



UNIVERSITY *of* MARYLAND
SCHOOL OF MEDICINE

The Role of Telemedicine in Expanding Access to MOUD

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Objectives

- Identify factors leading to the expansion of the delivery of MOUD via telemedicine
- Describe innovative Tele MOUD implementation strategies to reach underserved individuals
- Describe the factors impacting the effective implementation of Tele MOUD underserved rural areas including carceral settings



Opioid Overdose Deaths

Opioid overdose deaths have totaled more than 1 million since 1999

70% of overdose deaths are directly related to opioids

Overdose deaths peaked in 2022 at 111,029

In 2023 there were 107,543 overdose deaths. a decrease of 3%

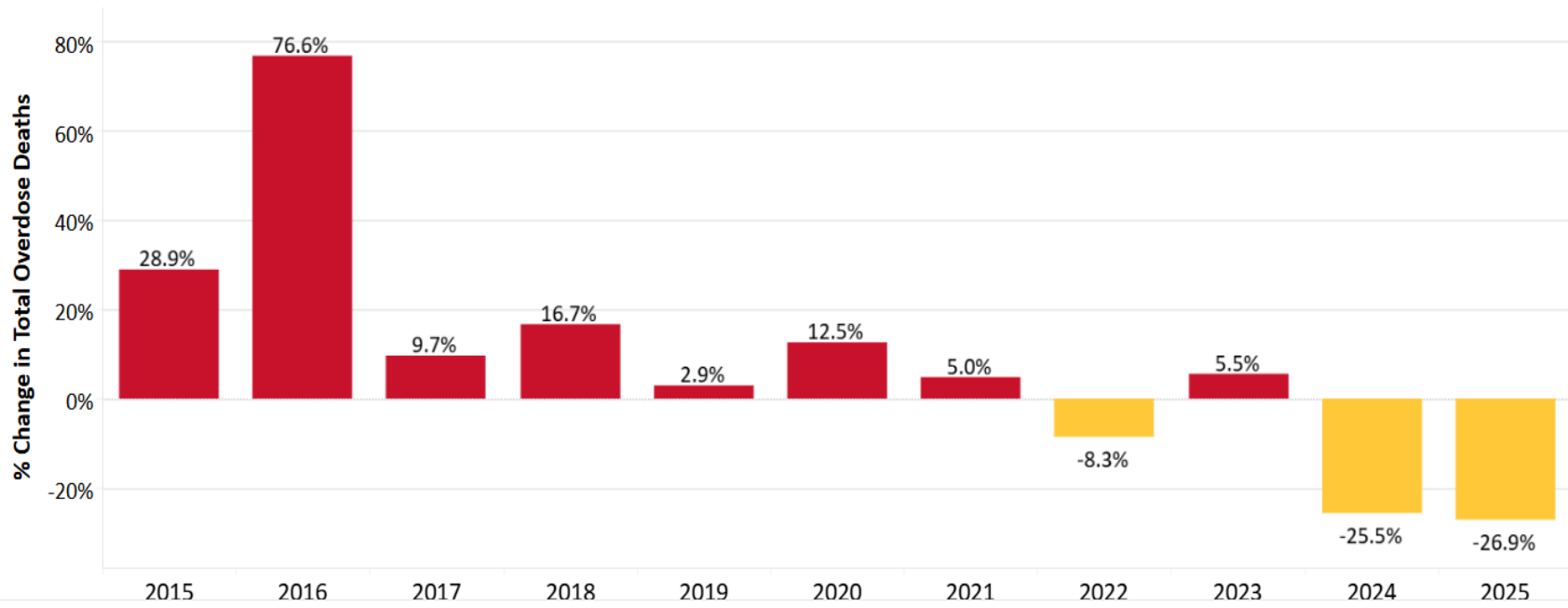
In 2024 there were 80,391 overdose deaths a decrease of 27%, similar numbers to pre-covid rates

As of August 2025, estimated annual overdose deaths dropped to approximately 73,000, down from over 92,000 in the previous 12-month period



