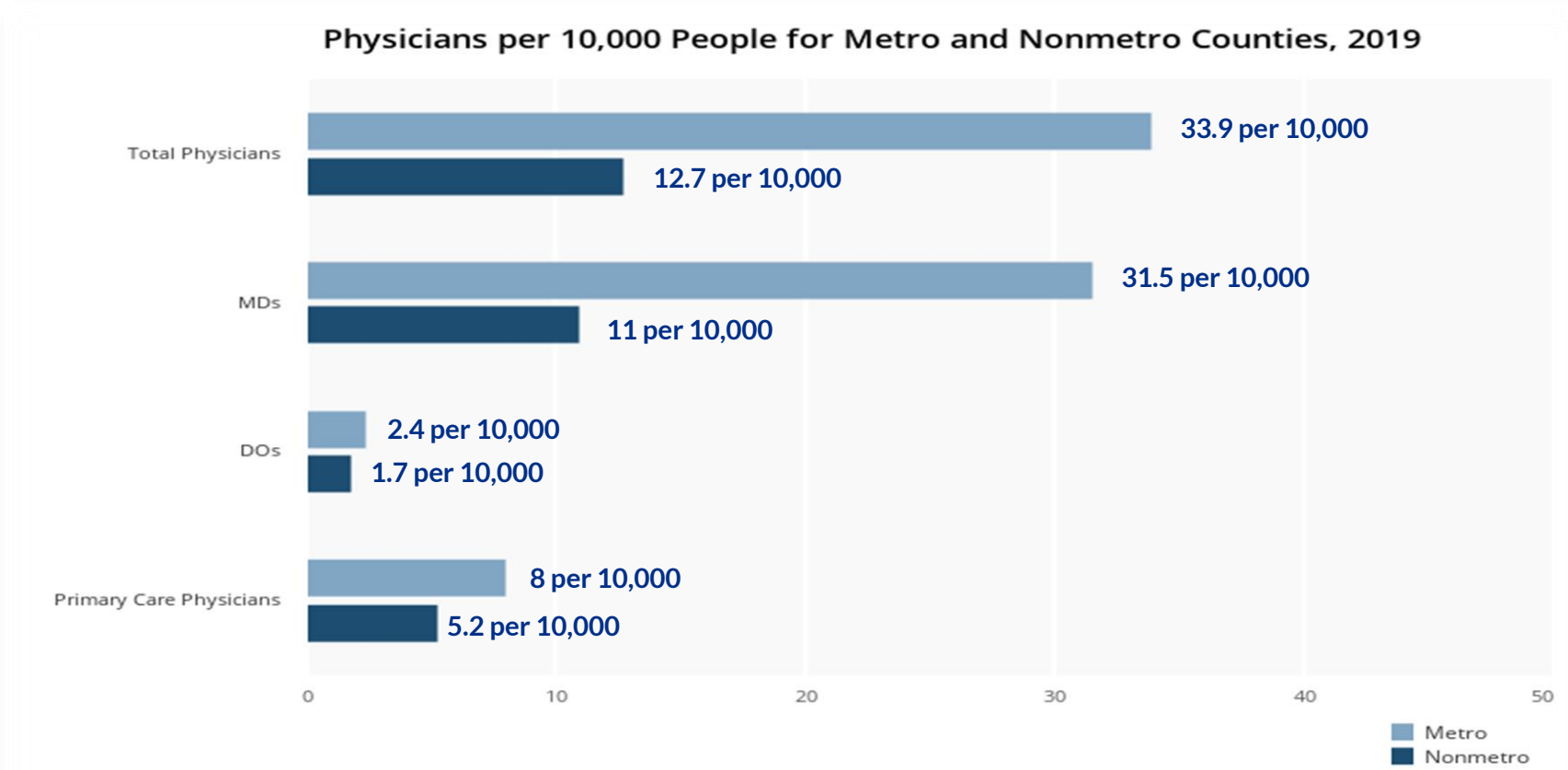
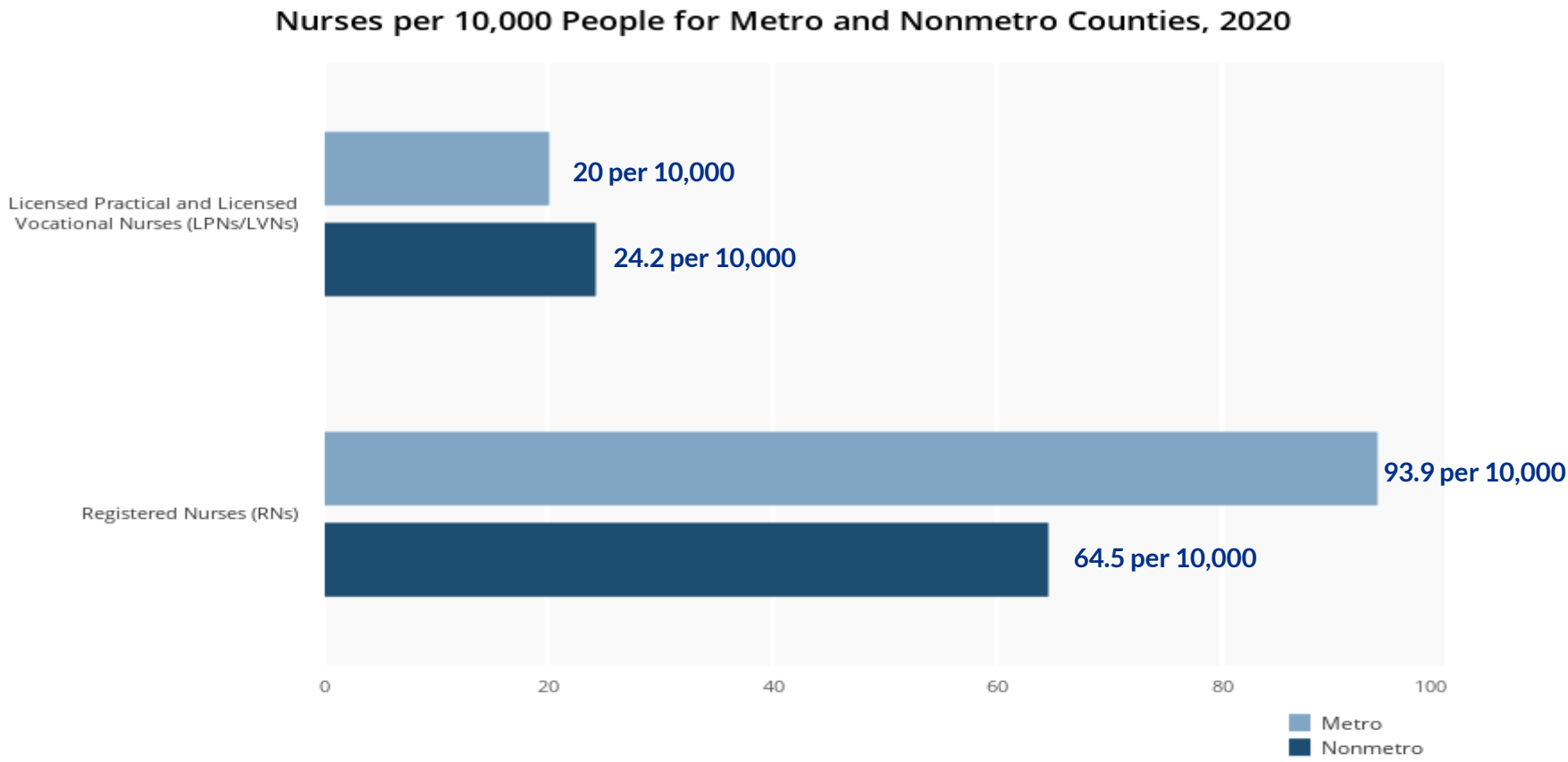
Barriers to Healthcare Access in Rural Areas

Workforce Shortage- Physicians



Note: Rates are calculated using US Census annual population estimates.
Source: HRSA Area Health Resources Files, 2020-2021.

Workforce Shortage- Nurses



RHIhub Rural Health Information Hub

Note: Rates are calculated using US Census annual population estimates.
Source: BLS Occupational Employment Statistics, 2020.

Limited access to specialty care is a major cause of inequity in healthcare

- More work for PCPs and staff
- Delayed care for patients
- More ER use
- Worse clinical outcomes

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Workforce Shortage- Access to Specialists

- According to NRHA- there are 30 specialists / 100,000 people in rural area compared with 263/ 100,000 people in urban areas.
- According to a study published in Health Affairs, Dec 2019, in Medicare beneficiaries with one or more complex chronic conditions, access to specialists accounted for 55 percent and 40 percent of the rural-urban difference in preventable hospitalizations (40% higher for rural) and mortality (23% higher), respectively.

Social determinants that are barriers for rural communities in accessing healthcare

- Higher poverty rates, which can make it difficult for participants to pay for services or programs
- Cultural and social norms surrounding health behaviors
- Low health literacy levels and incomplete perceptions of health
- Linguistic and educational disparities
- Limited affordable, reliable, or public transportation options
- Unpredictable work hours or unemployment
- Lower population densities for program economies of scale coverage
- Availability of resources to support personnel, use of facilities, and effective program operation
- Lack of access to healthy foods and physical activity options

https://www.ruralhealthinfo.org/toolkits/health-promotion/1/barriers

Travel Burden to Receive Health Care

Figure 1. Average Time Spent in Travel for Care, 2017[2]

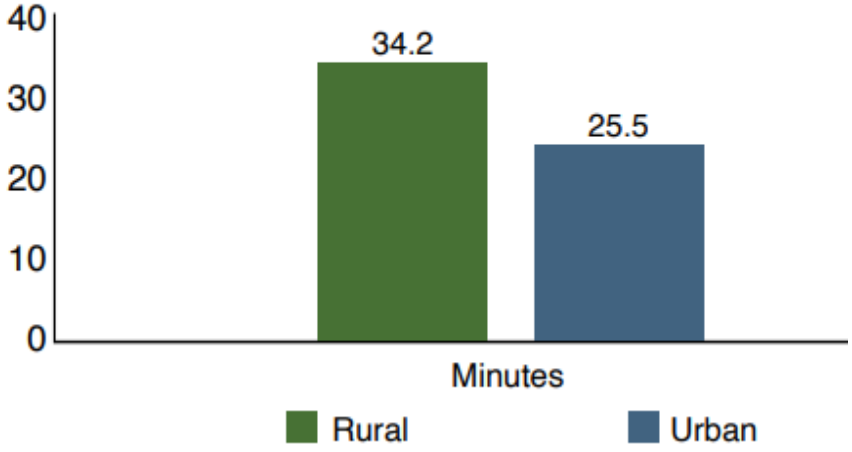
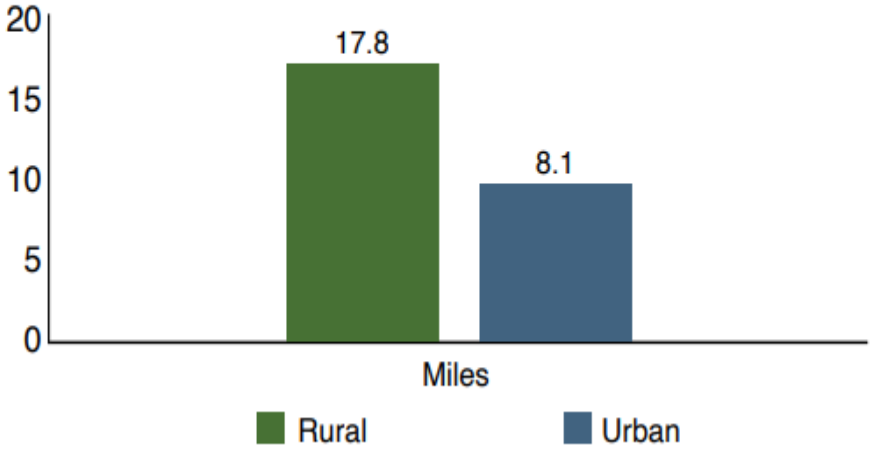


Figure 2. Average Distance Traveled for Care, 2017[2]



Authors: Per Ostmo, MPA & Jessica Rosencrans, BBA

Rural Health Research Gateway

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Rural Hospital Closures

- 141 Rural Hospital Closures since 2010
- 631 or 30% of all rural hospitals are at risk of closing in immediate (200 hospitals) or near future

UNC- Sheps Center
Becker's Hospital Review Nov 22

Introduction to the Center for Telehealth at UMMC

Center for Telehealth History

1990s

Diagnostic test interpretation Adult and Pediatric Cardiology

2003

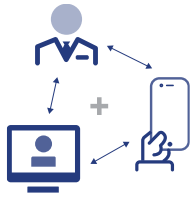
First videoconferencing of telemedicine
Emergency Medicine

