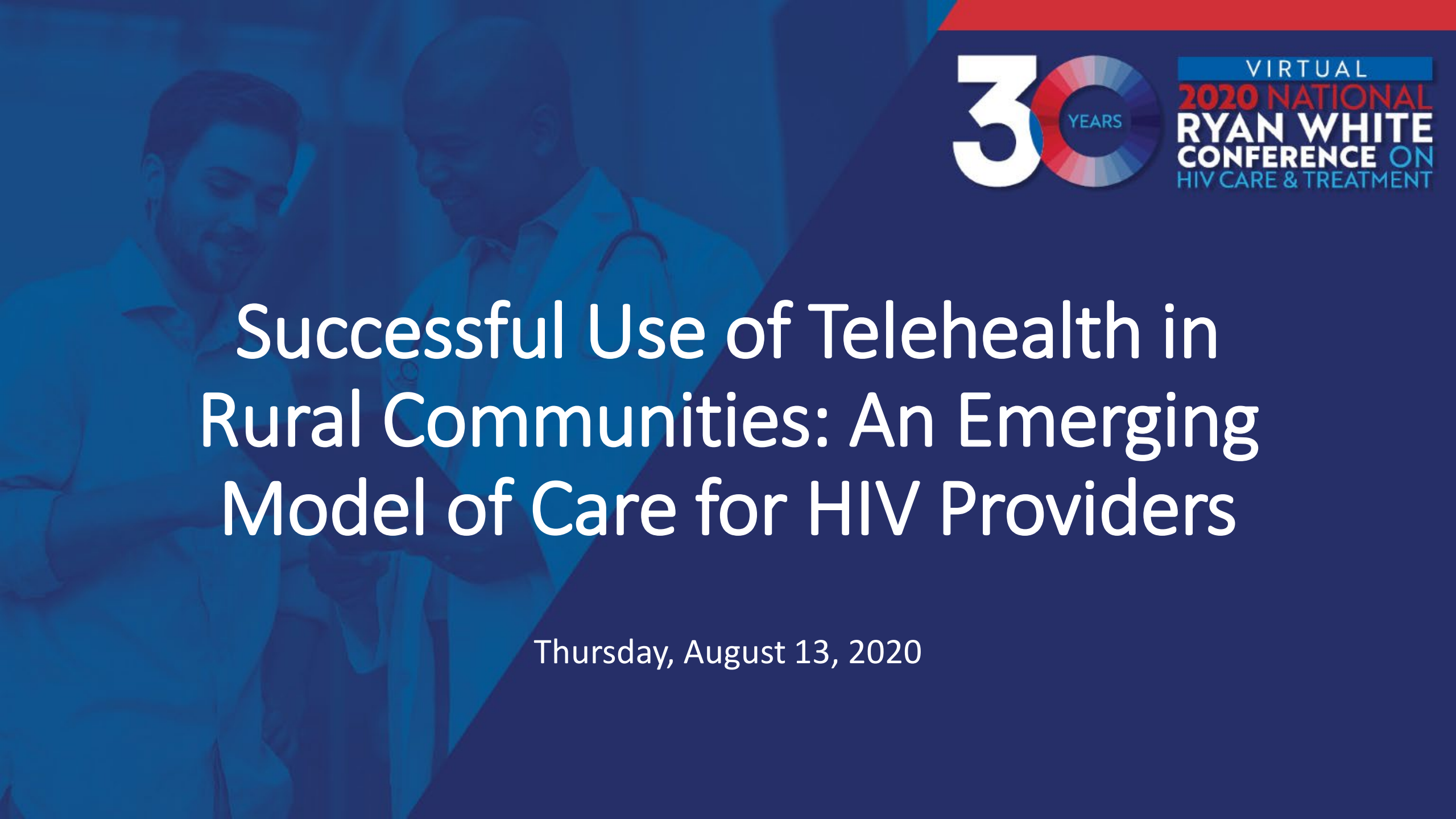

VIRTUAL
2020 NATIONAL RYAN WHITE CONFERENCE ON HIV CARE & TREATMENT

30 YEARS

Successful Use of Telehealth in Rural Communities: An Emerging Model of Care for HIV Providers

Thursday, August 13, 2020

Session Agenda

- "Prescribing Buprenorphine Through Telemedicine on a Mobile Unit in an Underserved Rural County: Pilot Data and Lessons Learned" by University of Maryland, School of Medicine
- "OSU Telemedicine" by Oklahoma State University
- Q&A

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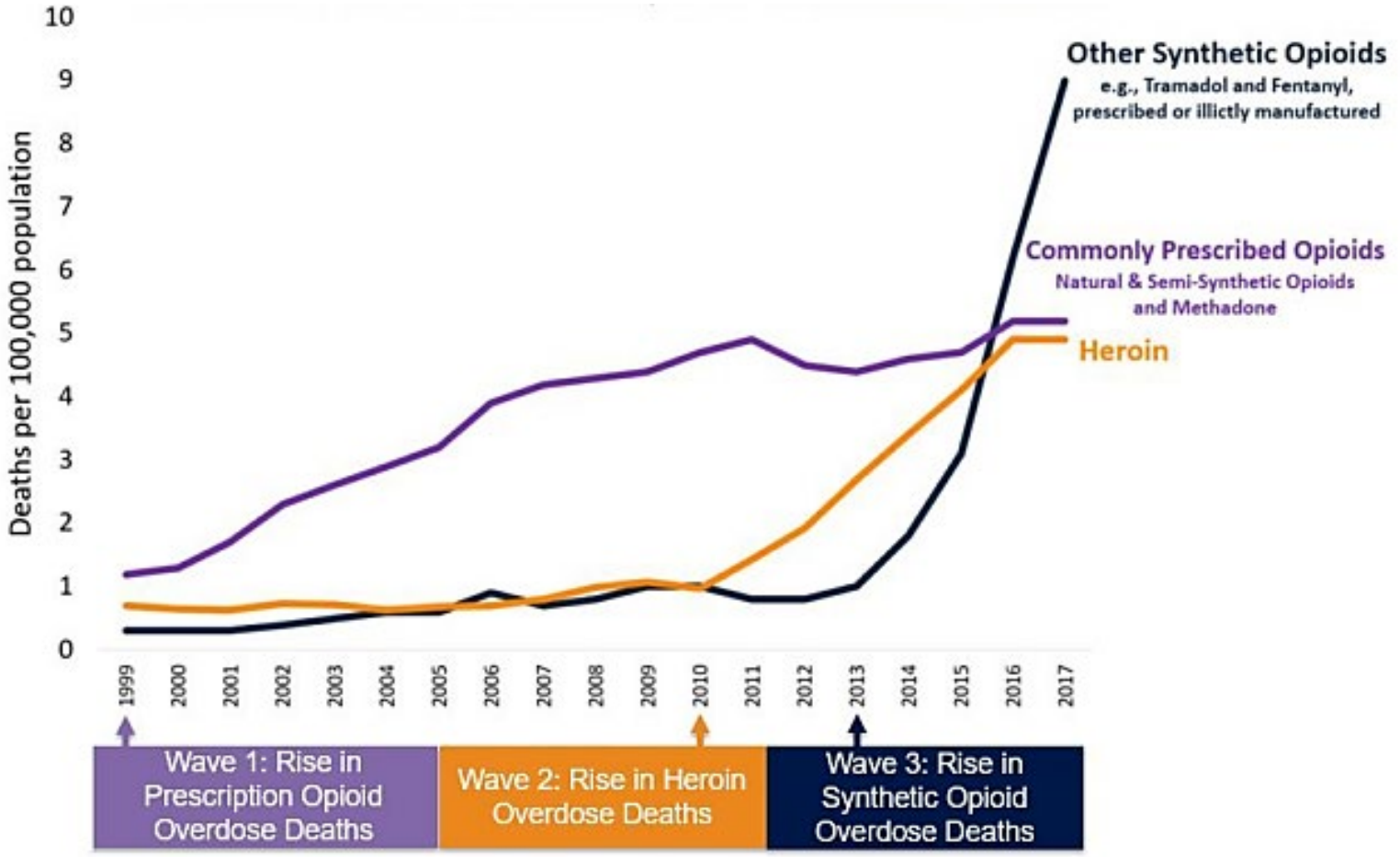
Prescribing Buprenorphine Through Telemedicine on a Mobile Unit in an Underserved Rural County: Pilot Data and Lessons Learned