Maryland Overdose Deaths

Year to Year Comparison of Percent Change in Total Overdose Deaths

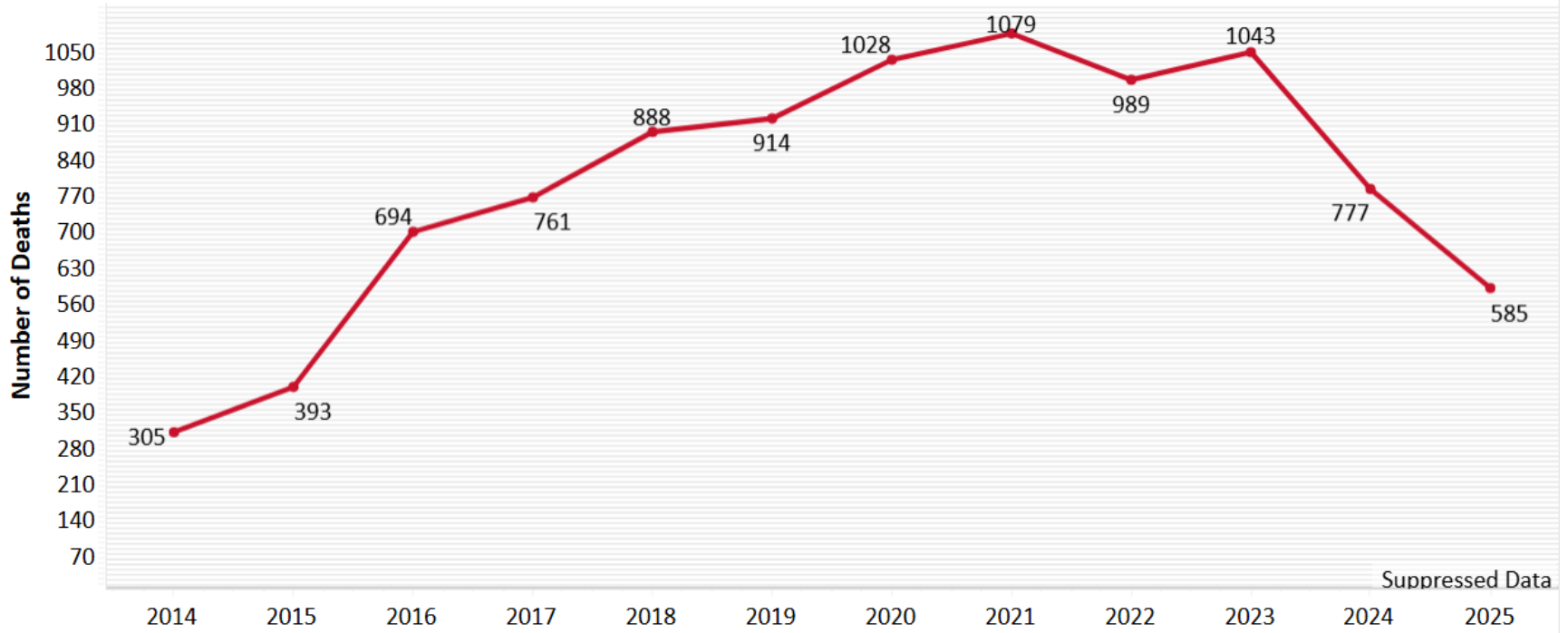


Note. Percent Change refers to the process of comparing the final totals of overdose deaths for one year against the previous year. A negative percentage indicates fewer deaths than the previous year, while a positive percentage indicates more.



Baltimore Overdose Deaths

Total Overdose Deaths Over Time





Medications for Opioid Use Disorder

Combination of medications with
counseling and behavioral therapies to treat
substance use disorders



MOUD

- Increases retention in treatment
- Decreases illicit opioid use
- Decreases rate of overdoses by 50-80%
- Improves social functioning
- Decreases transmission of infectious diseases
- Decreases criminal activity



MOUD's Impact on Mortality in Opioid Users

- Compared to patients receiving MOUD, untreated patients with OUD have at 1 year:
 - >2.5 X all cause mortality
 - > 8 X overdose mortality



MOUD

Recommended as treatment for opioid use disorders by all major health organizations following:

- American Society of Addiction Medicine(ASAM)
- World Health Organization (buprenorphine and methadone considered essential medications)
- United Nations
- United States Federal Government



Medication Based Treatment

Only a small percentage of Americans with OUD who could benefit from medication-assisted treatment are receiving it



Medication Treatment for OUD Should Not Be Delayed

- Initiation of medication treatment should not be delayed while completing initial assessment and intake¹
- Medication therapy should not be contingent upon participation in behavioral therapy^{1,2}
- Both office-based and home buprenorphine induction are safe and effective¹
- Patients seeking addiction treatment are 7 times more likely to be engaged if they are seen on the same day compared to waiting 2+ days³

1. National Academies of Sciences, Engineering, and Medicine (ASAM) National Practice Guideline for the Treatment of Opioid Use Disorder: 2020 Focused Update. *J Addict Med.* 14(2S Suppl 1):1-91

2. National Academies of Sciences, Engineering, and Medicine 2019. Medications for Opioid Use Disorder Save Lives. Washington, DC: The National Academies Press. <https://doi.org/10.17226/25310>.

3. Roy PJ, Choi S, Bernstein E, Walley AY. Appointment wait-times and arrival for patients at a low-barrier access addiction clinic. *J Subst Abuse Treat.* 2020 Jul;114:108011. doi: 10.1016/j.jsat.2020.108011. Epub 2020 Apr 22. PMID: 32527508.