2008

TelePsychiatry Begins

2011

Full-time staff assigned to Telehealth



2013

Center for Telehealth formed 24/7 Telehealth Call Center

Center for Telehealth History

2017 — Telehealth Center of Excellence awarded to UMMC (HRSA)

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 (HRSA)

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

2022 — RFP Awarded for School Based Telehealth (Mississippi Department of Education)

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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

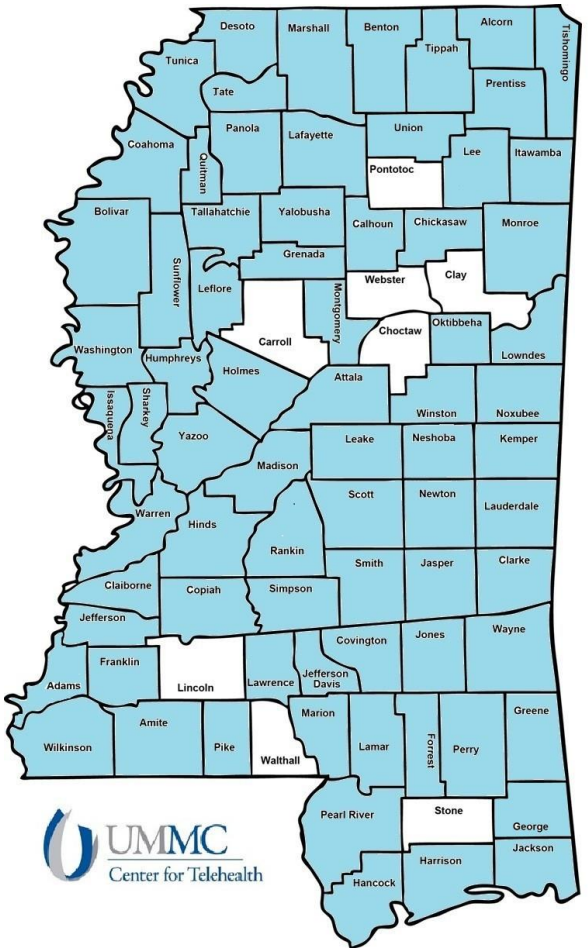
KEY SERVICES PROVIDED

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



UMMC Center for Telehealth: A Snapshot

Our imprint in the State Of Mississippi

Telehealth Services

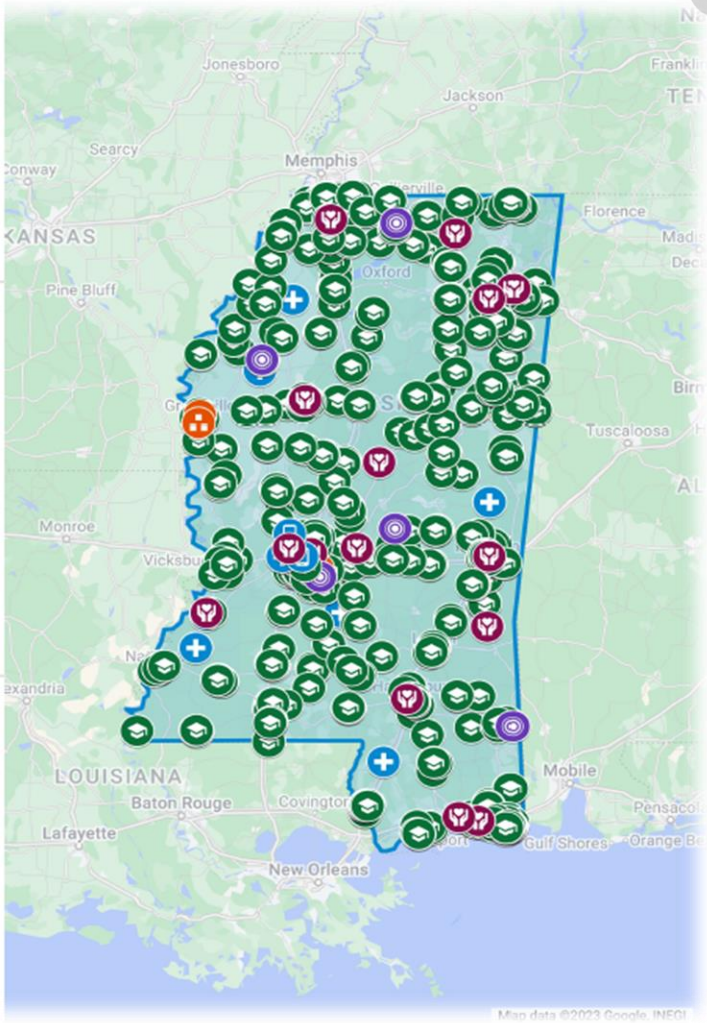
- School-Based Telehealth
- TelEmergency
- TeleMental Health
- TeleInfectious Disease
- TeleNetworking
- Corporate
- UMMC2You (State-wide)

By The Numbers

- 650+: K-12 Schools
- 400,000+: Students Covered
- 20: Community Emergency Room Partners
- 13: Mental Health Clinic Partners
- 3,000,000: 24/7 UMMC2You Urgent Care and Mental Health Coverage

Annual Savings for MS

- $547,560: K - 12 Schools
- $267,418: School Families
- $31,788,000: Community Emergency Rooms
- $147,756: Community Mental Health Partners
- $26,488: UMMC2You Patients



…and growing!

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Improving Access to Healthcare via A/V Telehealth

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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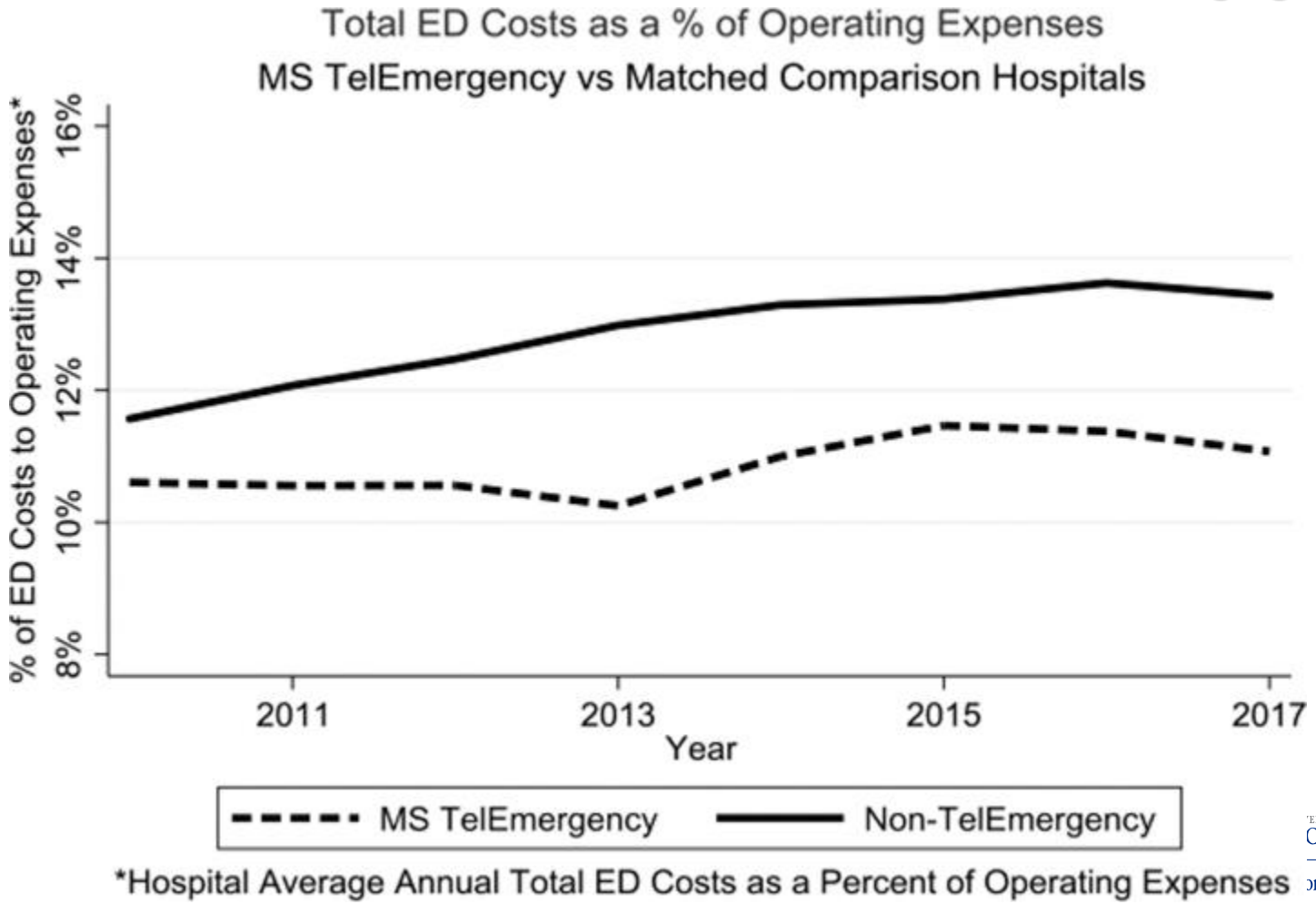
TelEmergency

University of Mississippi Medical Center TelEmergency Motives and Benefits

TELEMERGENCY			
MOTIVES	**BENEFITS**	**BARRIERS**	**SOLUTIONS**
1. Maintain or bolster access to ED care within rural communities	Local ED care remained in all communities using TelEmergency without a reduction in the volume of care provided.	Scope of NPs previously limited to physician oversight within 15 miles.	UMMC obtained a waiver of this requirement for TelEmergency from relevant MS oversight authorities.
2. Enhance quality of ED care provided within rural communities	Increased access to EM-trained, board-certified physicians and specially trained NPs.		
	Achieved a high-degree of satisfaction from patients and hospital administrators.[18]		
3. Stabilize financial performance at financially fragile rural MS hospitals	None of the hospitals using TelEmergency closed.	Historically, telehealth reimbursement was restrictive, particularly for ED care.	A 2013 MS state-level telehealth parity law expanded telehealth reimbursement across all payers.
a. Cut rural ED expenses (e.g., physician staffing, inventory management)	By coordinating ED care through the hub, fewer physicians were staffed.		
	The TelEmergency inventory protocols decreased unnecessary inventory held.		
b. Concerns for cuts to CAH reimbursement	Improving the profitability of one service line, emergency care, eases concerns for CAH reimbursement changes.		
4. Mitigate financial investment by UMMC to achieve prior objectives	Stabilizing access to ED care through TelEmergency was one reason UMMC did not have to make substantial capital investments to acquire those rural hospitals, which may have otherwise closed.		
	Led to better downstream population health management.		

CAH, critical access hospital; ED, emergency department; EM, emergency medicine; MS, Mississippi; NP, nurse practitioner; UMMC, University of Mississippi Medical Center.

TelEmergency



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Inpatient Specialty Consults - TeleNeurology

A/V Communication

- Inpatient Neurology Service at one rural hospital
- 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 - TeleNeurology

- Go-live was on Jan 18th
- Average inpatient consults 6-7 / day
- Feedback from bedside team on patient care provided is extremely positive
- Immediate ROI:
  1. Permitted the Inpatient Neurology service to continue at rural hospital
  2. Offset the difficulty in recruiting
  3. Prevented patients to be transferred