Eric Weintraub, M.D
Associate Professor of Psychiatry
Director Division of Addiction Research and Treatment
University of Maryland, School of Medicine

Learning Objectives

- To understand the current extent and severity of the opioid epidemic in the United States with a focus on issues impacting rural America
- Outline available effective evidence-based treatments and interventions for individuals with opioid use disorder and to discuss barriers to these interventions in underserved rural areas
- Discuss the use of current telemedicine interventions with a focus on a mobile unit that are being utilized to expand access to medication-based treatment in these underserved rural areas

3 WAVES OF THE RISE IN OPIOD OVERDOSE DEATHS



SOURCE: National Vital Statistics System Mortality File.

RURAL AND URBAN SUBSTANCE ABUSE RATES

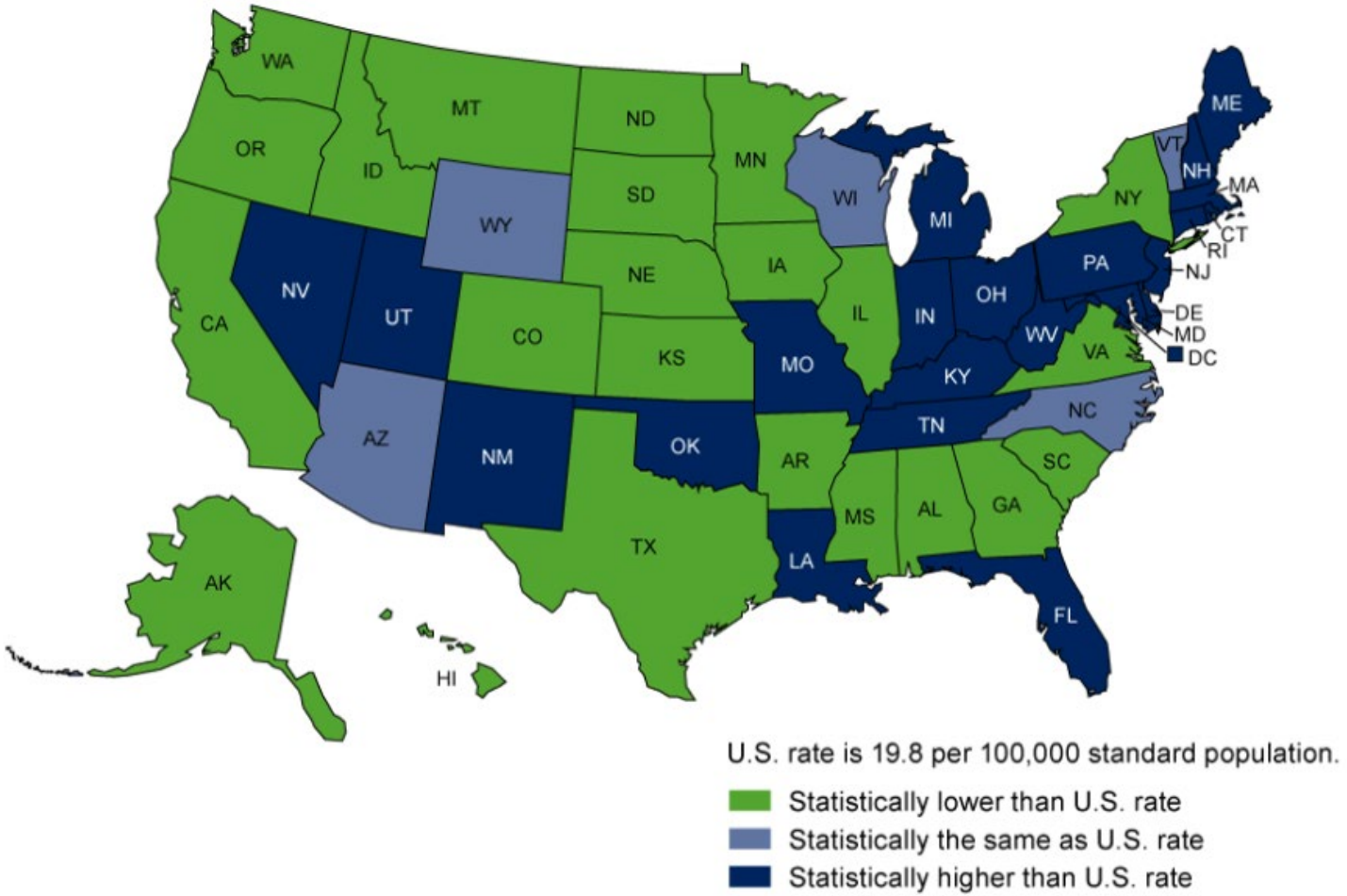
	Non-metro	Small metro	Large metro
Alcohol use by youths aged 12-20	37.8%	35.3%	34.3%
Binge alcohol use by youths aged 12 to 17 (in the past month)	5.5%	4.9%	4.7%
Cigarette smoking	28.5%	24.1%	20.5%
Smokeless tobacco use	8.5%	5.0%	3.0%
Marijuana	11.2%	13.2%	15.0%
Illicit drug use	14.2%	17.3%	19.4%
Misuse of Opioids	4.0%	4.4%	4.5%
Cocaine	1.1%	1.8%	2.1%
Crack	0.2%	0.3%	0.4%
Methamphetamine	0.7%	0.6%	0.4%

Source: Substance Abuse and Mental Health Services Administration (SAMHSA), Results from the 2016 National Survey on Drug Use and Health: Detailed Tables.

Rural Overdose Deaths

- In 2006 rates for rural areas surpassed those of urban areas
- 2015: rural rates 17/100,000, urban rate 16.2/100,000
- From 1999 to 2015 drug overdose deaths increased by 325% in rural areas compared to 198% in urban areas
- Majority of overdose deaths occur at home, long EMT transport times, lack of public access to EMT, increased number of basic EMT's who cannot give naloxone

- CDC MMWR Report October, 2017.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RI
NJ
DE
MD
DC
AK
HI
U.S. rate is 19.8 per 100,000 standard population.
Statistically lower than U.S. rate
Statistically the same as U.S. rate
Statistically higher than U.S. rate

Source: CDC

Rural America

- Certain rural areas disproportionally impacted
- Higher overdose rates
- Higher rates of opioid prescribing
- Physical jobs with more injuries and chronic pain
- Higher rates of NAS
- Increased incidence of Hepatitis C infection

- Recent CDC study demonstrated that those in rural counties had an 87 percent higher rate of receiving prescriptions than those in large metro counties, Athena health over 30,000 PCP's 9.6 percent to 5.2 percent. 14 rural counties were the among the 15 counties with the highest prescribing rates. https://www.cdc.gov/mmwr/volumes/68/wr/mm6802a1.htm?s_cid=mm6802a1_w https://jamanetwork.com/journals/jamapediatrics/fullarticle/2592302 NAS increase five fold between 2000-12 with an greater increase in rural areas. Incidence twice as high in rural areas, younger than 30, non urban white

Medication Assisted Treatment

"Access to medication-assisted treatment can mean [the] difference between life or death."