Barriers To Accessing Evidence-Based Treatment

- 76% of patients with any SUD received no treatment in 2022¹
 - Only ~18% of patients with OUD received any MOUD
- Barriers:
 - Gaps in knowing where to go for treatment^{1,2}
 - 52.2% of those seeking treatment reported not knowing where to go in 2022
 - Difficulty accessing care^{1,2}
 - Long wait times^{1,2}
 - Pennsylvania patients can wait up to 3 weeks for MOUD treatment³
 - Geographical distance from treatment providers^{1,2}
 - Stigma¹
 - 46.1% reported concern about what others would think or say in 2022

1. Substance Abuse and Mental Health Services Administration. (2023). *Key substance use and mental health indicators in the United States: Results from the 2022 National Survey on Drug Use and Health* (HHS Publication No. PEP23-07-01-006, NSDUH Series H-58). Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. <https://www.samhsa.gov/data/report/2022-nsduh-annual-national-report>
2. Hall NY, Le L, Majmudar I, Mihalopoulos C. Barriers to accessing opioid substitution treatment for opioid use disorder: A systematic review from the client perspective. *Drug Alcohol Depend.* 2021 Apr 1;221:108651. doi: 10.1016/j.drugalcdep.2021.108651. Epub 2021 Feb 26. PMID: 33667783.
3. Kawasaki S, Francis E, Mills S, Buchberger G, Hogentogler R, Kraschnewski J. Multi-model implementation of evidence-based care in the treatment of opioid use disorder in Pennsylvania. *J Subst Abuse Treat.* 2019 Nov;106:58-64. doi: 10.1016/j.jsat.2019.08.016. Epub 2019 Aug 28. PMID: 31540612; PMCID: PMC7194237.



Availability of Medication Based Treatment in Rural Areas

- In 2020
 - 45% of counties had a facility offering any MOUD.
 - 9% of counties had a facility offering all forms of MOUD.
 - 83% of individuals are 10 miles from a facility offering MOUD treatment.
- More population dense areas have higher rates of facilities providing MOUD.
- Driving times to treatment providers urban vs rural
 - 12 to 61 minutes for OTP
 - 5 to 21 minutes for buprenorphine provider



Telehealth as a Solution

- Utilization of telemedicine expanded 63-fold during the Covid-19 public health emergency¹
- Telemedicine MOUD treatment outcomes are similar to traditional care^{2,3,4}
- Programs to provide rapid access to buprenorphine treatment were successfully implemented in several states during the public health emergency with good outcomes⁵
- Retention in treatment and rate of opioid overdose were improved among Medicare patients who accessed telemedicine OUD treatment⁶

References on following slide



References for Telehealth as a Solution Slide

1. Samson, L., Tarazi, W., Turrini, G., Sheingold, S., Medicare Beneficiaries' Use of Telehealth Services in 2020 – Trends by Beneficiary Characteristics and Location (Issue Brief No. HP-2021- 27). Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. December, 2021.
2. Weintraub E, et al. Expanding access to buprenorphine treatment in rural areas with the use of telemedicine. *The American Journal on Addictions*. 2018; 27: 612-617
3. Zheng W, et al. Treatment outcome comparison between telepsychiatry and face-to-face buprenorphine medication-assisted treatment (MAT) for opioid use disorder: A 2-Year retrospective data analysis. *J Addict Med*. 2017; 11(2): 138-144
4. Hailu R, Mehrotra A, Huskamp HA, Busch AB, Barnett ML. Telemedicine Use and Quality of Opioid Use Disorder Treatment in the US During the COVID-19 Pandemic. *JAMA Netw Open*. 2023 Jan 3;6(1):e2252381. doi: 10.1001/jamanetworkopen.2022.52381. PMID: 36692880..
5. Samuels EA, Khatri UG, Snyder H, Wightman RS, Tofighi B, Krawczyk N. Buprenorphine Telehealth Treatment Initiation and Follow-Up During COVID-19. *J Gen Intern Med*. 2022 Jan 3:1–3. doi: 10.1007/s11606-021-07249-8. Epub ahead of print. PMID: 34981357; PMCID: PMC8722662.
6. Jones CM, Shoff C, Hodges K, Blanco C, Losby JL, Ling SM, Compton WM. Receipt of Telehealth Services, Receipt and Retention of Medications for Opioid Use Disorder, and Medically Treated Overdose Among Medicare Beneficiaries Before and During the COVID-19 Pandemic. *JAMA Psychiatry*. 2022 Oct 1;79(10):981-992. doi: 10.1001/jamapsychiatry.2022.2284. Erratum in: *JAMA Psychiatry*. 2022 Oct 1;79(10):1048. PMID: 36044198; PMCID: PMC9434479.



Review of Telehealth for MOUD

- Incorporation of telehealth technology for medication treatment of OUD is associated with:
 - Higher patient satisfaction
 - Comparable retention rates
 - Overall reduction in healthcare costs
 - Increased access to and utilization of buprenorphine



Timeline of Telehealth Regulation and Innovation





Regulatory Updates

- Proposed Special Registration for Telemedicine
 - Proposed and remains under public comment and review
 - Aimed at long-term telemedicine providers
 - 3 categories of registration
 - Telemedicine Prescribing Registration
 - Advanced Telemedicine Prescribing Registration
 - Telemedicine Platform Registration
 - Separate state registration managed by DEA
 - PDMP
 - 3 years of state review
 - Subsequent national PDMP



This document is scheduled to be published in the Federal Register on 01/17/2025 and available online at <https://federalregister.gov/d/2025-01099>, and on <https://govinfo.gov>

BILLING C

DEPARTMENT OF JUSTICE

Drug Enforcement Administration

21 CFR Parts 1300, 1301, 1304, and 1306

[Docket No. DEA-407]

RIN 1117-AB40

Special Registrations for Telemedicine and Limited State Telemedicine Registrations

AGENCY: Drug Enforcement Administration, Department of Justice.