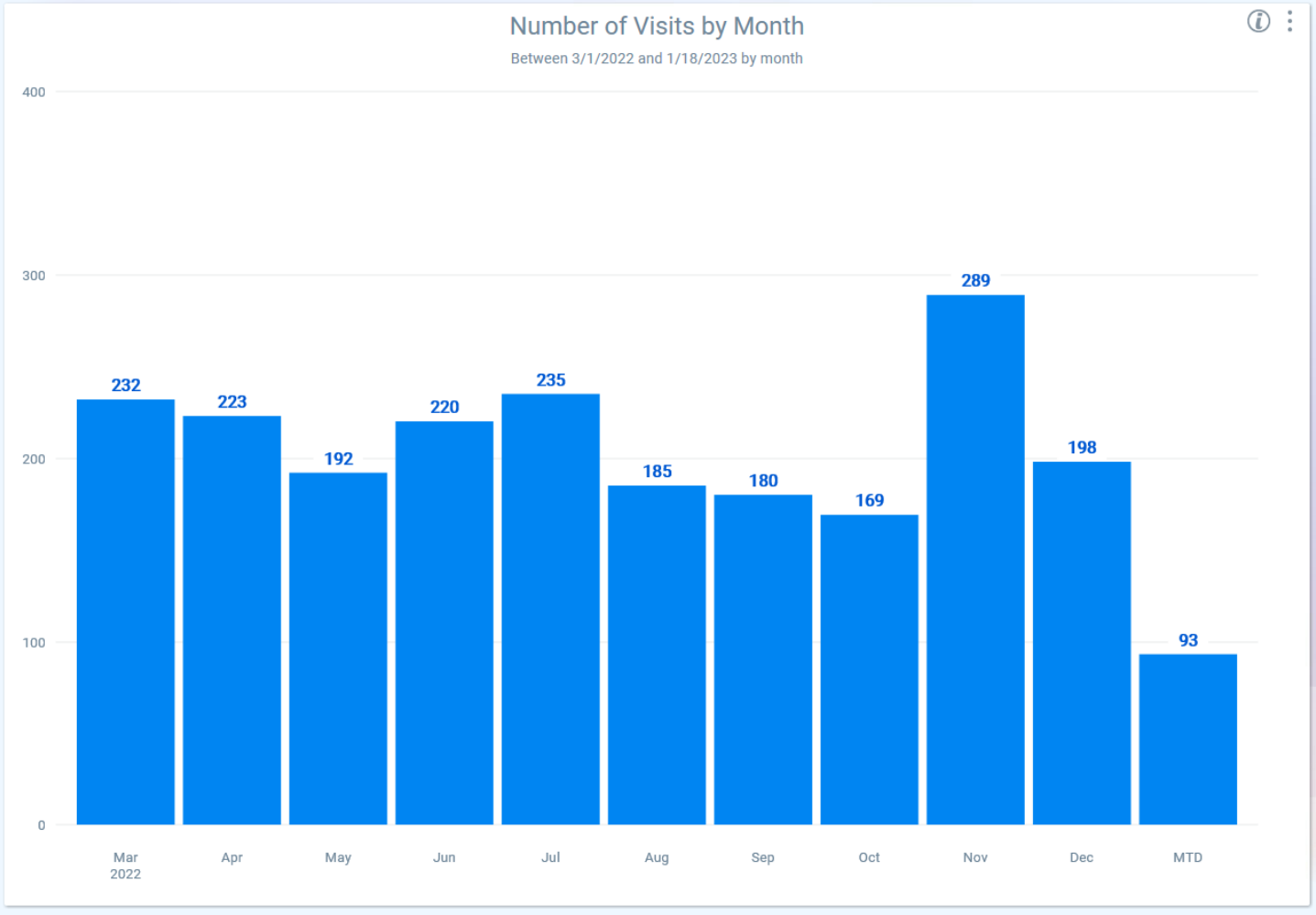
This project was made possible by the Health Resources and Services Administration (HRSA) of the US Department of Health and Human Services (HHS) as part of the National Telehealth Centers of Excellence Award U66RH31459. The contents are those of the author(s) and do not necessarily represent the official views of nor an endorsement by the HRSA, HHS or the US Government.

TeleUrgent Care - D2C

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.

Number of Visits by Month



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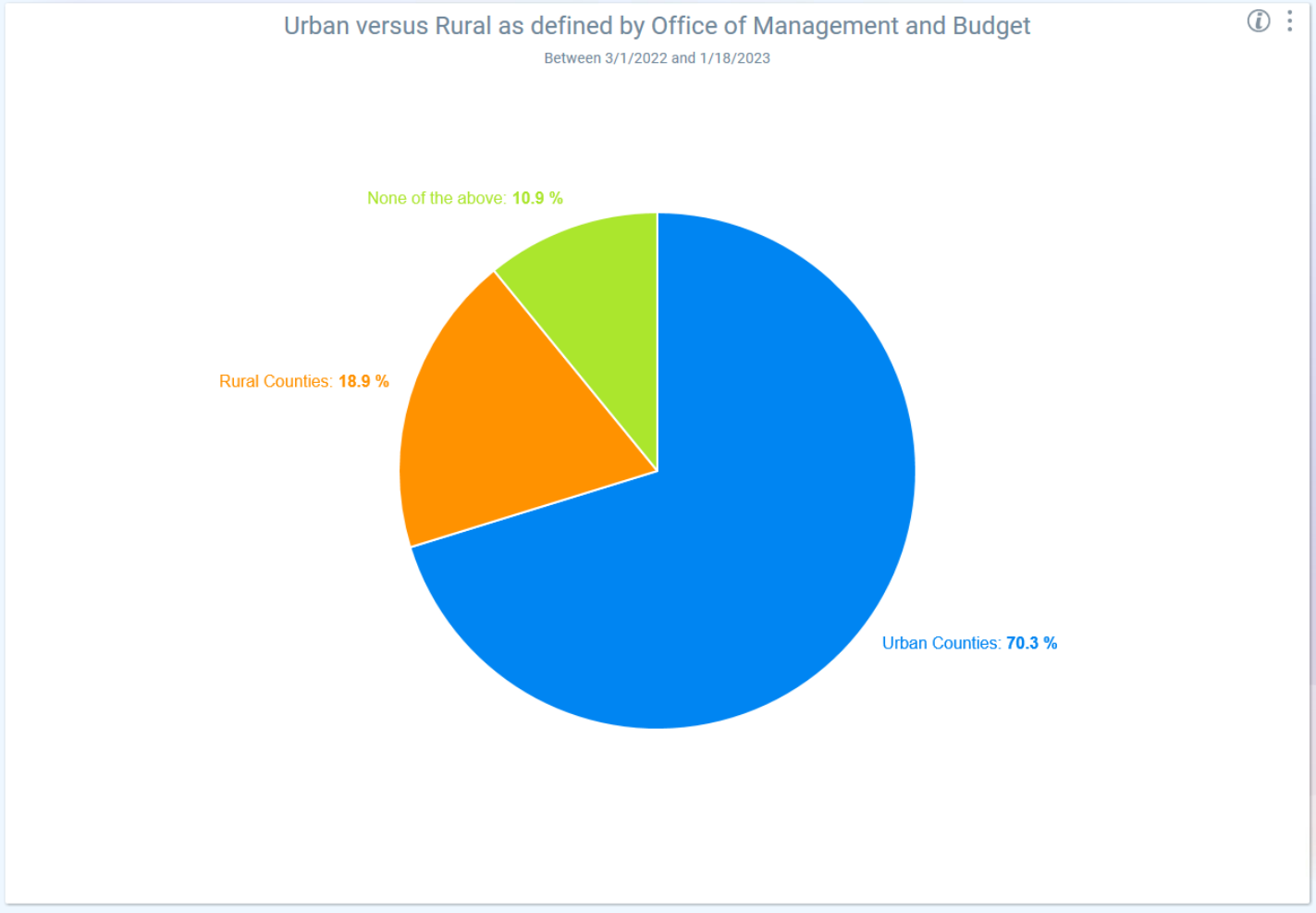
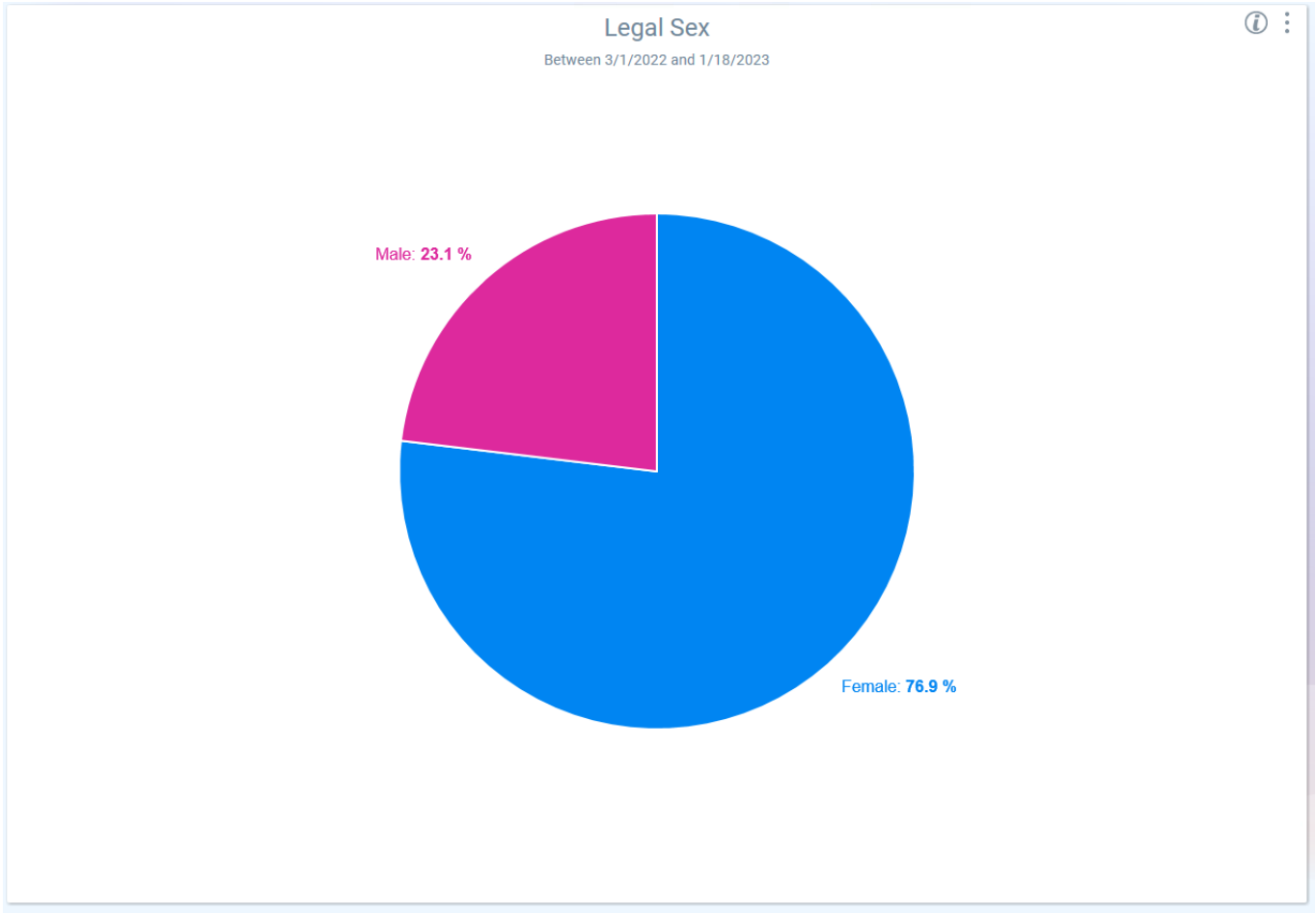
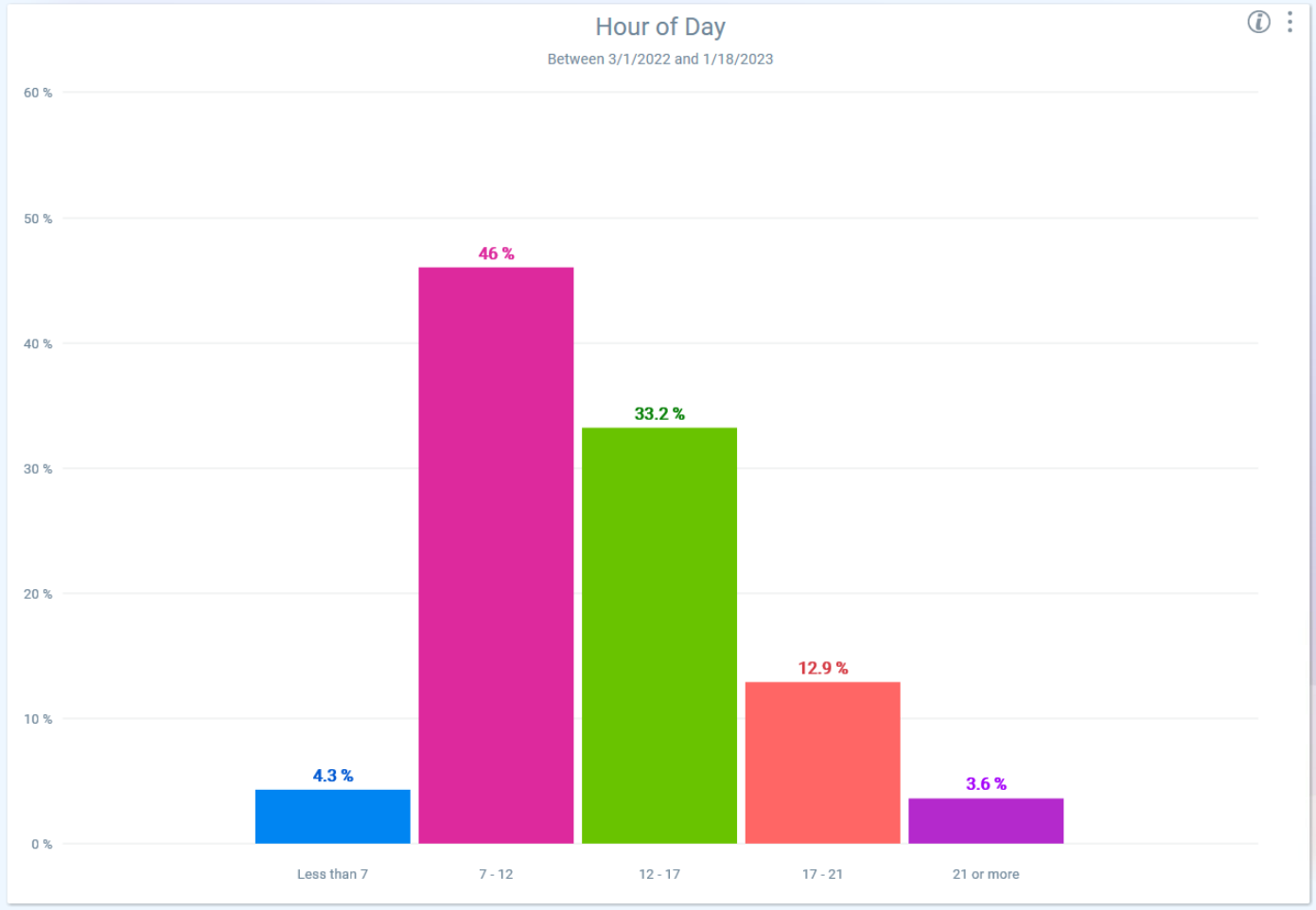
Urban vs Rural