Michael Botticelli, October 23, 2014 Director, White House Office of National Drug Control Policy

National Academy of Sciences, Alan Leishner and Michelle Mancher, Medications for Opioid Use Disorder Save Lives. Medication based treatment for opioid use disorder, not a complementary or temporary aid

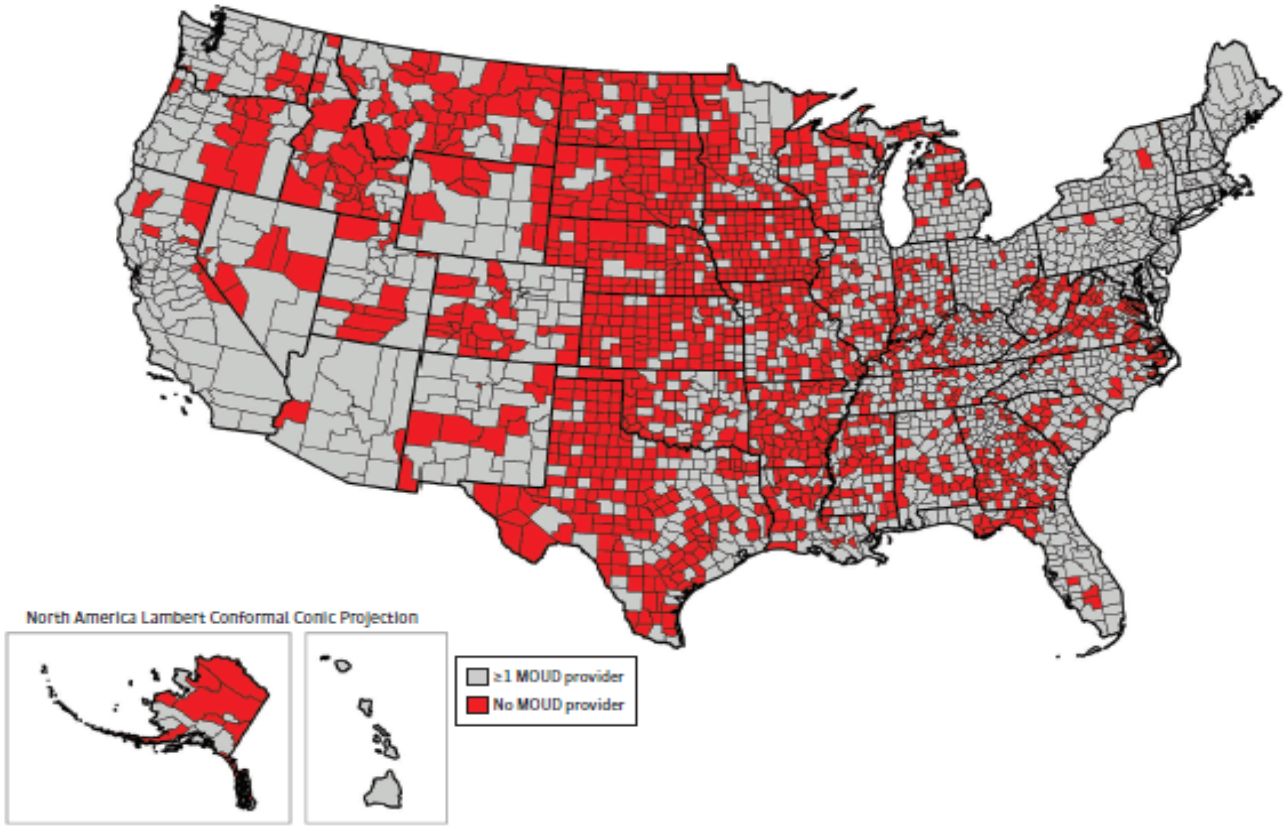
Medication Based Treatment

- Decrease overdose rates
- Increases retention in treatment
- Decreases illicit opioid use
- Improves social functioning
- Decreases transmission of infectious diseases
- Decreases criminal activity

Clinical Goals

- Immediate engagement and linkage to treatment
- Expanding access to treatment
- Co-location of medical and mental health services within addiction treatment services
- Enhancing recovery services for patients

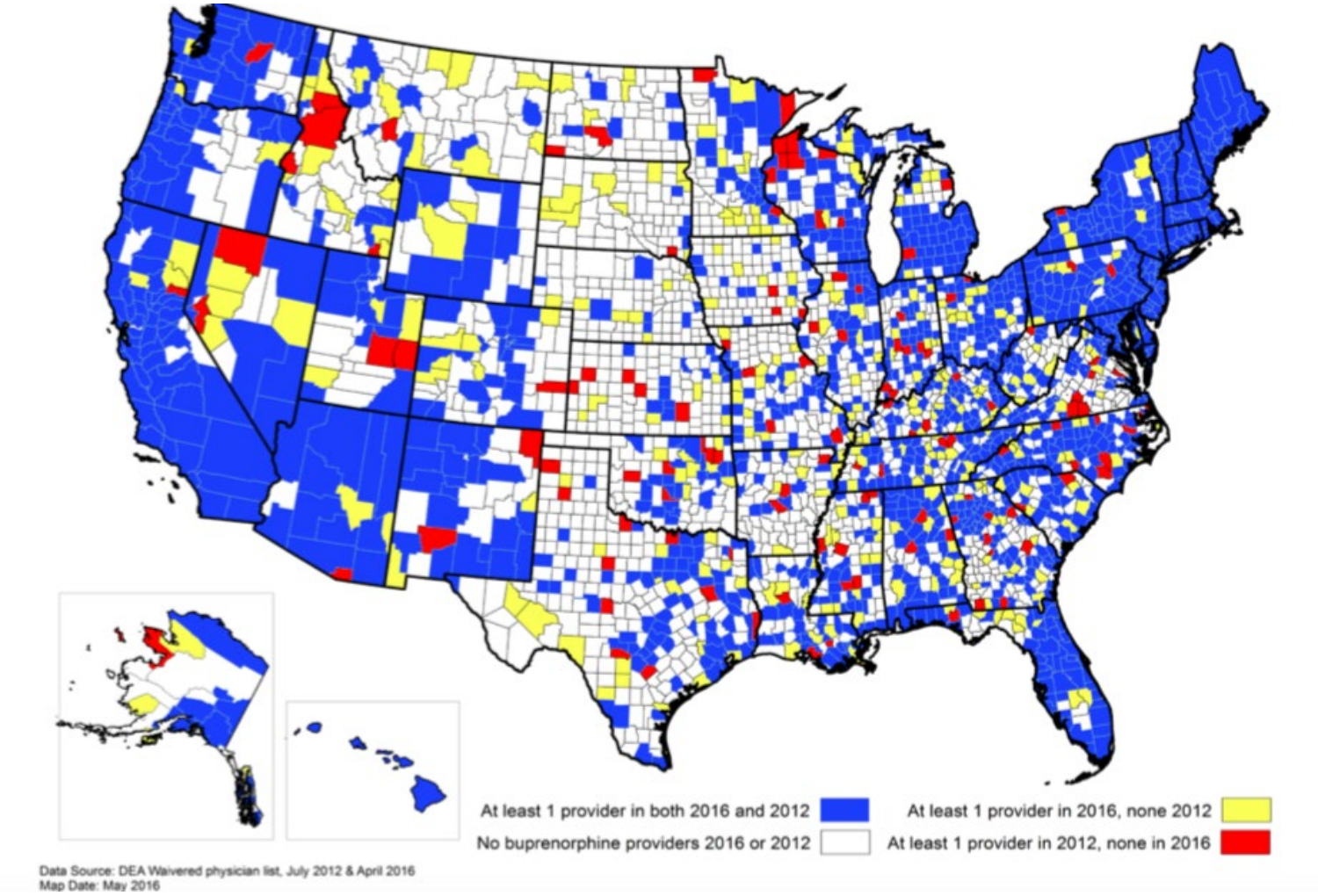
US COUNTIES LACKING ANY PUBLICLY AVAILABLE MEDICATION FOR OPIOID USE DISORDER--2017



Medication for opioid use disorder providers are defined to include publicly listed opioid treatment programs, buprenorphine-waivered clinicians, and/or extended-release naltrexone-prescribing clinicians in late 2017.