ACTION: Notice of proposed rulemaking.

<https://public-inspection.federalregister.gov/2025-01099.pdf>. Accessed 2/20/2026





Regulatory Updates

- Final buprenorphine rule postponed to 12/31/2026
 - Addresses Bridge Clinic model
 - Up to 6 calendar months of buprenorphine prescriptions following audio-only encounters
 - After 6 months, either in-person or video telemedicine encounter is required
 - Provider required to check PDMP of state in which the patient is located
 - **Pharmacist verification of identity**



This document is scheduled to be published in the Federal Register on 03/24/2025 and available online at <https://federalregister.gov/d/2025-05007>, and on <https://govinfo.gov> le 4410-09-P

DEPARTMENT OF JUSTICE

Drug Enforcement Administration

21 CFR Part 1306

[Docket No. DEA-948; DEA-407VA]

RIN 1117-AB78; 1117-AB40; 1117-AB88

DEPARTMENT OF HEALTH AND HUMAN SERVICES

42 CFR Part 12

Expansion of Buprenorphine Treatment via Telemedicine Encounter and Continuity of Care via Telemedicine for Veterans Affairs Patients

AGENCY: Drug Enforcement Administration, Department of Justice; Substance Abuse and Mental Health Services Administration, Department of Health and Human Services.

ACTION: Final rule.

<https://www.govinfo.gov/content/pkg/FR-2025-03-24/pdf/2025-05007.pdf> Accessed 2/20/2026





DEA's Buprenorphine Final Rule

Proposed rules for online buprenorphine prescriptions

New regulations expands buprenorphine treatment via telemedicine and will allow patients to receive a 6-month supply of buprenorphine, through an audio-only or audio-video telemedicine consultation with a provider.

Under the rule:

- DEA-registered providers must review the PDMP database of the state where the patient is located.
- An initial six-month supply of buprenorphine can be prescribed, divided across several prescriptions.
- Subsequent prescriptions require either an in-person medical exam or meeting one of the seven exceptions under the [Ryan Haight Act](#).



MOUD Telemedicine Models

- Clinic Hybrid Model
- Telephone Access Line
- Bridge Clinic Model
- Mobile Telehealth
- Jail-based Telemedicine
- Community-based Treatment



Bridge Clinic Model

Bridge Clinic = rapidly accessible, short-term service where practitioners can prescribe buprenorphine as “bridge” MOUD treatment

Telemedicine Bridge Clinic = services are provided without initial in-person exam

Bridge Clinic models (both in-person and virtual) have been shown to be effective and accepted by patients¹

1. Taylor JL, Wakeman SE, Walley AY, Kehoe LG. Substance use disorder bridge clinics: models, evidence, and future directions. *Addict Sci Clin Pract.* 2023 Apr 14;18(1):23. doi: 10.1186/s13722-023-00365-2. PMID: 37055851; PMCID: PMC10101823.



How Does It Work?

Created an Epic® schedule template within UPMC EHR

- Schedule with near real-time visits as opposed to on demand
- Most schedule within 2 hours of initial contact
- Coordinated with UPMC central registration/scheduling professionals

Patients scheduled for 20-minute time slots with physician/CRNP

Identity verified

- Registration staff
- PDMP
- EHR records and demographics
- Coordination with pharmacy if needed

The screenshot shows the Epic EHR interface for a schedule template. The top navigation bar includes the Epic logo, the text "TOXICOLOGY DDAP - sxepicap1004/PRDAPP2 - UPMC Production - MICHAEL J LYNCH - LYNCMJ", and a search bar. Below the navigation bar, there are several tabs: "Schedule", "In Basket", "Chart Review", "Encounter", "Tel Call", "Refill Enc", "PA-PDMP", "Patient Lists", "Clinical Links", "Live Help Now", "Support", and "Dx Lookup". The "Schedule" tab is active, showing a table header with columns: "P.. P.. V...", "Time Status", "Patient", "Type", "Enc Comme...", "Notes", "Provider / Department", and "Disability Type". The table currently shows "Total: 0" patients.