Legal Sex



UMMC 2 You Time of the Appointment



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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 conditions

Types of Locations

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

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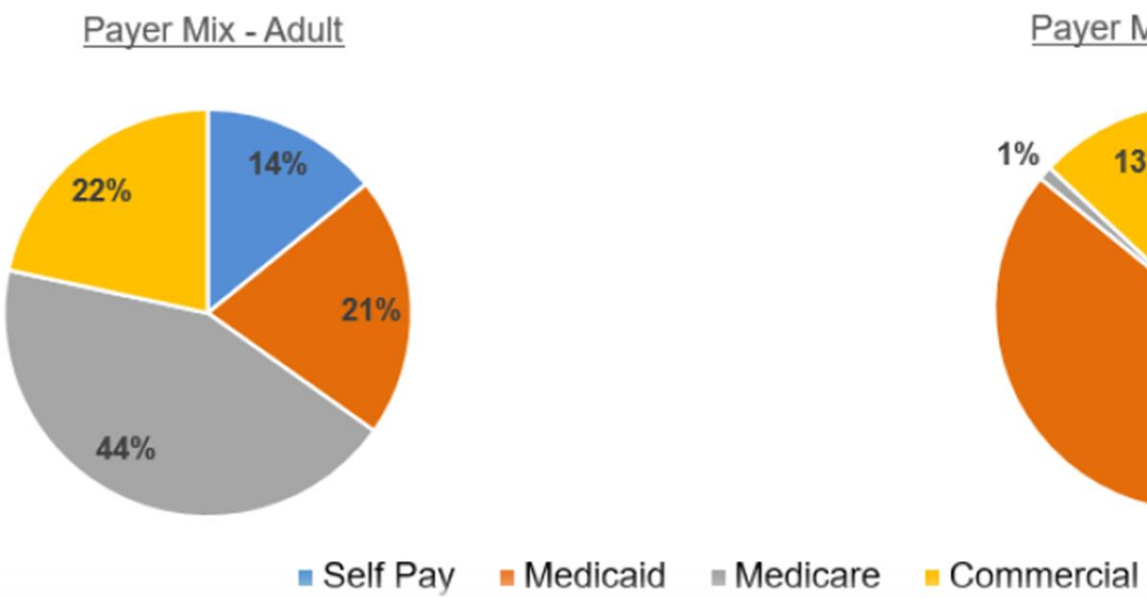
Audio Only Telehealth?

- As of November 20, 2021, Mississippi Medicaid does not reimburse for Audio only visits.

- Medicare coverage of audio-only visits for physical health encounters has been extended till the end of 2024.

Audio Only Telehealth?



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Value of 'audio only' Telehealth visits in enhancing provider and family experience of Pediatric Surgery patients.

Michael Morris MD, Jennifer Russell RN, Ramona Sandlin, Saurabh Chandra MD,PhD.
University of Mississippi Medical Center (UMMC), Jackson. MS.

Introduction

- The declaration of a federal public health emergency (PHE) in response to the COVID-19 pandemic and the resulting loosening of restrictions allowed reimbursement and thus utilization of 'audio only Telehealth (TH) visits' for providing much needed access to care.
- However, there is uncertainty on the future of 'audio' only visits post PHE. There is dearth of compelling data for such visits.
- We present an appropriate use case and data on the utility of 'audio' only visits for Pediatric Surgery patients.

Methods

- We performed a retrospective review of Pediatric Surgery outpatient encounters performed via 'audio only' from August 25, 2021, through July 20, 2022 at UMMC by a single Pediatric Surgeon.

Results

- **205 'audio only'** TH visits were performed for pediatric patients.
- **61%** of 'audio visits' were for post-operative follow ups (126/205) while **12.6%** (26/205) were for preoperative visits for elective surgery.

- **68 %** of patients lived more than **20 miles** from Jackson MS.
- **199.67 miles !** Avg distance to UMMC for these patients.
- Avg time to travel saved by 'Audio' visit: **3 hr, 29 mts.**
- Avg cost of gas saved by 'Audio' visits: **$24**

Disclaimer: *This study is supported by HRSA under cooperative agreement award no. 2 U66RH31459-04-00. The information, conclusions , and opinions expressed are those of the authors and no endorsement is intended or should be inferred.*

Results-Cont.

- common diagnosis included status/post (s/p) umbilical/inguinal hernia repair, s/p chemoport placement/removal, s/p laparoscopy appendectomy, myopathy, Hirschsprung's disease, hereditary spherocytosis, s/p laparoscopy cholecystectomy, and s/p muscle biopsy.

Conclusions

- 'Audio' only TH visits remain a valuable resource to help limit investment of time and money to families that live in rural communities far away from specialized tertiary care centers.
- Policy makers and payers should continue to reimburse for clinically appropriate 'audio' only TH visits beyond the PHE.

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Telehealth for Improving Rural Population Health

Remote Patient Monitoring (RPM)

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Prevalence of Diabetes and Hypertension in MS

- In 2016, Mississippi ranked first in the nation for overall diabetes prevalence, with an estimated 308,295 adult Mississippians living with diabetes (over 13.6% of the adult population).

- More than 700,000 Mississippi adults have high blood pressure (hypertension), and thousands more may be at risk.

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

Remote Patient Monitoring (RPM)

Chronic disease management in the patient's home including:

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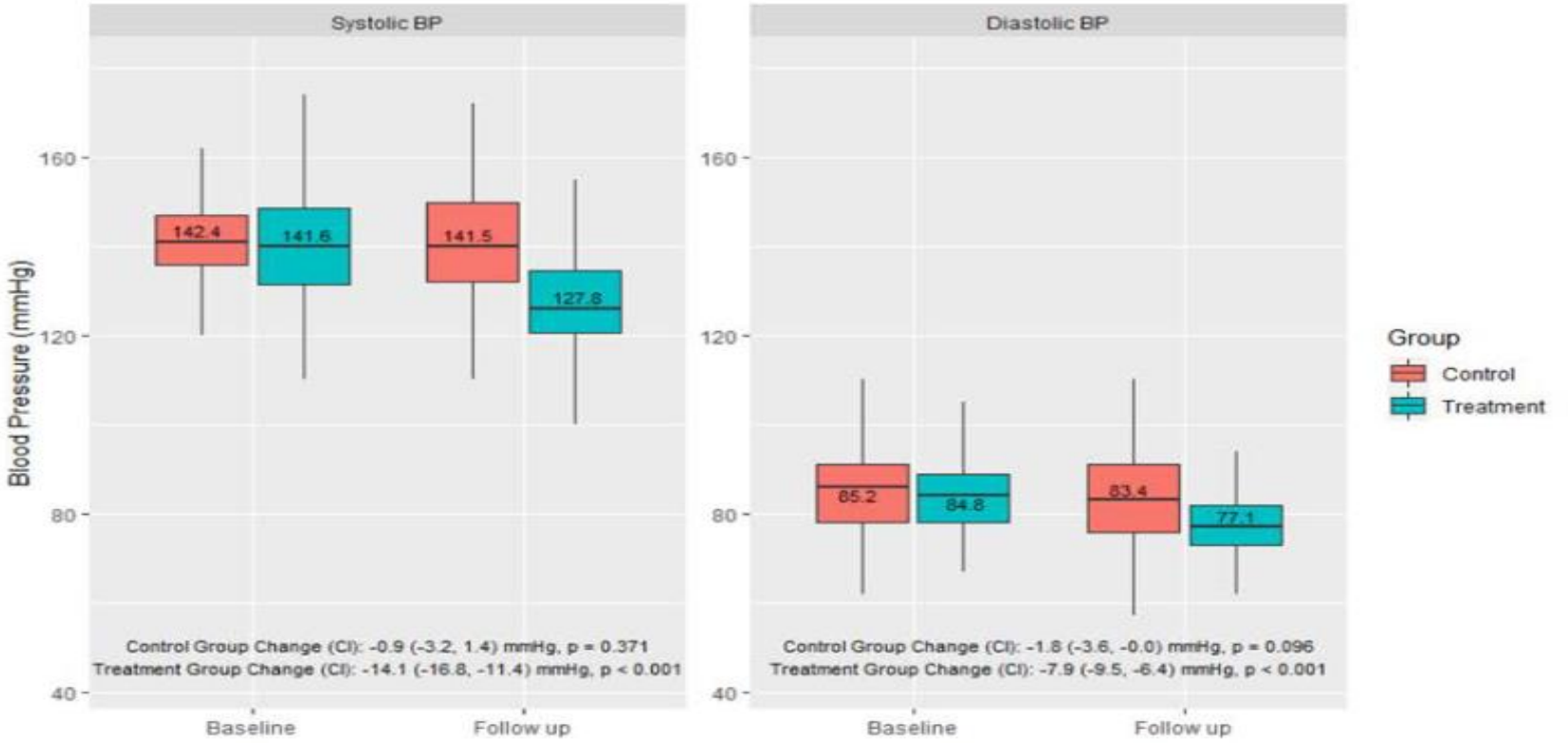
Participant Statistics

- Mean (SD) age of 59.3 (10.8) years
- 65% were women
- 59.2% were Black individuals
- 46.7% reported an annual house-hold income <$30,000
- Lived a mean (SD) of 32.6 (31) miles from University of Mississippi Medical Center main campus
- 29.2% resided in a federally designated rural county

RPM Hypertension Study



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

RPM Hypertension Study Findings-

- There was a clear association of home BP Telemonitoring and BP reduction among rural, minority, and low-income individuals with hypertension.

- Nearly one-third of participants resided in a rural county, the majority were Black individuals, and almost half reported a household income of <$30,000/year.

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School Based Telehealth Program

HEALTHY CHILDREN LEARN BETTER...

SCHOOL TELEHEALTH HELPS TO MAKE IT HAPPEN!!