Haffajee, RL et al. JAMA Network Open 2019

Map of U.S. Buprenorphine Providers



Barriers to Medication Assisted Treatment in Rural Areas

- Geography/ transportation/weather
- Health workforce shortages
- Stigma
- Lack of insurance coverage
- Privacy issues/lack of anonymity

Barriers to Methadone Treatment in Rural Areas

- Lack of methadone programs/less than 5% in rural areas
- Methadone programs are highly regulated and require frequent attendance and daily dosing early in treatment
- Long travel time/high transportation costs
- Long wait lists

CDC 2017.

Barriers to Buprenorphine Treatment in Rural Areas: Availability

- Less than 3% of US physicians are waivered
- 52.5% of US counties have at least one waivered provider
- 60.1% of rural counties have no waivered providers (down from 67% in 2012)
- Many waivered providers treat many fewer patients than the maximum allowed or none at all

http://www.annfammed.org/content/15/4/359.full

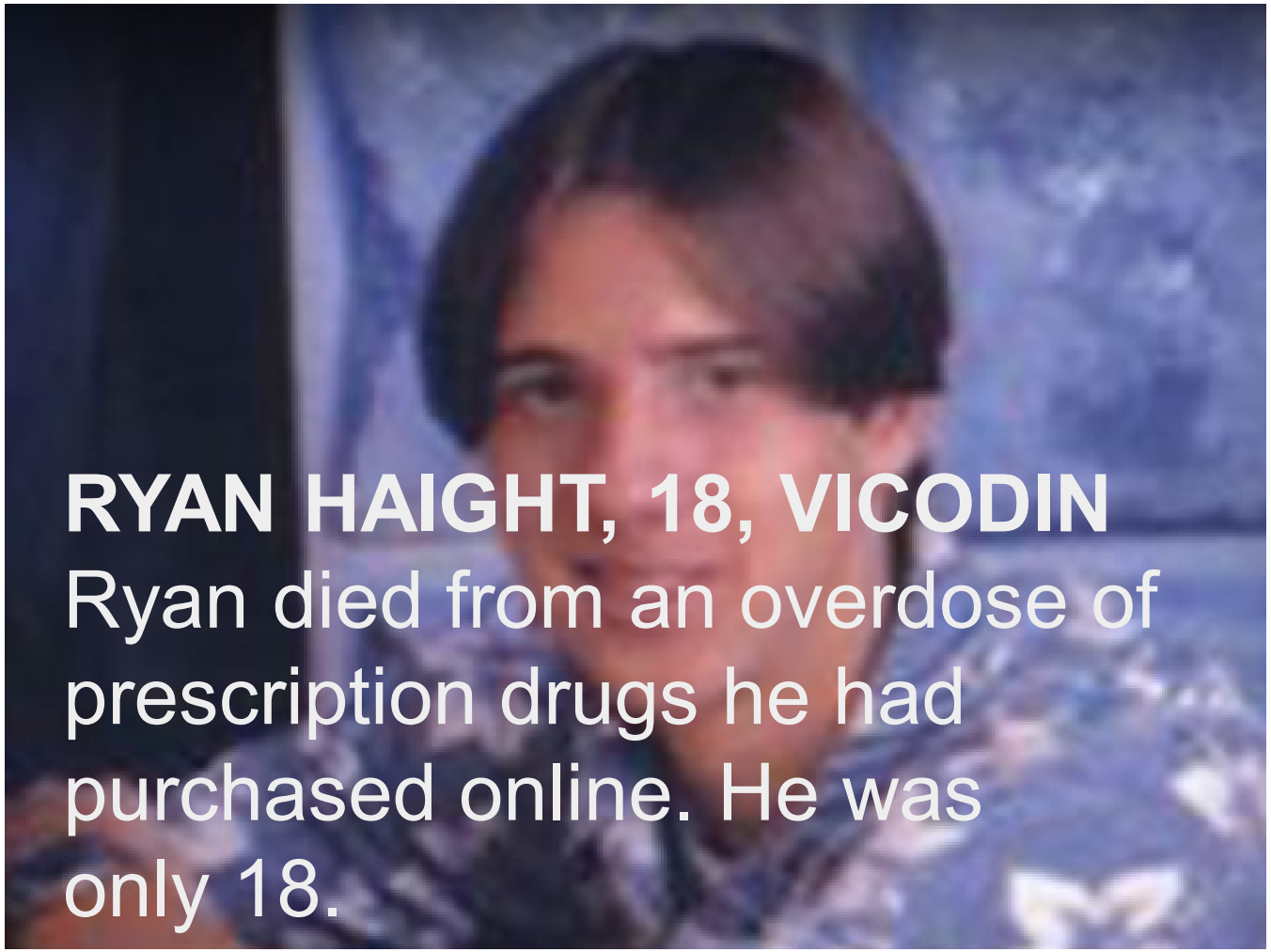
Barriers to Buprenorphine Tx in Rural Areas: Provider Factors

All

1. Time constraints
2. Diversion concerns
3. Lack of mental health, psychosocial support

Non-Prescribers

1. Lack of patient need
2. Resistance from practice partners
3. Lack of specialty back up for complex cases
4. DEA
5. Administrative/infrastructure
6. Lack of confidence


RYAN HAIGHT, 18, VICODIN
Ryan died from an overdose of prescription drugs he had purchased online. He was only 18.

Ryan Haight Act

- Ryan Haight Online Consumer Protection Act
- Amended the Controlled Substances Act to address the appropriate dispensing and prescribing of controlled substances by the internet.
- Targets Rogue “Form Only” Online Pharmacies
- Passed in 2008 and took effect in April 2009
- To prevent illegal distribution and dispensing of **controlled substances** via the internet