Overview of First 20,121 Patient Encounters



April 27, 2020 to February 17, 2025



~7,739 Unique Patients
66/67 PA Counties

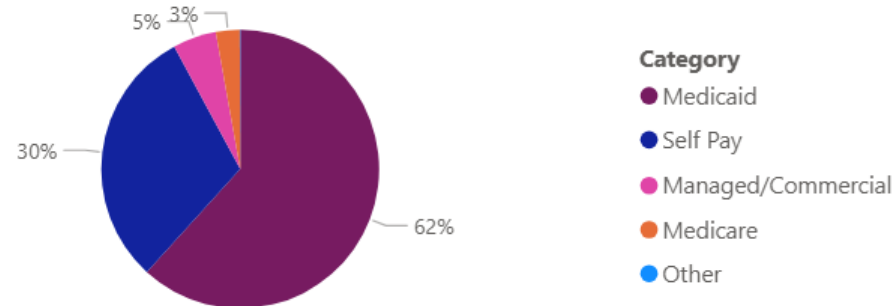
- Age Range: 17-79
- ~57% Male
- ~43% Female



>95% audio/telephone only visits

Primary Payor Type (92% Medicaid or Uninsured)

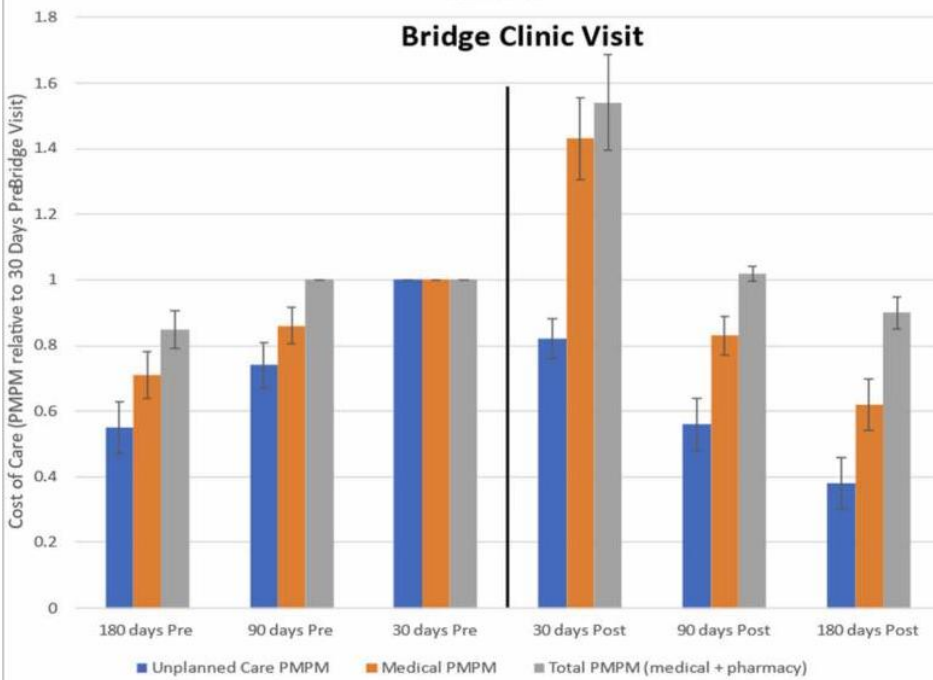
Payor Category % of Total Charges by Category





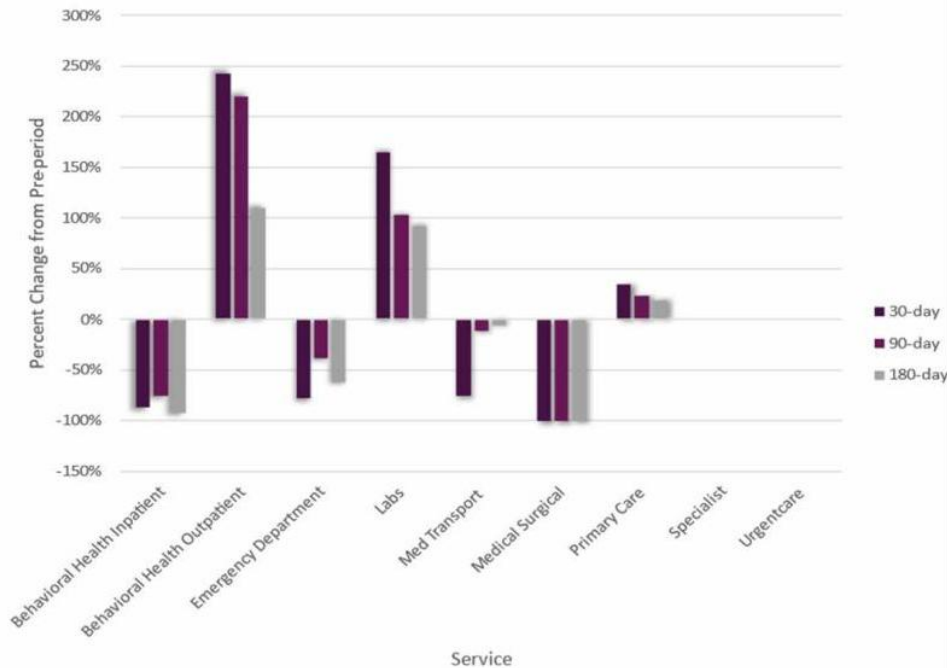
Healthcare Utilization and Costs

Cost of Care Compared to 30 Days pre-Bridge Clinic



a. Costs of care (PMPM) relative to 30 days Pre-Bridge Clinic Engagement

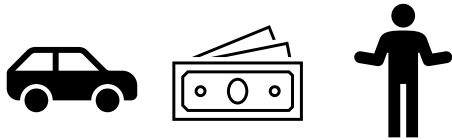
Changes in SUD-Specific PMPM Compared To Pre-Bridge Clinic By Service Category