UMMC Center for Telehealth

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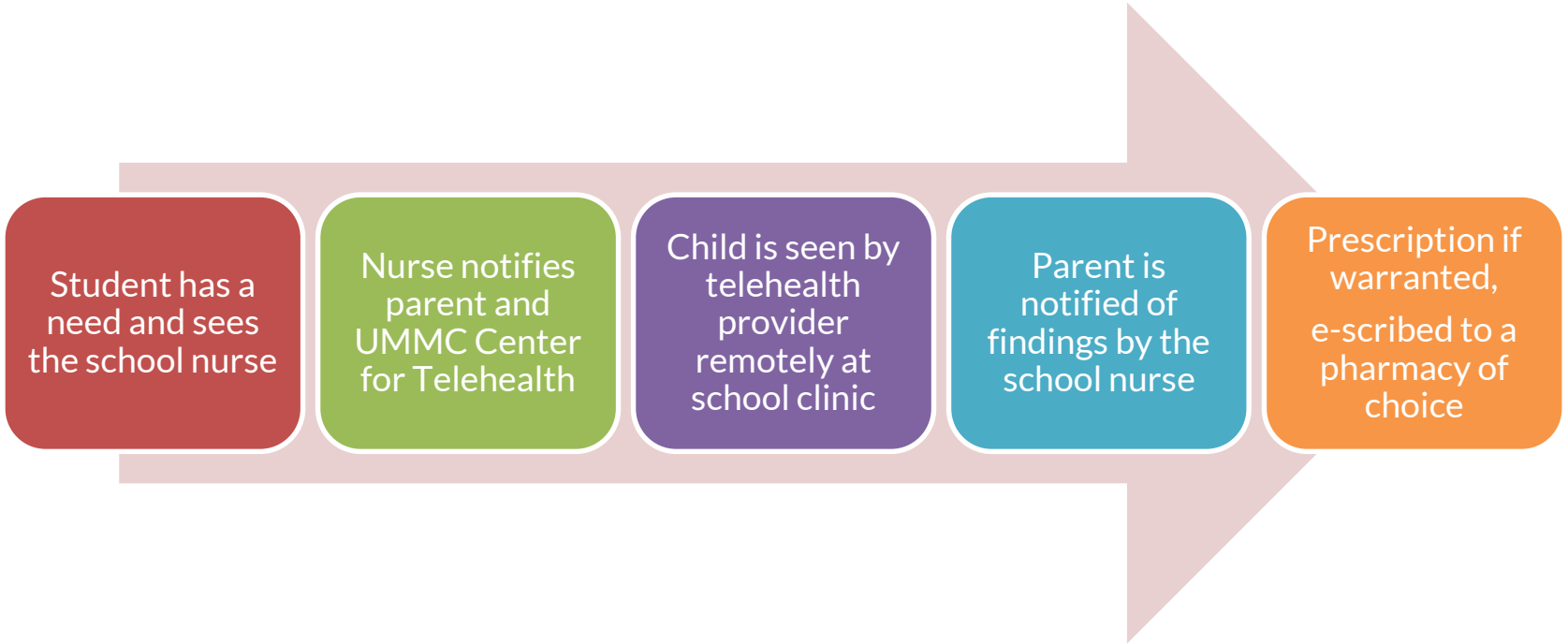
School Telehealth Benefits

- Faster student access to health care on campus
- Better attendance & student performance (same day return to classroom and reduction in absenteeism)
- Decrease in utilization of health services for low acuity issues.
- Decrease in behavioral health related issues.
- Benefits for parents

This project was made possible by the Health Resources and Services Administration (HRSA) of the US Department of Health and Human Services (HHS) as part of the National Telehealth Centers of Excellence Award U66RH31459. The contents are those of the author(s) and do not necessarily represent the official views of nor an endorsement by the HRSA, HHS or the US Government.

HOW IT WORKS! - SCHOOL TELEHEALTH



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When to Use it - School Telehealth

- When considering the ER or urgent care center for a **non-emergency medical issue**
- Behavioral Health issues identified

Examples of What Can Be Treated:

Allergies	Infections
Asthma	Insect Bites
Bronchitis	Joint Aches & Pains
Cellulitis	Poison Ivy
Cold & Flu	Rashes
Constipation	Respiratory Infections
Diarrhea	Sinus Infection
Ear Infection	Skin Inflammation
Fever	Sore Throat
Gout	Urinary Tract Infection
Headache	

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Use it When Students Need: Mental Health Care

- Depression
- Anxiety
- Emotional needs
- Behavioral difficulties
- Coping skills
- Trouble expressing feelings

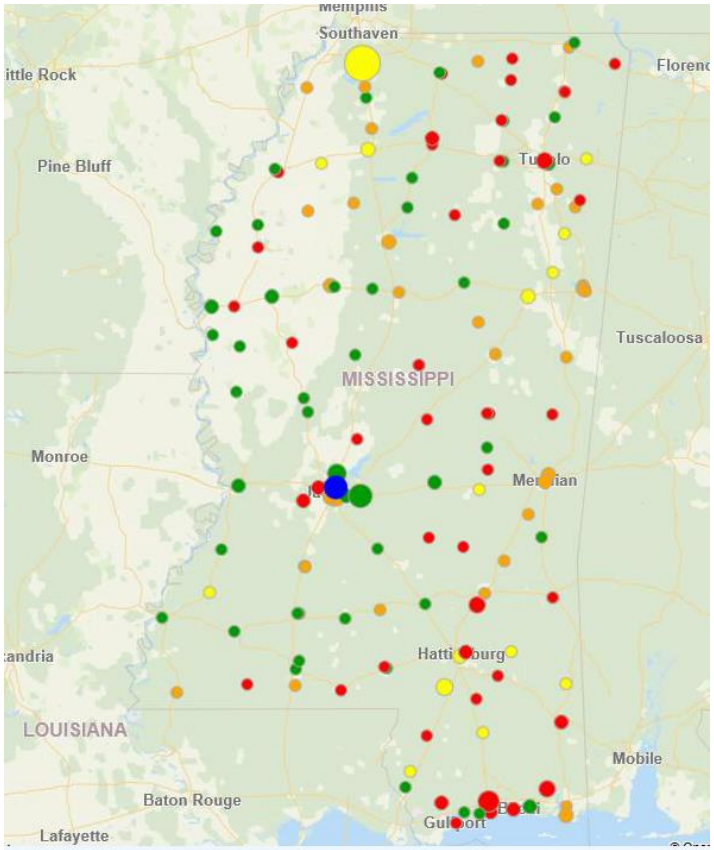
Use it When Students Need: Dental Care

We train school nurses on how to spot common dental problems in students and help students develop healthy dental habits.

Use it When Students Need: Diabetes Coaching

We offer lifestyle coaching for students at risk of developing diabetes.

Live School Districts



As of August 1, 2022, school telehealth has been successfully implemented in 52 school districts

Total Number of Schools:

295

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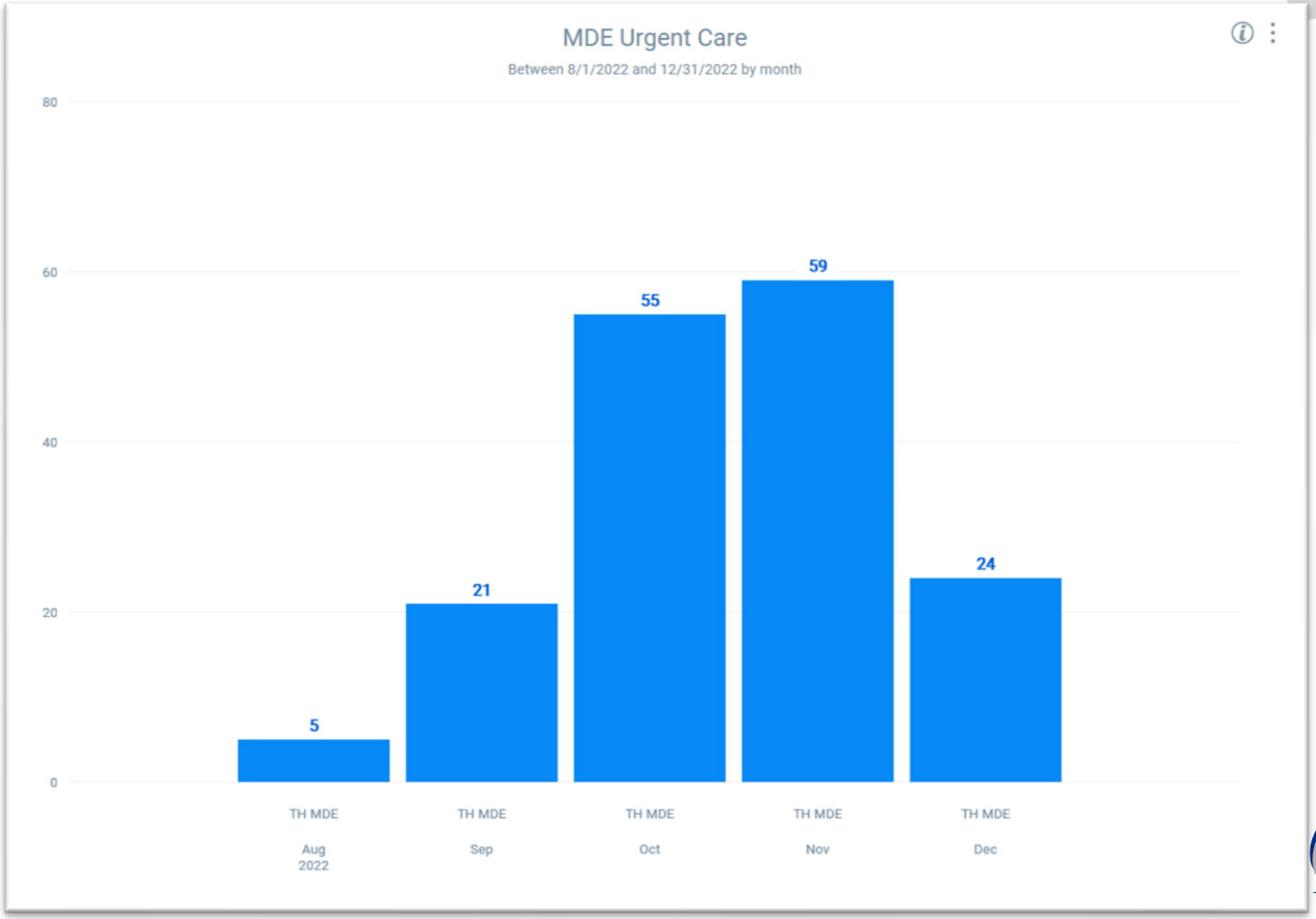
Urgent Care Visits by Month



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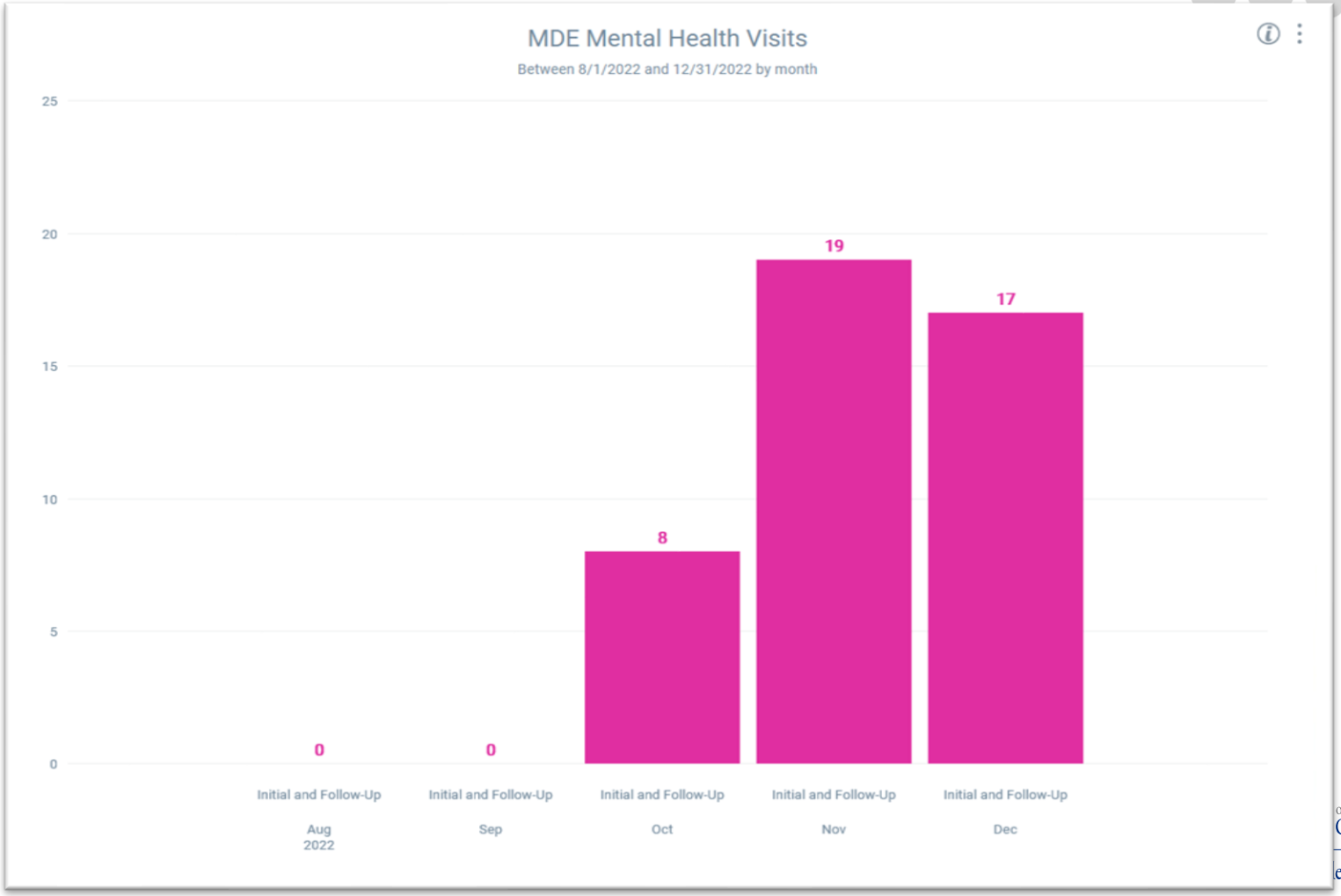
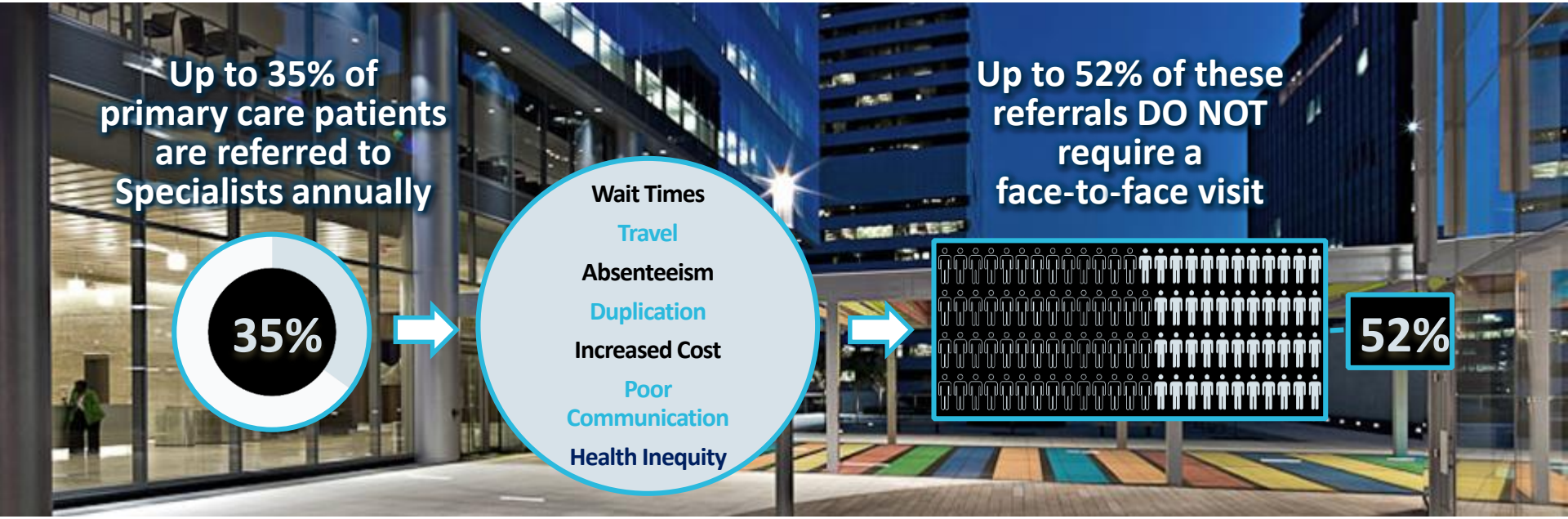
Mental Health Visits – by Month