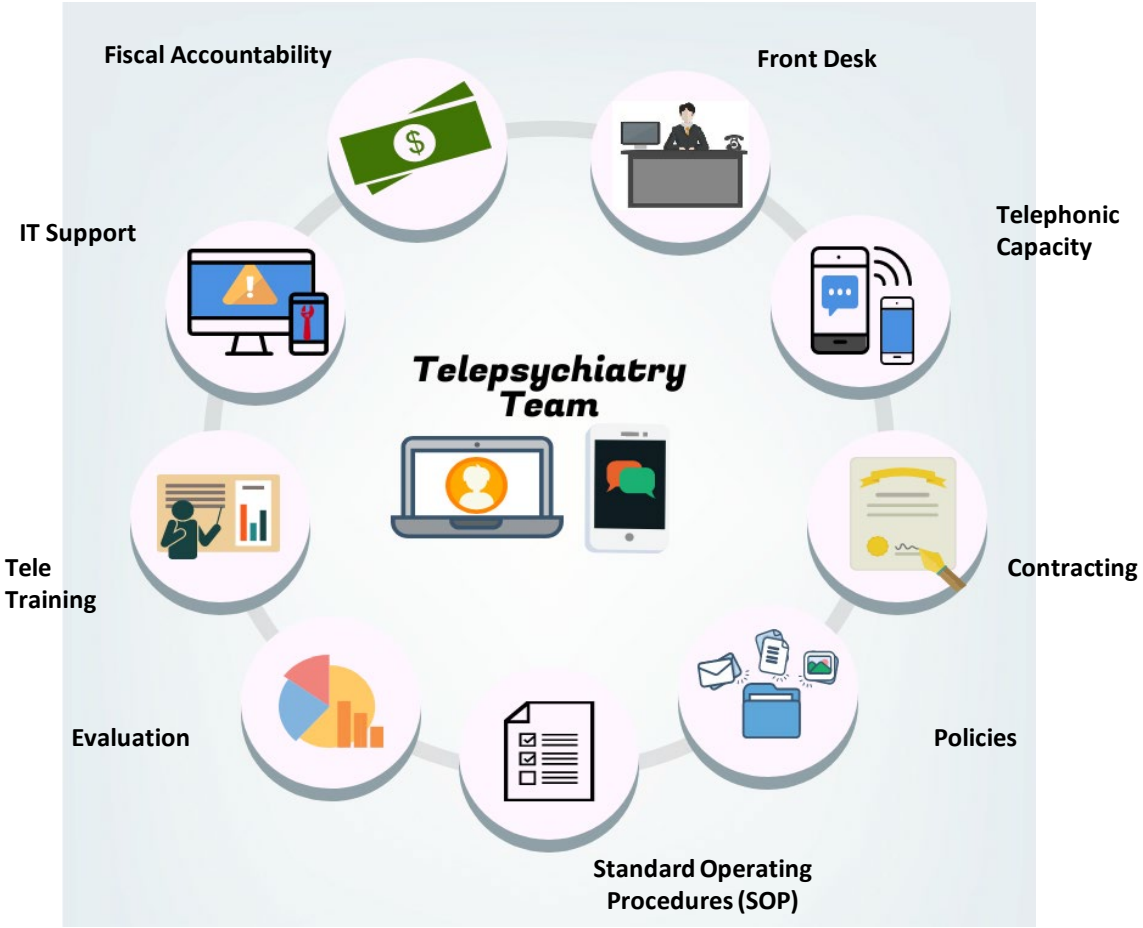
Ryan Haight Act

- No controlled substance may be delivered, distributed, or dispensed without a “Valid Prescription”
- “Valid Prescription” A prescription issued for a legitimate medical purpose in the usual course of professional practice
- A Prescription issued by a practitioner who has conducted. at least 1 “in-person medical evaluation” of the patient
- In-Person Medical Evaluation A medical evaluation that is conducted with the patient in the **physical presence** of the practitioner

Ryan Haight Act: Update

- Special Registration for Telemedicine Act of 2018
- Requires DEA to finalize regulations for special registration for providers to prescribe controlled substances via telemedicine without the need for an in-person exam
- A deadline of October 24,2019 for the completion of the new regulations

Centralized Infrastructure Functions



Rural Telemedicine Partnerships at University of Maryland

- Rural Health Departments
  - Caroline County (CCHD)
  - Garrett County (GCHD)
  - Eastern Shore Mobile Care Collaborative
- Rural OP/IOP/Residential Treatment
  - Wells House/Gale House
- Rural Nonprofit Outpatient Practice
  - Life's Energy Wellness Center Inc. (Talbot County)

Tele MAT Sites 2019

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Eastern Shore Mobile Care Collaborative

- New grant-funded initiative
- Increase engagement in addiction/overdose hotspots
- Direct referral source for local Emergency Departments
- Ability to collect urine toxicology, meet with peer, counselor, and nurse, and see MD via secure video link
- Active since 2/20/19

Caroline County Demographics

- Population 33,406 (20th out of 24 counties in Maryland)
- Caucasian 81.4%, Black 14.1 %
- Land Area 319.42 square miles (19th out of 24 counties)
- Population per square mile- 103.5
- Households with computers- 84.6%
- Households with broadband 76.5%


THE EASTERN SHORE
MOBILE CARE COLLABORATIVE
AT THE CAROLINE COUNTY
HEALTH DEPARTMENT
CAROLINE COUNTY
HEALTH DEPARTMENT
Caring for Caroline
211 Maryland
IN CRISIS? CALL 211, PRESS 1
Get Connected. Get Help.


CAROLINE COUNTY
HEALTH DEPARTMENT
Caring for Caroline
THE EASTERN SHORE
MOBILE CARE COLLABORATIVE
AT THE CAROLINE COUNTY
HEALTH DEPARTMENT
STAND UP
211 Maryland
IN CRISIS? C
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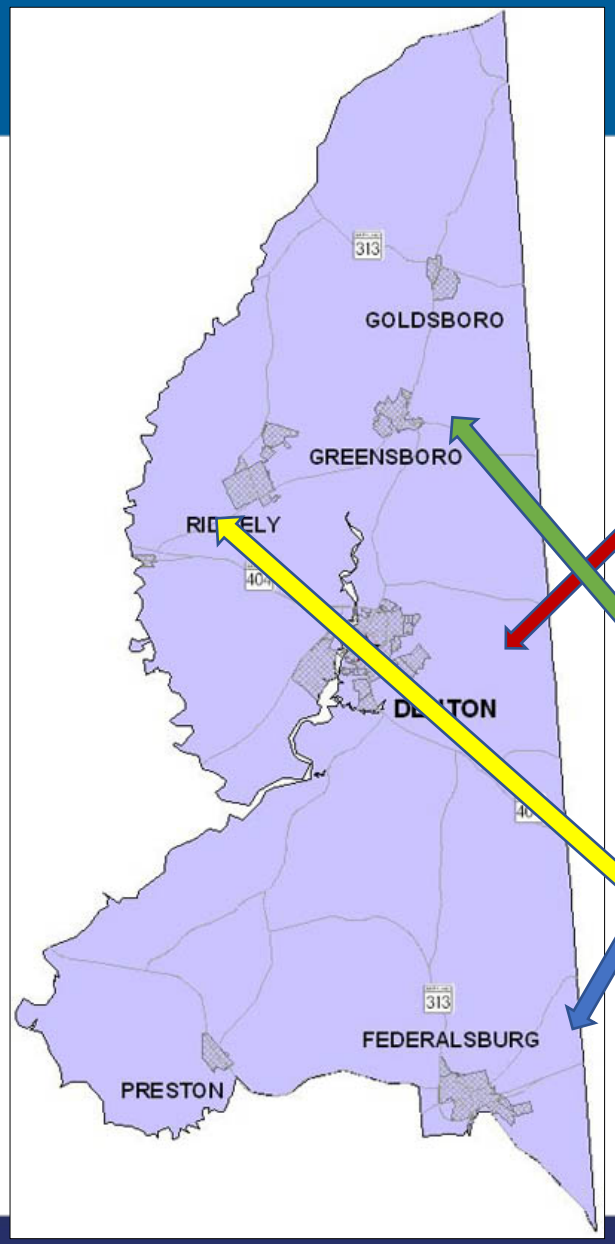
The Mobile Treatment Unit is currently serving patients in four different townships in the county: Denton, Federalsburg, Greensboro and Ridgely. Future plans include increasing service locations in Caroline County (pictured to the right) and throughout other counties within the Eastern Shore of Maryland.

After the implementation of the ESMCC program, patients have saved an **average of 9.93 miles** by traveling to a treatment site closest to them.



Map of Caroline County, MD

Dates the Mobile Treatment Unit Began Providing Services in the Following Cities:

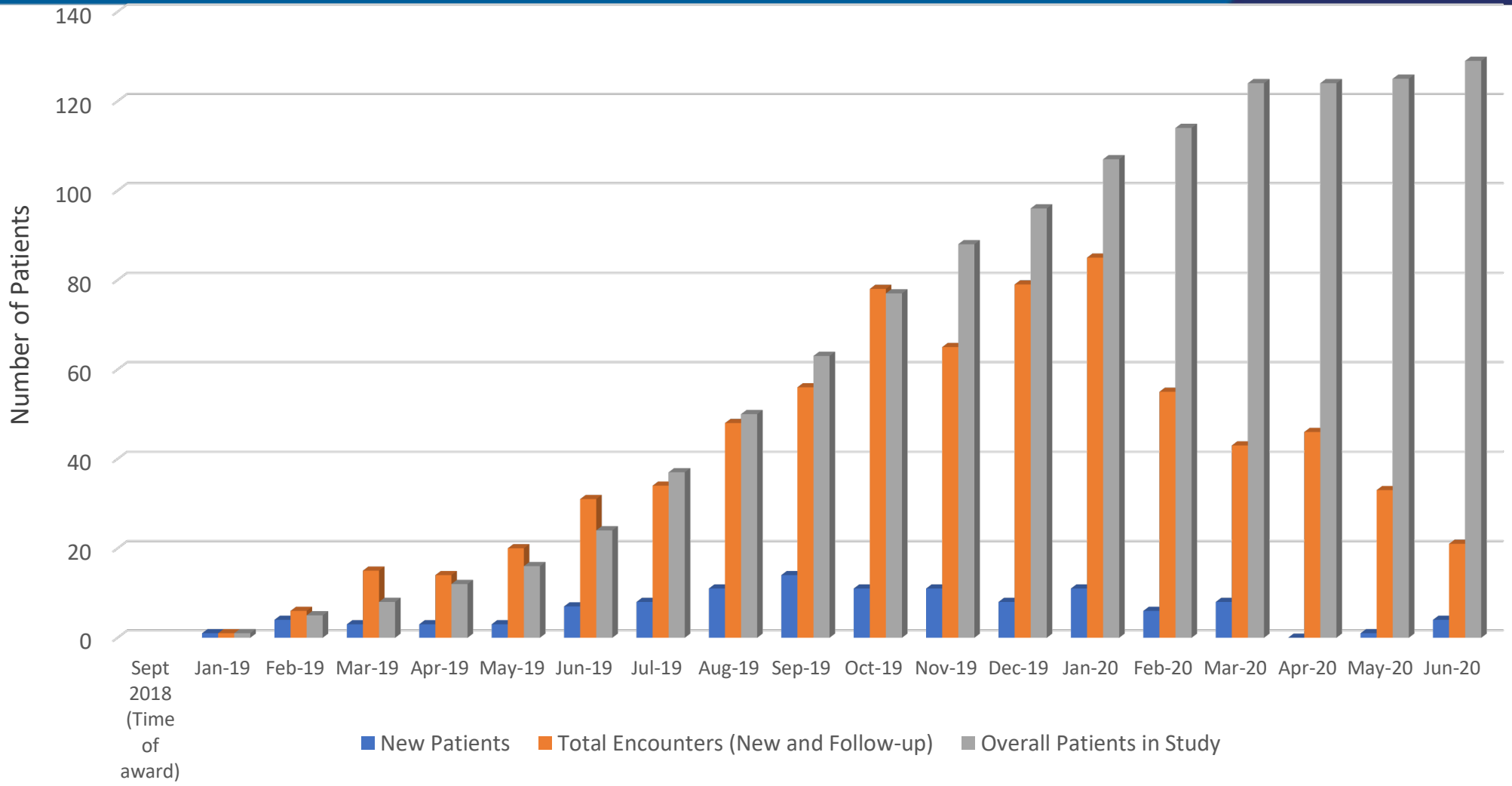
Denton, Maryland: **January 2019**

Federalsburg, Maryland: **June 2019**

Greensboro, Maryland: **October 2019**

Ridgely, Maryland: **February 2020**

MTU Patient Overview



Total Number of Patients who have been treated by a telemedicine provider between January 2019 and June 19, 2020: **129**

RV Technology

- Verizon JetPack MHS 900L Hotspot
- Netgear Wi-Fi extender with single ethernet jack for Poly Debut
- Poly Debut endpoint
- Endpoint is registered to Cisco Expressways for complete monitoring end to end
- Provider is able to call the RV at any location using Cisco DX-80 or Webex Teams at their desk or through a laptop.
- All video calls are encrypted using AES 128 bit encryption.
- Medical grade portable power system power Debut, wi-fi extender and TV.

Program Adaptations

- Increasing flexibility of scheduling
  - Desk-top set-up
  - System compatibility
  - EMR
- E-prescribing
- Expanding medication capabilities (ie. Vivitrol)
- Billing

LEVERAGING FOR SUSTAINABLE GROWTH

- 2018-2020--CareFirst*: "Expanding Access to Medication-Assisted Treatment in Rural Areas with the Use of Telemedicine"*, $220,000
- 2018-2021--HRSA: *Evidence-Based Tele-Behavioral Health Network Program,* $900,000
- 2020-2022--Foundation for Opioid Response Efforts (FORE): *Treatment with Buprenorphine through Telemedicine in a Rural Criminal Justice System*, $600,000

Future Directions

Adapting to other clinical models

- Mobile MAT/ HRSA Grant
- In-home treatment (for patient)
- Integration of telemedicine with Emergency Departments, EMT's and the criminal justice system
- Role in OTPs

- Development of evidenced based standard operating procedures

- Enhancement of consultation/supervision capability
  HUB and Spoke Model

- Integration of infectious disease treatment

OSU Telemedicine

Madhuri J. Lad, DO, FACOI, AAHIVS

Assistant Medical Director

Oklahoma State University Internal Medicine Specialty Services

OSU Internal Medicine Specialty Services Clinic

*Established in September 1996 by Thomas Stees, DO

*Cared for over 3000 HIV-positive persons since 1996

*Coverage of the eastern half of the state

Oklahoma Service Areas

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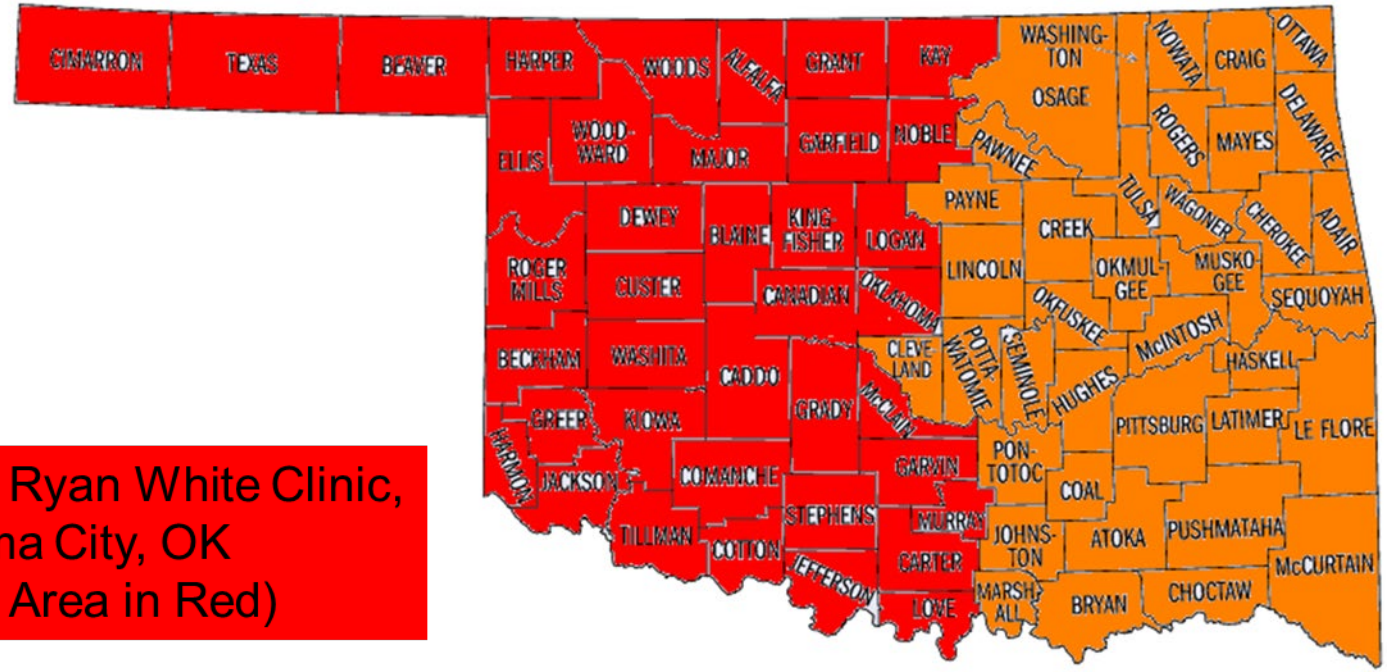
OSU-CHS Ryan White Clinic, Tulsa, OK
(Service Area in Orange)