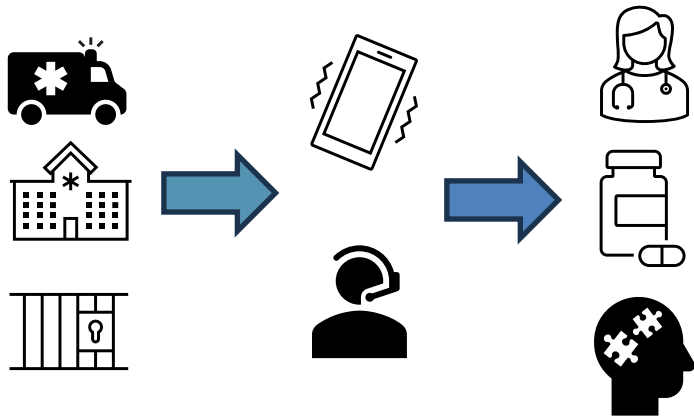
b. Percent change in SUD-specific care costs after Bridge Clinic engagement by service category

A Telemedicine Bridge Clinic Increases Buprenorphine Engagement and Reduces ED Visits among Medicaid Patients with Opioid Use Disorder

Multiple barriers to OUD care limit access especially in vulnerable populations



Comparison of a telemedicine bridge clinic linking patients to longitudinal care with traditional office-based OUD care among Medicaid beneficiaries in Pennsylvania.



Outcomes

Access to Buprenorphine

- 91.3% (Bridge) vs. 73.6% (Traditional) filled buprenorphine Rx within 1 month
- 6.9% Increase in Proportion of Days Covered

Emergency Department Utilization

- 18.2% reduction in ED visits among Telemedicine Bridge Clinic patients

Overall Cost of Care

- 5% lower Per Member Per Month Cost of Care among Telemedicine Bridge Clinic patients
- Driven primarily by reductions in ED and inpatient utilization