Provider to Provider Consults (e-Consult)

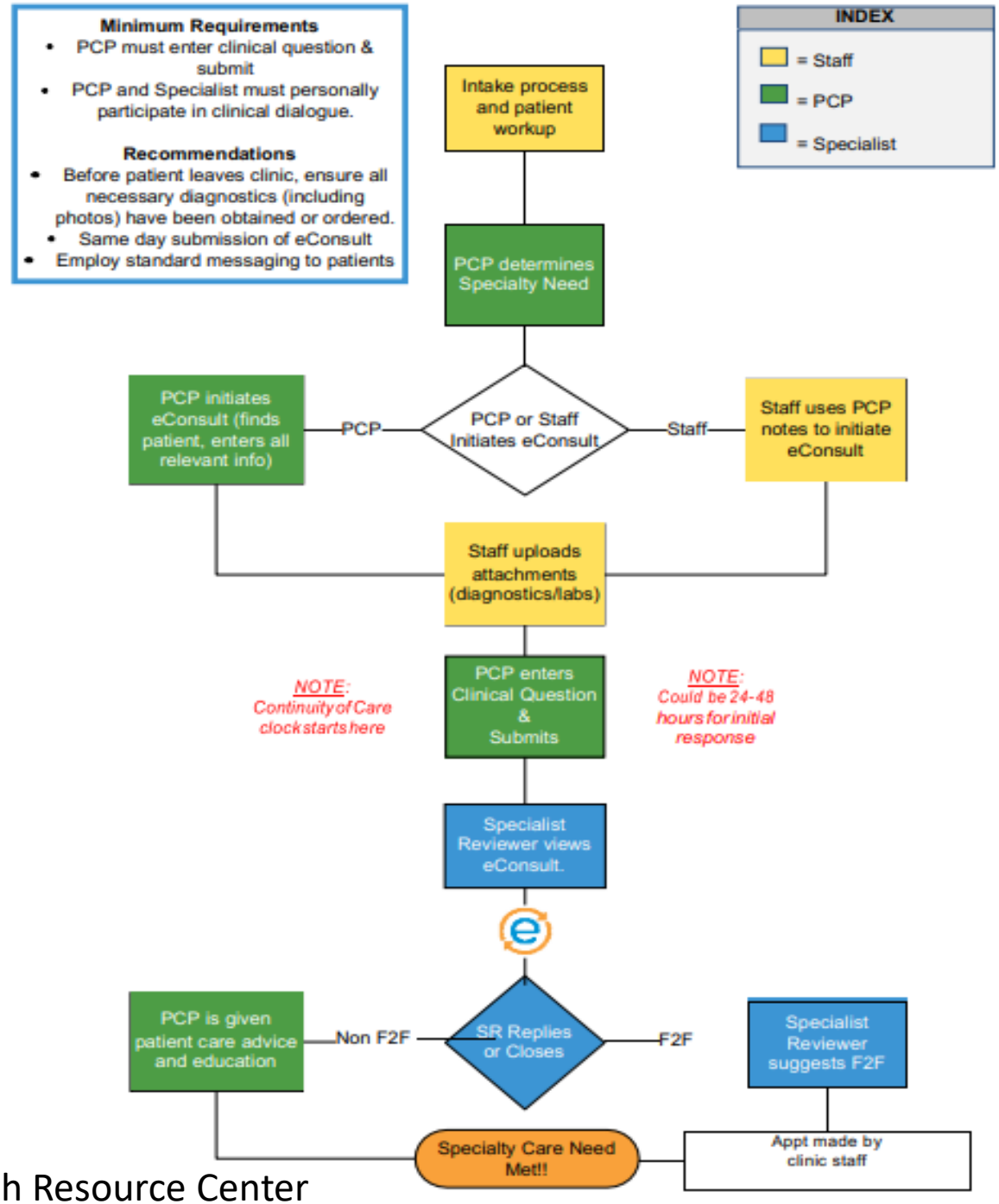
PCP Referrals to Specialty



e-Consults

- e-Consult is an asynchronous electronic communication that enables primary care providers to obtain specialists' inputs into a patient's care treatment without requiring the patient to go to a face-to-face visit.

- The initiating provider sends a secure message, often with lab reports, images, or other necessary documentation, to the specialist asking advice about diagnosis and patient management.


Minimum Requirements
PCP must enter clinical question & submit
PCP and Specialist must personally participate in clinical dialogue.
Recommendations
Before patient leaves clinic, ensure all necessary diagnostics (including photos) have been obtained or ordered.
Same day submission of eConsult
Employ standard messaging to patients
INDEX
= Staff
= PCP
= Specialist
Intake process and patient workup
PCP determines Specialty Need
PCP initiates eConsult (finds patient, enters all relevant info)
PCP
PCP or Staff Initiates eConsult
Staff
Staff uses PCP notes to initiate eConsult
Staff uploads attachments (diagnostics/labs)
NOTE: Continuity of Care clock starts here
PCP enters Clinical Question & Submits
NOTE: Could be 24-48 hours for initial response
Specialist Reviewer views eConsult.
PCP is given patient care advice and education
Non F2F
SR Replies or Closes
F2F
Specialist Reviewer suggests F2F
Specialty Care Need Met!!
Appt made by clinic staff

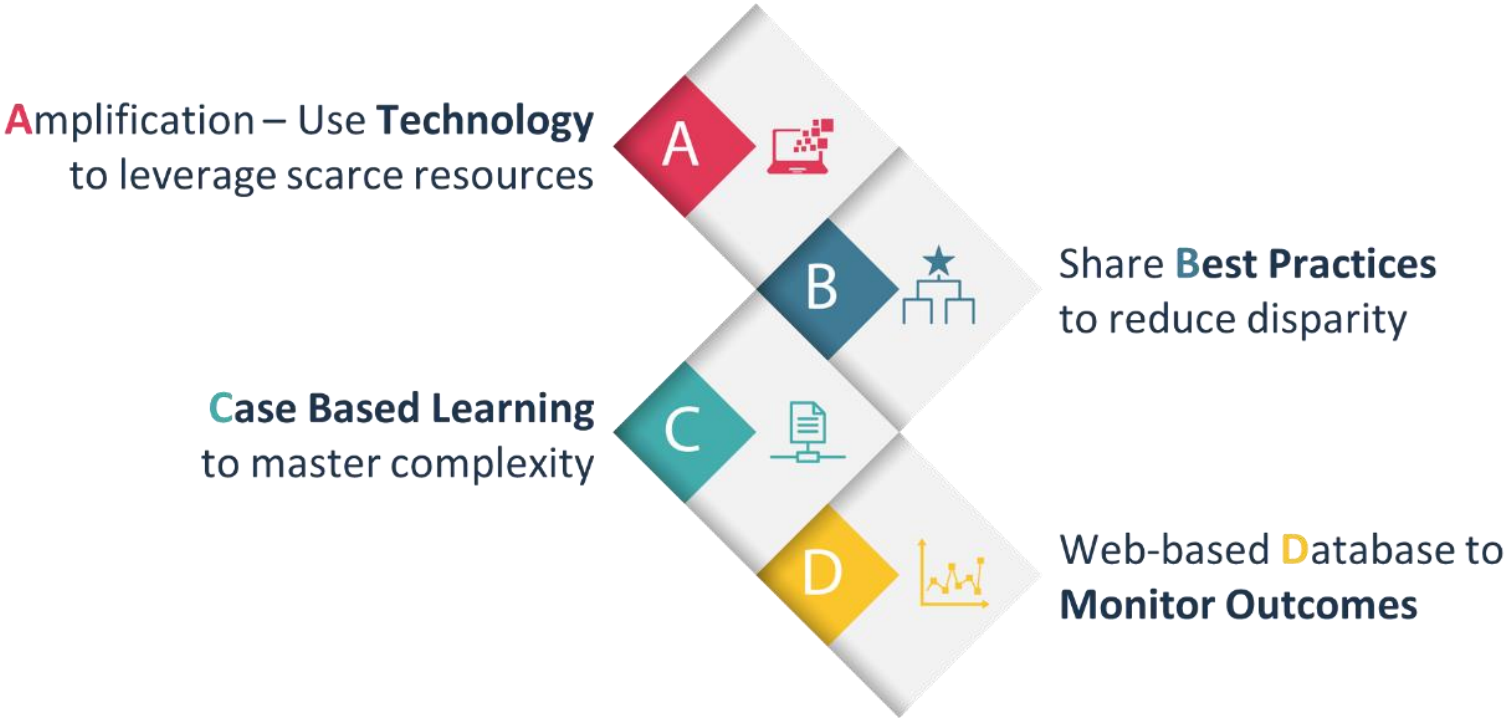
e-Consult (Evidence from the Literature)

- e-Consults for four specialties, cardiology, gastroenterology, rheumatology, and endocrinology, were implemented in a large, multi-site FQHC.
- Prior to implementation, 23% of uninsured patients referred to the included specialties completed a visit with a specialist.
- After implementation, 62% received a specialty consultation either through an e-Consult or F2F. Wait times for referrals improved from a median of 54 days to seven days.