OUHSC Ryan White Clinic,
Oklahoma City, OK
(Service Area in Red)

Telemedicine

Patient Case

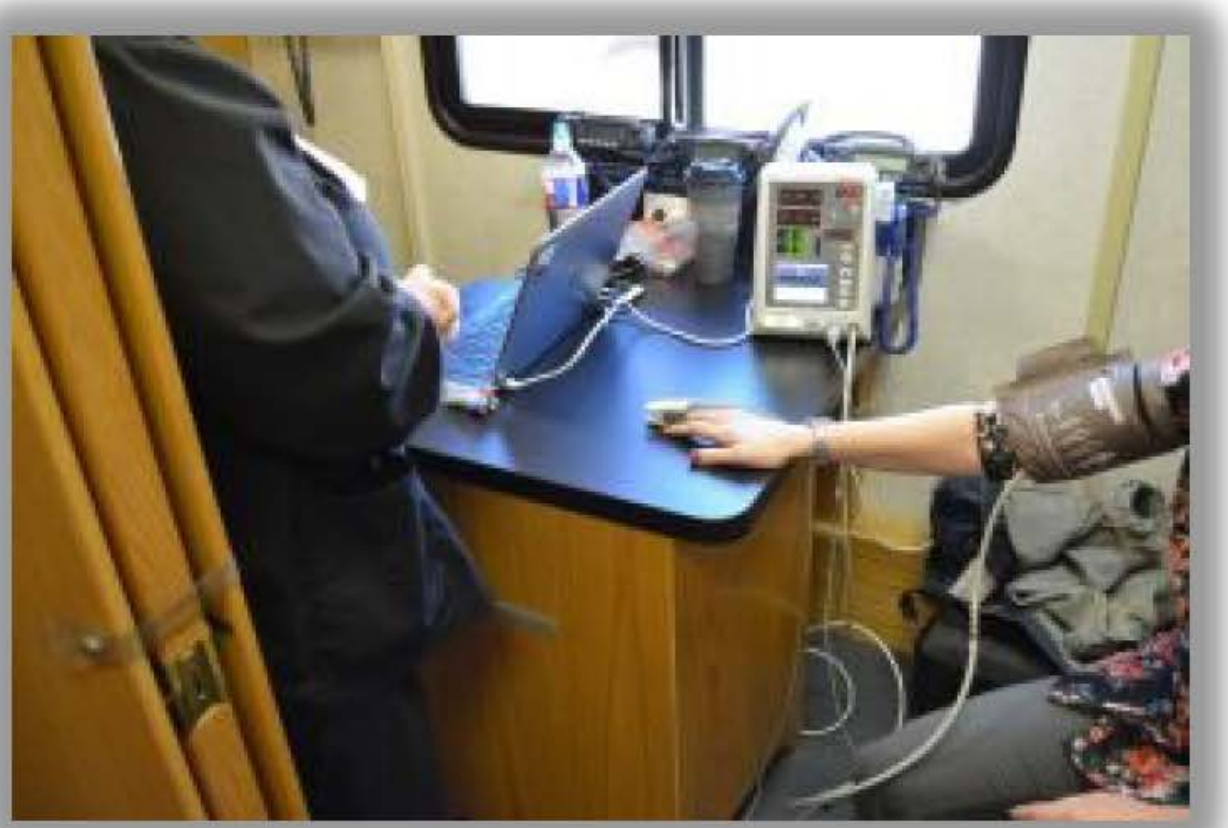
- 55M, HIV-positive in Poteau,OK
- Barrier - transportation
- Treated with Reyataz/Norvir/ Descovy
- CD4=300, VL<20 (scanned)
- Cough – Azithromycin and Flonase prescribed yesterday
- Rash – “itchy spot” on right leg
- Telemed appt
- Labs & appt in Poteau
- Rx refills e-scribed
- Meds/labs reviewed with pt
- Interaction between Flonase and Norvir discussed
- Stethoscope – lungs clear
- Dermascope used to diagnose and treat tinea corporis

Barriers to HIV Care

- Mental Health
- Substance abuse
- Nutrition
- **Transportation**
- Housing

Mobile Telemedicine Clinic

CENTER FOR RURAL HEALTH



Comparison: Polycom vs. Zoom

POLYCOM

- Expensive $4000-$5000 for unit and annual fee
- High quality camera
- More difficult set-up and use
- Requires updates
- Limited use

ZOOM

- Cost effective
- Easy to use
- Use on desktop, laptop, tablet, or cell phone
- Less equipment
- Multi-purpose platform


JEDMED
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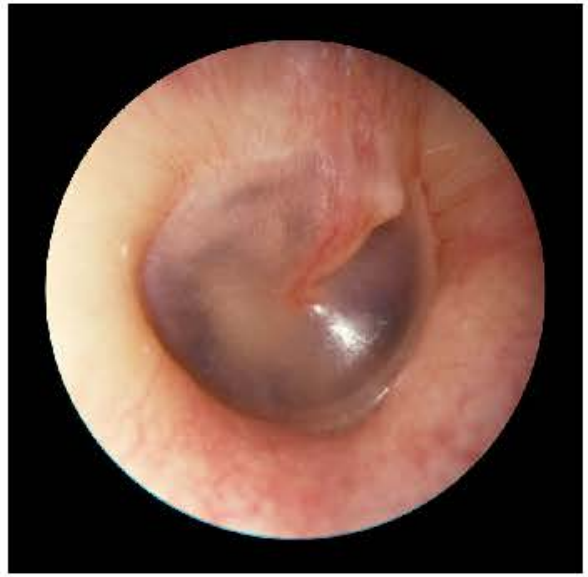
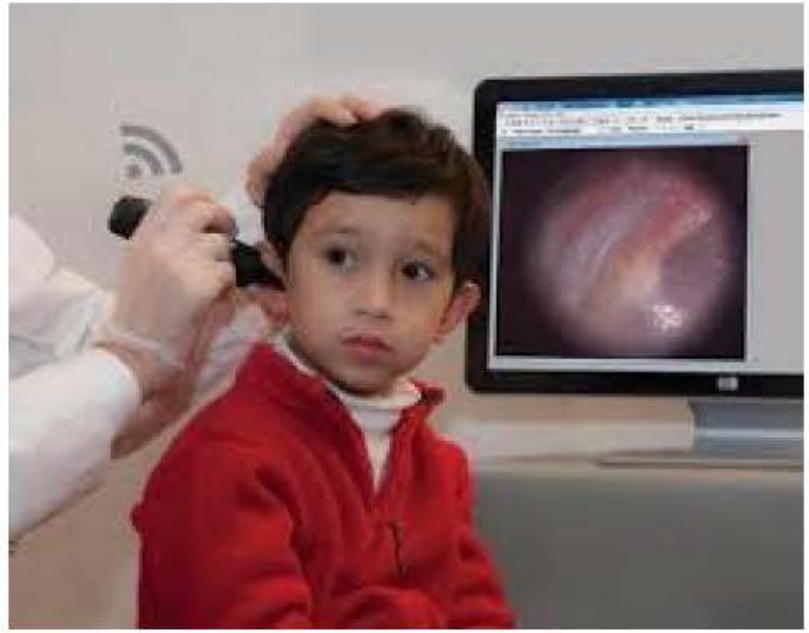
4/4
horus
SCOPE