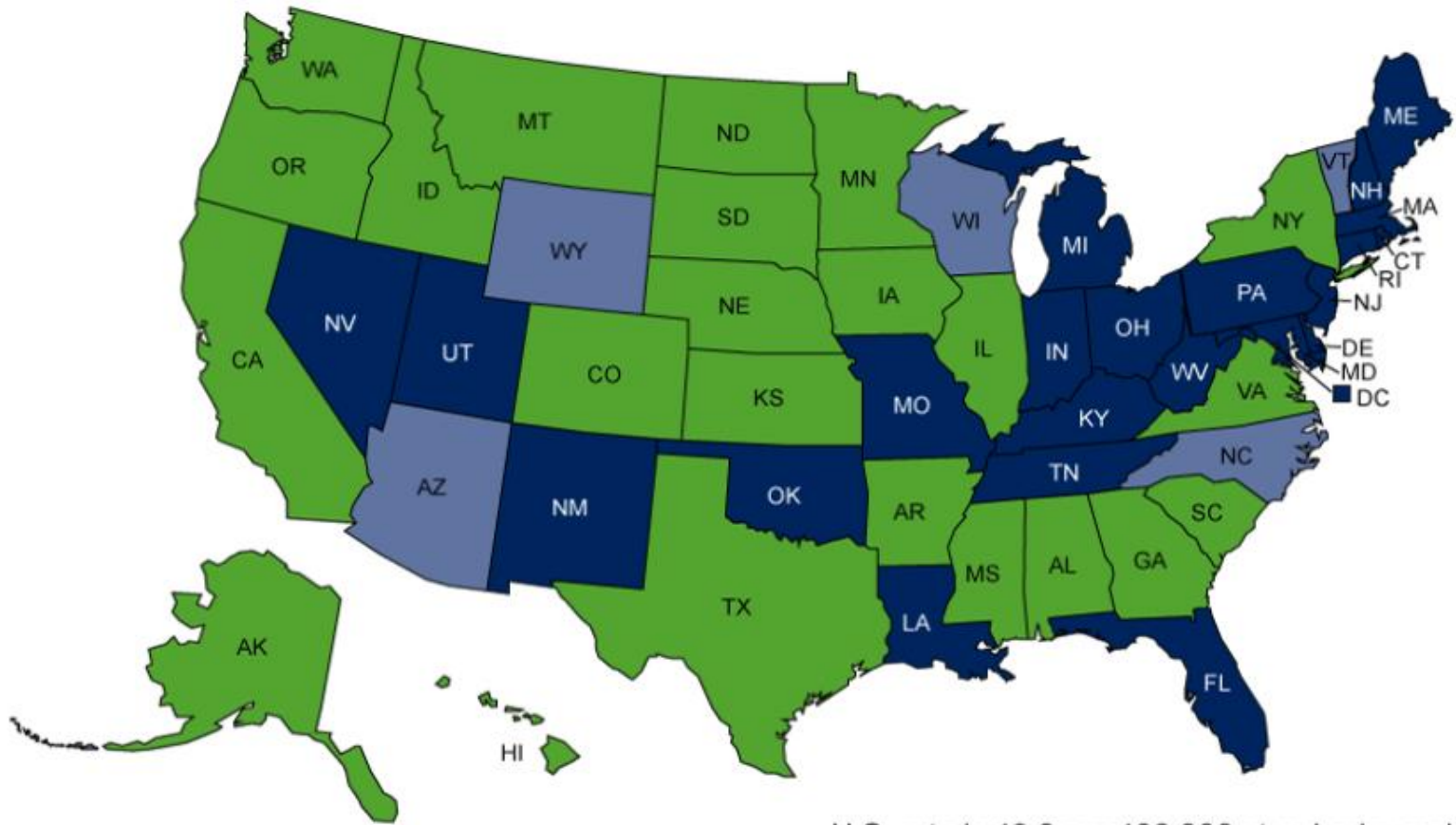
Clinical Workflow

- Determine whether the model will be tele-only or a hybrid model (combined tele- and in-person care)
- Ensure technology infrastructure is in place (video platform, EHR integration, HIPAA compliance)
- Conduct patient assessments of OUD and withdrawal via telehealth.
- Check PDMP before initiating controlled substance prescribing
- Coordinate MOUD prescribing with pharmacies.
- Establish SOP's addressing screening, assessment, follow-up, referral for counseling, and drug testing workflows.
- Track initiation rates, retention, overdose outcomes, and patient satisfaction.



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
- 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



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



The Rural Opioid Problem

- Drug overdoses are the leading cause of injury or death in the U.S.¹
- Once a problem primarily constrained to urban regions, people living in rural areas are now at a similar risk of death from drug overdose than urban Americans.¹
- Treatment with medications for opioid use disorder (MOUD) is the gold standard treatment approach but rural access is limited,