J Health Care Poor Underserved. 2022;33(2):779-789

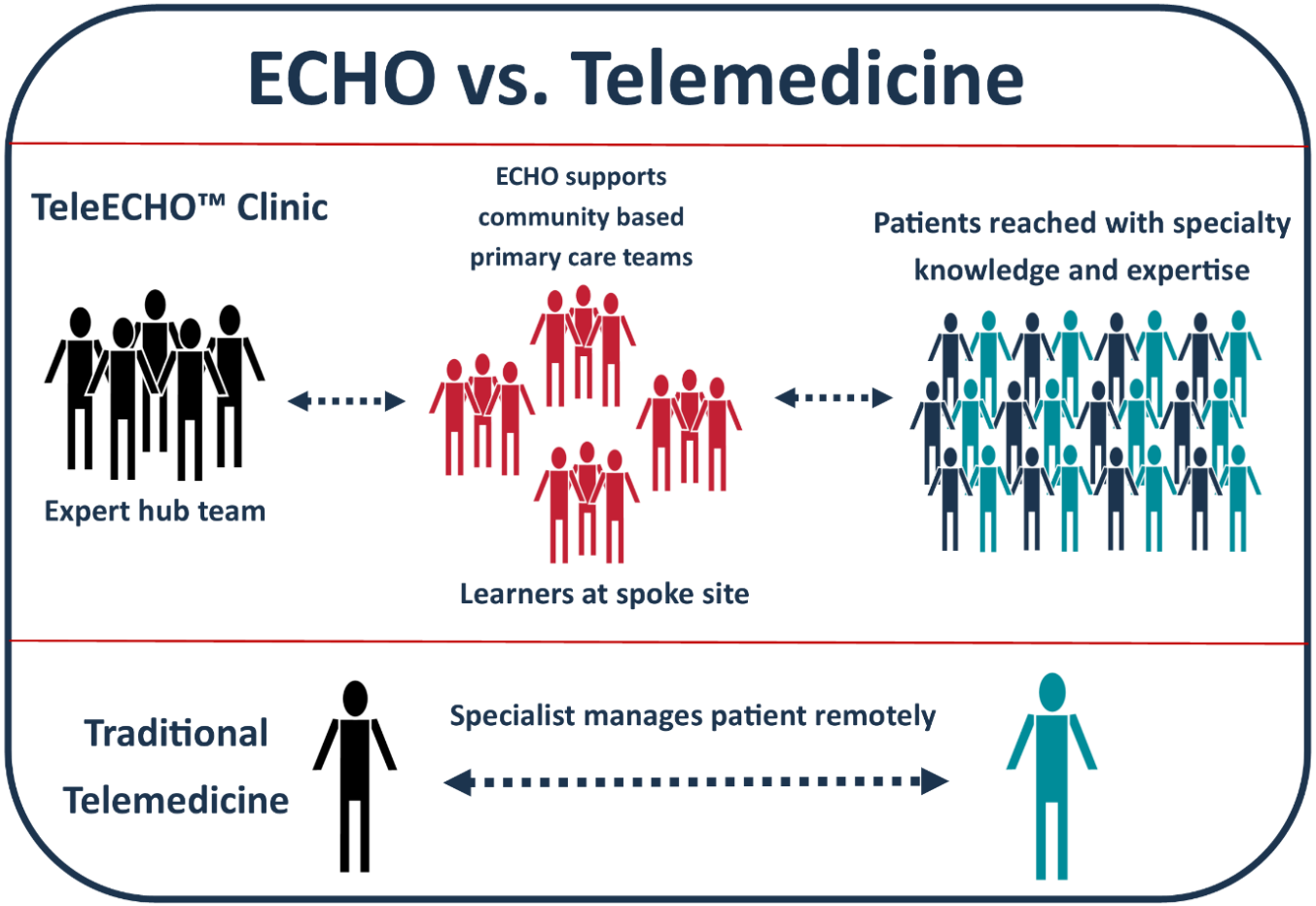
Education and Workforce Development

What is the ECHO Model™?



https://echo.unm.edu/img/echo-model.png

ECHO vs Telemedicine



https://echo.unm.edu/img/echo-model.png

2022 - UMMC Project Echo Dermatology Participant Data

Session	# of Participants	# of Cases
January 2022	No session	No session
February 2022	18	2
March 2022	25	1
April 2022	36	1
May 2022	38	2
June 2022	19	3
July 2022	16	2
August 2022	32	2
September 2022	12	3
October 2022	Session Canceled	Session Canceled
November 2022	24	2
December 2022	27	2
TOTAL	**247**	**20**

This presentation was made possible by the Health Resources and Services Administration (HRSA) of the US Department of Health and Human Services (HHS) as part of the National Telehealth Centers of Excellence Award U66RH31459. The contents are those of the author(s) and do not necessarily represent the official views of nor an endorsement by the HRSA, HHS or the US Government.

2022 - UMMC Project Echo Pediatric Dentistry Participant Data

Session	# of Participants	# of Cases
April 2022 (Echo Launched)	21	1
May 2022	Session Postponed	Session Postponed
June 2022	18	1
July 2022	25	1
August 2022	41	1
September 2022	40	2
October 2022	38	1
TOTALS	183	7

ECHO (Evidence from the Literature)

Pre-Post ECHO Participation Outcomes Data

ECHO	Medicaid Claims Data	Pre-Post ECHO Participation Outcomes
Pain Management	Opioid Prescribing Patterns Morphine Milligram Equivalents (MME)	19% decrease in MME*
Autism	Child Development Screenings	29% increase in screenings
Dermatology	Claims containing one or more specific dermatology diagnosis code	452% increase in coding specificity**

*2 years post participation

**by providers that attended more than one Dermatology ECHO

Embracing the Power of Show-Me ECHO Learning Communities to Transform Clinical Practice in Missouri. Mo Med. 2020 May-Jun;117(3):216-221

The University of Mississippi Medical Center
Center for Telehealth

Mental Health Workforce Development - Ole Miss "COPE" Clinic Collaboration

- Telehealth Certified LPC Supervisor –funded by UMMC
- Students/Interns/Residents participate in developing TH training tools and mental health education that will be delivered via electronic means.
- TH is incorporated into their learning objectives.

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Mental Health Workforce Development - Ole Miss "COPE" Clinic Collaboration

- Students will be comfortable with TH modalities while in school.
- This collaboration produces more mental health professionals who are proficient with the use of Telehealth in their practices
- Allows for more research regarding student perceptions and barriers to TH utilization in mental health.

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Barriers in Implementing Rural Telehealth Programs

Sustainability of Telehealth Pilots

- Most Telehealth projects implemented in rural areas are supported by grant funding.
- Pilot project ---- > Sustainable Program

Zhang/Chandra et al, accepted for publication, TELEMEDICINE and e-HEALTH.

Reimbursement for Telehealth Programs

- Varies from state to state for Medicaid and employer based insurance.
- Medicare - uncertainty exists after flexibilities end (audio only, in-person requirement, providers allowed)

Shortage of Workforce

- Shortage of Workforce impacts telehealth Programs as well!
- Variations in State laws makes it challenging for out of state Telemedicine providers.

Data Integration and Interoperability - Axe the Fax!

What's wrong with a fax (it's the way we have always done it)!!!?

- You only receive demographic information and/or the specific information you asked for.
- Someone will need to input the information MANUALLY into your EMR.
- Manual entry of information leads to errors.

Direct Messaging (What is a Direct Message)

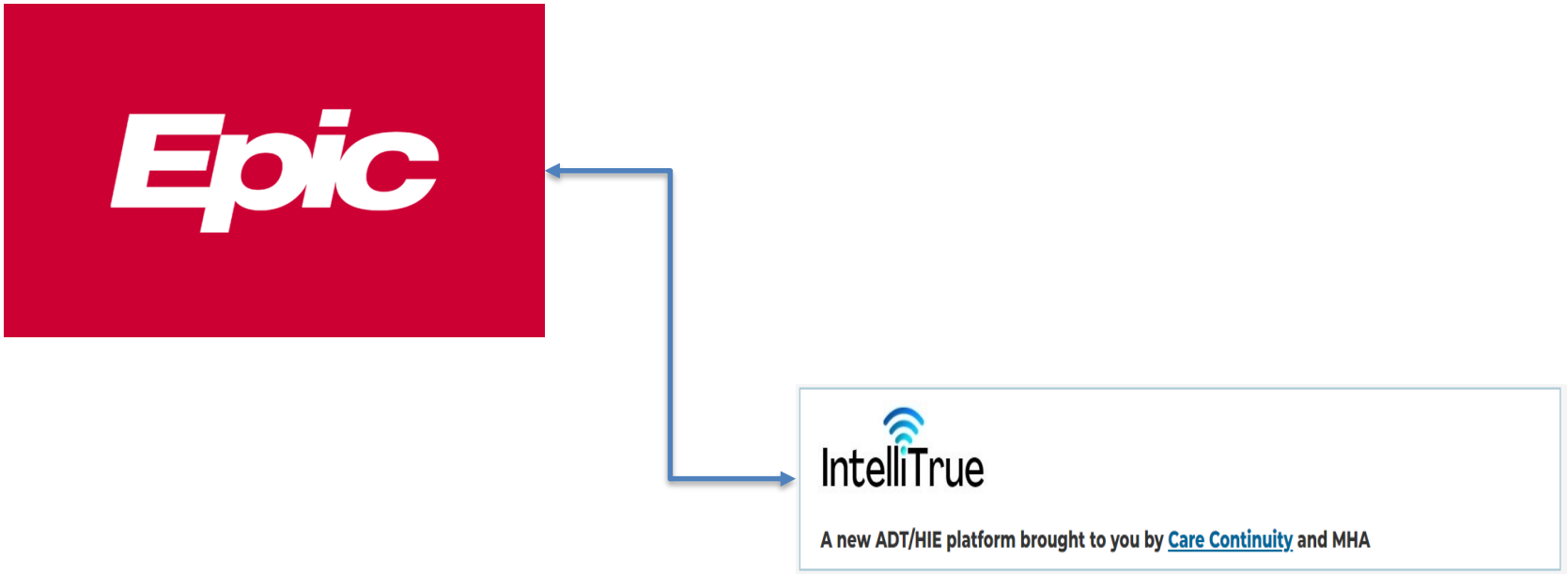
- A direct message is a secure message from one health care provider to another utilizing the Direct Standard, a technical standard for exchanging health information between health care entities.
- Included in the Direct Message (when utilizing for a referral) is typically:
  - Demographic information
  - Medication list
  - Immunization list
  - Allergies
  - Past relevant medical history
  - Prior visit information

- The sending data is sent in a format that allows the receiving institution to standardize how the information is presented to the provider

What Does a Direct Message Get Me (and What it Doesn't)?

- What it gets you:
  - The current demographic information on the patient that is being referred
  - The current medication list
  - Current labs on the patient
  - The provider team information of the referring facility
  - The ability to register the patient into your EMR without the need of retyping all the information
  - The ability to properly route the referral
- What it doesn't get you:
  - Updated information on the patient

Connectivity to the Statewide HIE



Health Information Exchange

- Benefits to working with the statewide Health Information Exchange (HIE)
  - Receive near real time notification if a patient you are monitoring arrives at another facility connected to the HIE.
  - Receive updated information on any patient that you are currently monitoring
  - Receive updated labs and meds
  - Each health system obtains all information for the connected network, saving each health system from having to setup interfaces to each other
- Barriers
  - Far end systems have to be connected to the HIE for this to work
  - Each health system decides on what they want to share, so you may have to work with each system to make sure they are sharing all relevant information

Digital Divide

- Digital Literacy
  - Knowledge of technology and applications
- Accessibility
  - Lack of broadband infrastructure (fiber, cable, DSL)
  - Low bandwidth, speed
- Affordability
  - Cost of internet and mobile devices, laptops

Health Equity in Telehealth

Health equity in telehealth is the opportunity for everyone to receive the health care they need and deserve, regardless of social or economic status. Providing health equity in telehealth means making changes in digital literacy, technology, and analytics.

Utilizing a Remote Certified Medical Assistant (CMA) role to increase the efficiency of Telehealth Visits for Diabetic Patients.

Lillian Lien MD, Debra Taylor FNP, Tanya Tucker RN, Charity Jenkins CMA, Vanessa Trammell MS, Saurabh Chandra MD, PhD
University of Mississippi Medical Center, Jackson. MS.

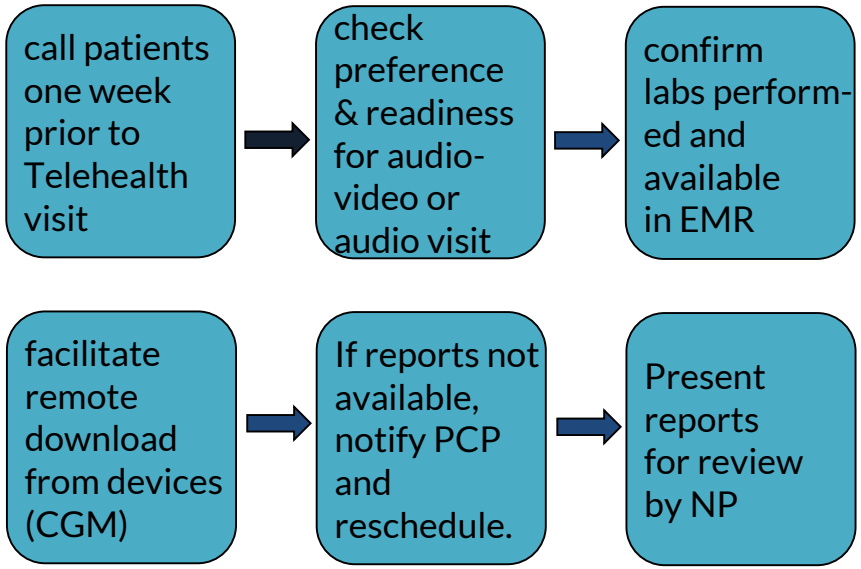
Introduction

- COVID-19 pandemic saw an exponential rise in outpatient Telehealth visits that provided much needed access to healthcare when in-person visits were largely shut down.
- To sustain outpatient Telehealth visits post-pandemic and improve patient and provider experience, we created a remote role for a certified medical assistant (CMA) to increase the efficiency of Telehealth outpatient visits conducted by a Nurse Practitioner (NP) for both initial and follow up visits of **diabetic patients**.