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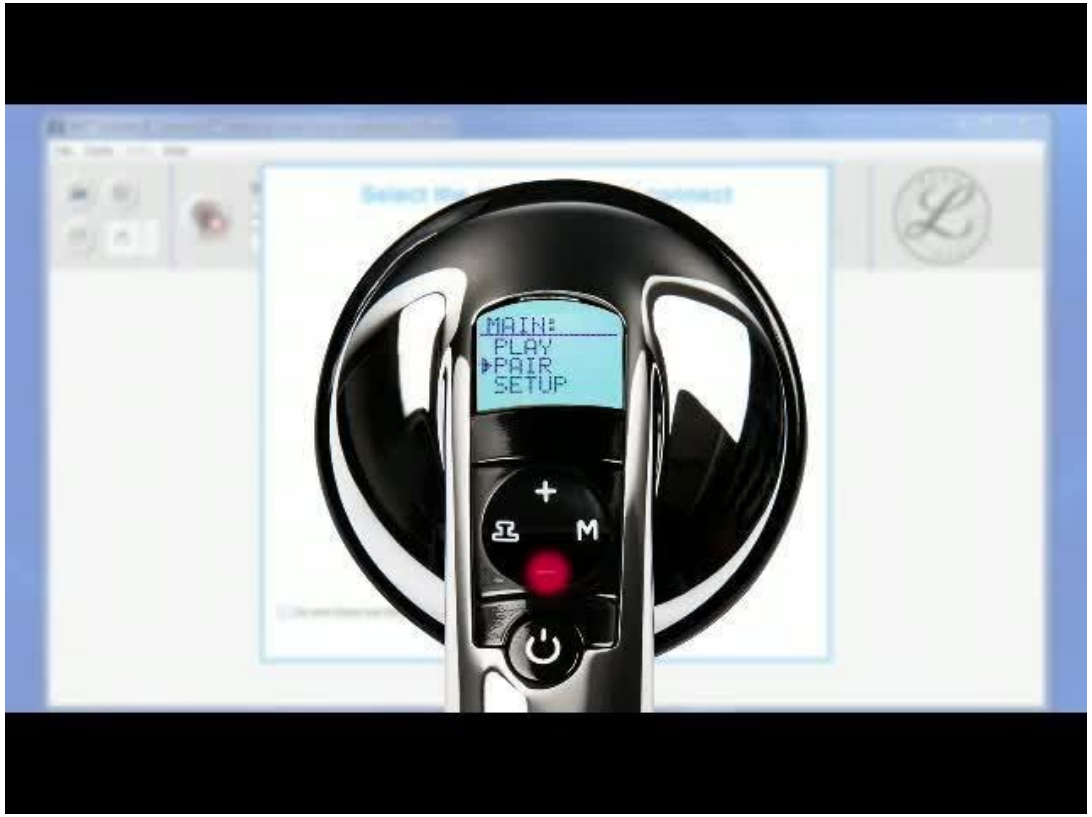
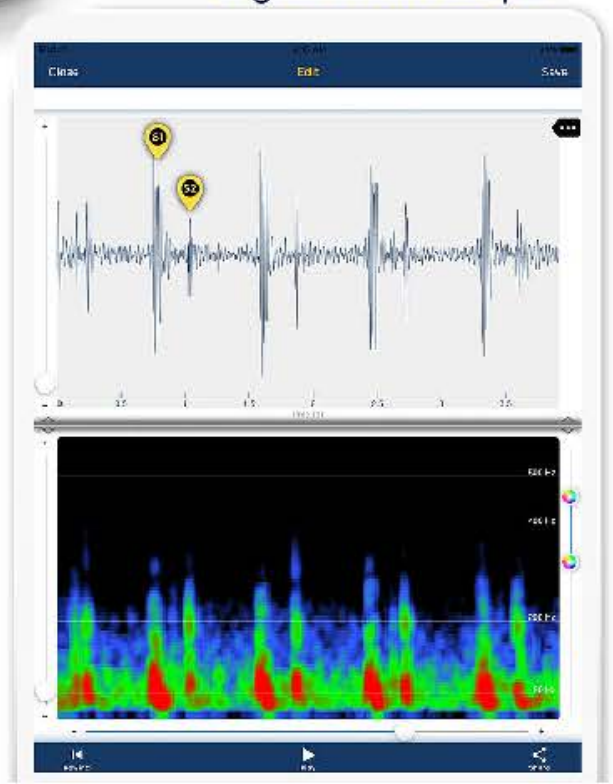
STETHOSCOPE

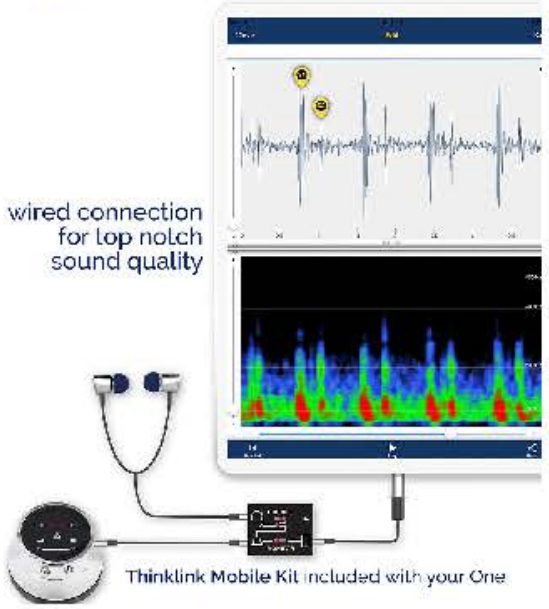


CAPTURE SOUND
from your Thinklabs One Digital Stethoscope



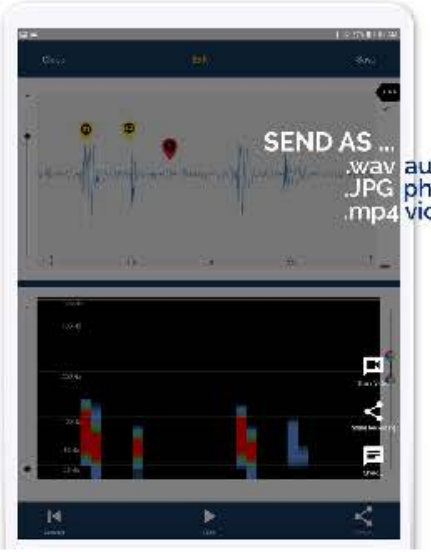
RECORD AND SAVE
Save to your mobile device

wired connection for top notch sound quality



Thinklink Mobile Kit included with your One

SHARE SOUND
through email or messaging apps...



Thinklabs
Digital Stethoscopes

Staff

- **Telemedicine bus driver** requires a commercial driver's license and competent with technology of equipment, software, and connectivity
- **Nurse** required for rooming (vitals, med rec, PHQ-9) and needs to be competent with equipment. Documentation in EMR.
- **Physician** needs to be competent with the equipment and coding

Challenges

- Weather or mechanical issues for bus, maintenance and fuel costs
- Wifi and stethoscope connectivity
- Software updates
- Inexperienced staff on telemedicine equipment
- Cancelled appointments or “no shows”
- Secure site location of bus & Storage of bus when not in use
- Referrals in rural areas
- Time spent driving to and from location
- Inefficient use of time of bus driver/IT and nurse

Overcome Challenges

- Reschedule due to weather or mechanical issues for telemed bus
- Wifi hotspot or direct cable connection to local network
- Use of cell phones if Wifi connectivity issues
- Anticipation of software updates
- Use of earbuds instead of stethoscope improved sound/connection
- Education of staff on telemedicine equipment
- Secure and discrete location of bus and test signal strength
- Contract with hospital for use of building space for telemedicine

PROS AND CONS OF TELEMED

PROS

- Convenience
- Affordable
- Saves time and transport

CONS

- Connectivity issues
- Loss of personal touch
- Difficult for complicated cases
- Limited physical exam

Thank you to my telemedicine staff!

Madhuri J. Lad, DO, FACOI, AAHIVS

Assistant Medical Director

Oklahoma State University Internal Medicine Specialty Services