Methods

- We hired a CMA and developed a workflow and trained the CMA to accomplish the following tasks in a virtual setting:

Methods- Cont.



Disclaimer: *This study is supported by HRSA under cooperative agreement award no. 2 U66RH31459-04-00. The information, conclusions , and opinions expressed are those of the authors and no endorsement is intended or should be inferred.*

Results

- 293 Telehealth visits assisted by CMA was compared to 341 without assistance,
- CMA assisted Telehealth visits had a lower no show rate **(8% vs 14%)** and cancellation rate **(13% vs 19%).**
- Higher provider satisfaction- more time available for active engagement with patients during visits.

Conclusions

- we demonstrate that training and integrating CMAs in Telehealth visits can improve no-shows, cancellations and provider satisfaction.
- we next plan to perform a comprehensive economic analysis that includes cost savings for the patients to develop a sustainability model for the paradigm.

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Digital Health- Buy in From Patients and Providers

Feature	Patient	Medical professional
Electronic	Uses digital technologies in their disease or health management	Uses digital technologies in their practice with ease
Equipped	Has digital health technologies at their disposal	Has digital health technologies at their disposal
Enabled	Enabled by their newly acquired access to information	Enabled by regulations and guidelines
Empowered	Empowered by the loss of the ivory tower	Empowered by technologies that support their job and e-patients
Engaged	Taking an active part in their care	Needs compassion and empathy to understand the feelings and points of view of patients, involving them throughout the whole healing process
Expert	Expert in the use of technologies in their care or health management	Expert in the use of technologies in their practice

Mesko et al, J Med Internet Res 2019 | vol. 21 | iss. 3 | e12490

Digital Health - The New Paradigm

Mesko et al, *mHealth* 2017;3:38

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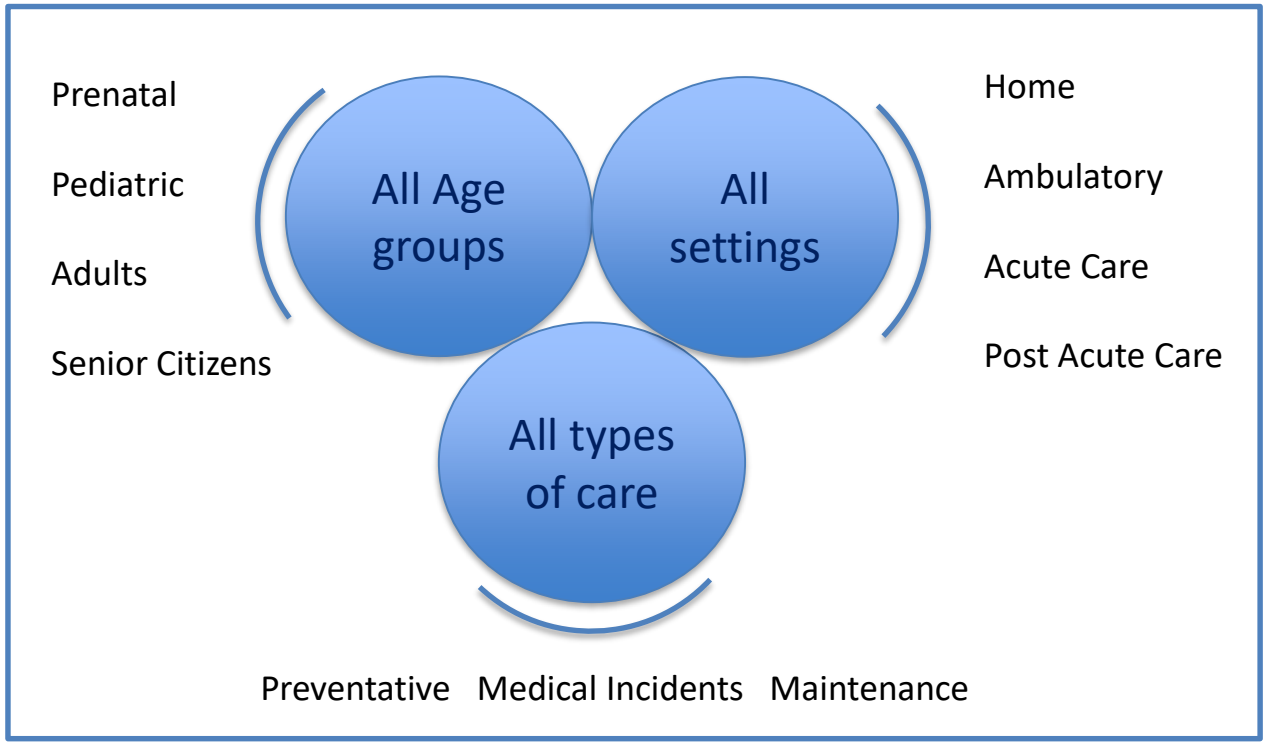
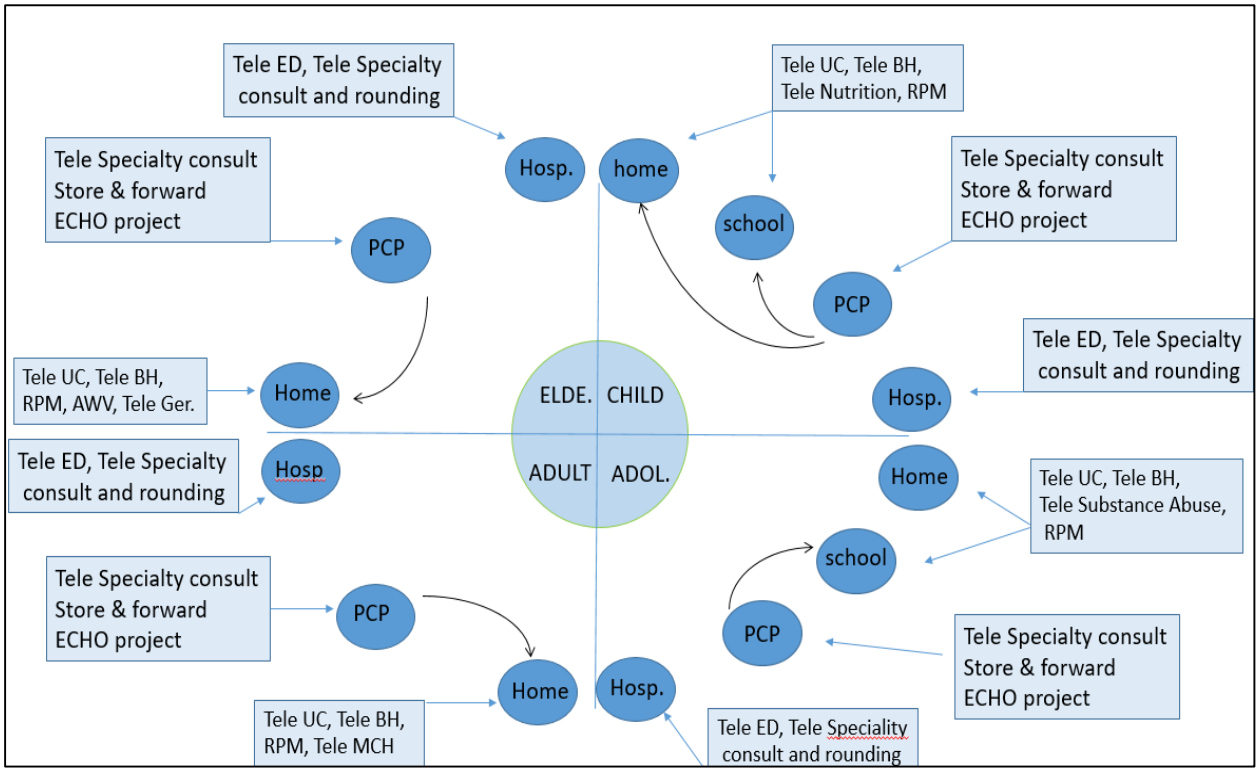
Framework for Telehealth Projects -

- Integrate with existing care delivery models.
- Should not lead to fragmentation of care.
- Bridge gaps in existing care models with the net result of enhancing care and not substitution of care.
- Telehealth programs should create and demonstrate value for multiple stakeholders.
- Telehealth programs should transform care across the ‘care continuum’.
- Reduce Disparities in Access to Healthcare.

What is the Care Continuum?



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



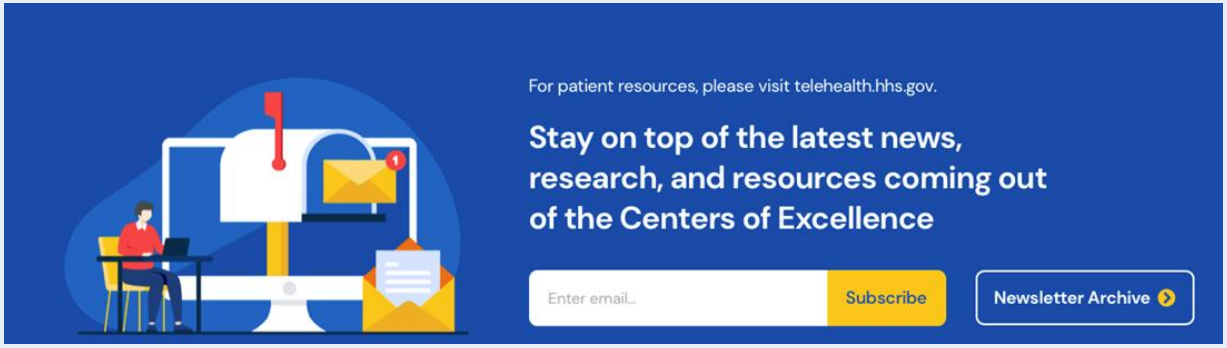
The University of Mississippi MEDICAL CENTER
Center for Telehealth

Telehealth Centers of Excellence

As a HRSA-funded collaboration, the COEs develop resources for telehealth organizations, researchers, providers, and staff based on their experience, research and innovation. The COEs focus on the efficacy of telehealth services in rural and urban areas and serve as national clearinghouses for telehealth research and resources, including technical assistance. The COEs have high annual volume of telehealth visits and have established programs that provide telehealth services in medically underserved areas with high chronic disease prevalence and high poverty rates.

https://telehealthcoe.org/

- The COEs will host quarterly webinars.
- Sign up for the newsletter to stay up to date on COE communications, including future webinar details, as well as project features, publications, TA documents, upcoming events, etc.



Future of Rural Healthcare- Proposed Multi-specialty Telehealth center in Ashland, MS.

It’s all About the Team!

Tearsanee Davis, FNP, DNP, FAANP
Director of Clinical Programs and Strategy

Richard Summers, MD
Associate Vice Chancellor for Research. Co-PI

Saurabh Chandra, MD, PhD
Chief Telehealth Officer
Project Director

Gregrey Hall
Director of IT

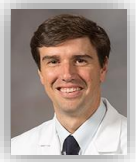
Kyle Brewer
Administrator

Jennifer Bryant
Director of Operations

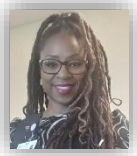
Christina Wright, BS
Director of School Based Telehealth

La’Kitha Hughes, MS
Grants Manager

DeAngela Ivory, MPH
Project Manager I



Donald Clark, MD
Medical Director RPM



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Yunxi Zhang, PhD
Assistant Professor Biostatistician

Tanya Tucker
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John Swint, PhD
Professor of Health Economics. UTHSC

Hollie Thomas, BS
Project Coordinator

Shirley Stasher

Shonda Sandifer

Cindy Broome

Lou Stapleton

Cheryl Lasource
Darries Langton
Judith Groff
Susan Lewis
Tiffany Reagan

RN Care Coordinators

Carly Brown, PharmD

Pharmacist

The University of Mississippi Medical Center
Center for Telehealth

Office for the Advancement of Telehealth (OAT)

HRSA is home to the **Office for the Advancement of Telehealth:**

- Serves across HHS and enhance coordination with other key federal partners to leverage telehealth to improve access, enhance outcomes, and support clinicians and patients
- Promotes the use of telehealth technologies for health care delivery, education, and health information services
- Provides funding for direct services, research, and technical assistance in the field of telehealth

42 U.S. Code § 254c–18 - Telemedicine; incentive grants regarding coordination among States

42 U.S. Code § 254c–14 - Telehealth network and telehealth resource centers grant programs

SEC. 711. [42 U.S.C. 912]

Questions?

Bridging the gaps in quality healthcare

schandra@umc.edu