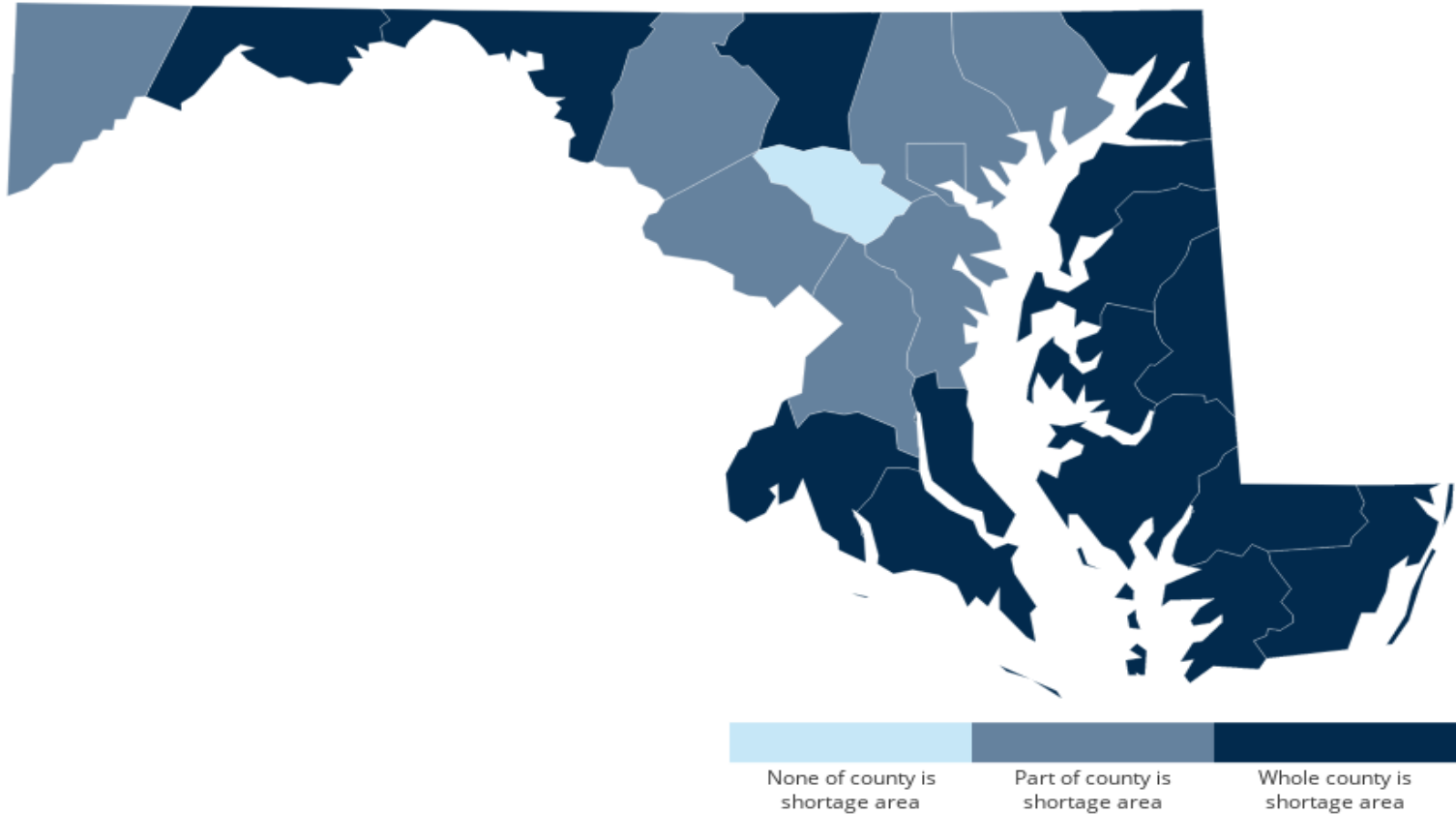
¹CDC Rural Health, May 16, 2024

²Andrilla CHA, et al. (2019). Geographic distribution of providers with a DEA waiver to prescribe buprenorphine for the treatment of opioid use disorder: a 5-year update. *J Rural Health*. 35:108–12. 10.1111/jrh.12307

³Garnick DW, et al. (2020). Rural clients' continuity into follow-up substance use disorder treatment: impacts of travel time, incentives, and alerts. *J Rural Health*. 36:196–207. 10.1111/jrh.12375



Health Professional Shortage Areas: Mental Health, by County, 2022 - Maryland

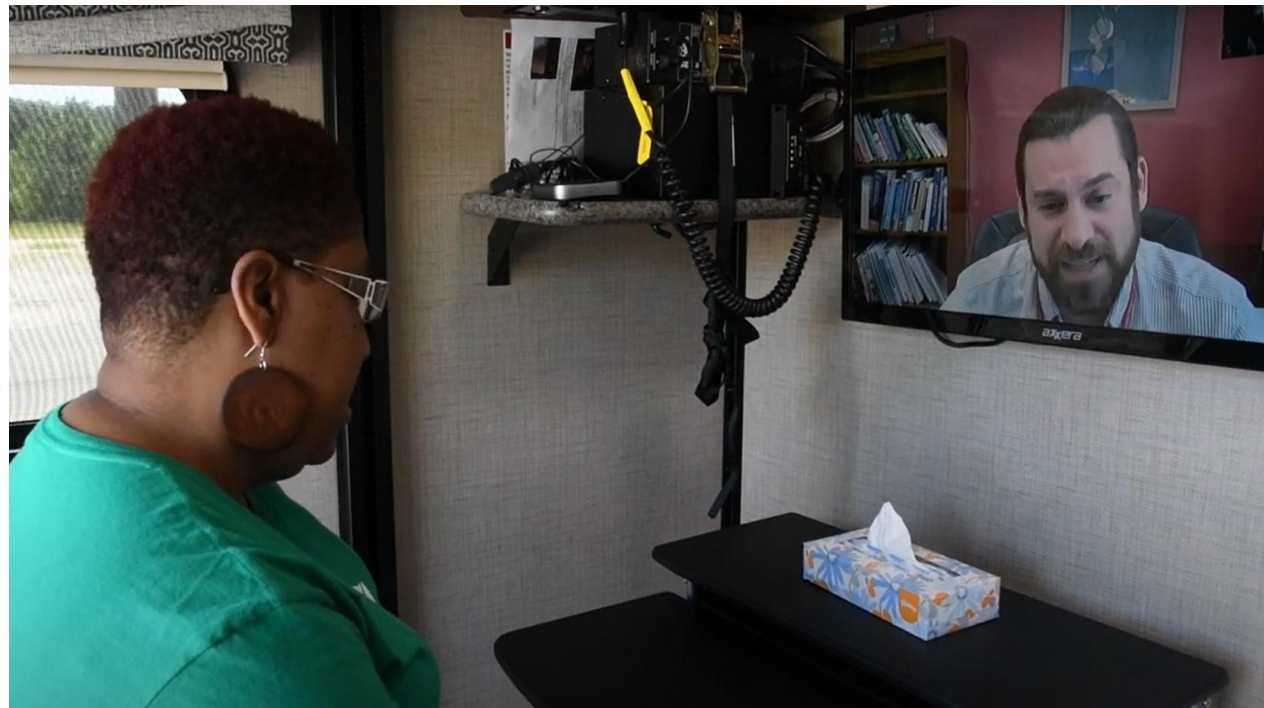
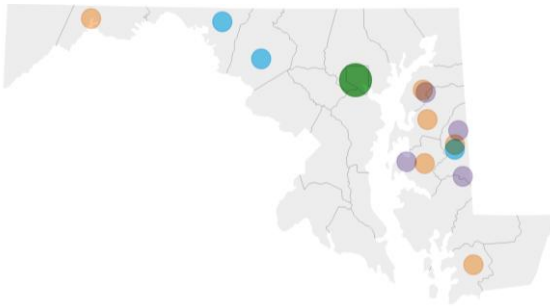




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University of Maryland Telemedicine MOUD Treatment Program

Have treated thousands of patients across Maryland, with addiction expertise piped in virtually from Baltimore





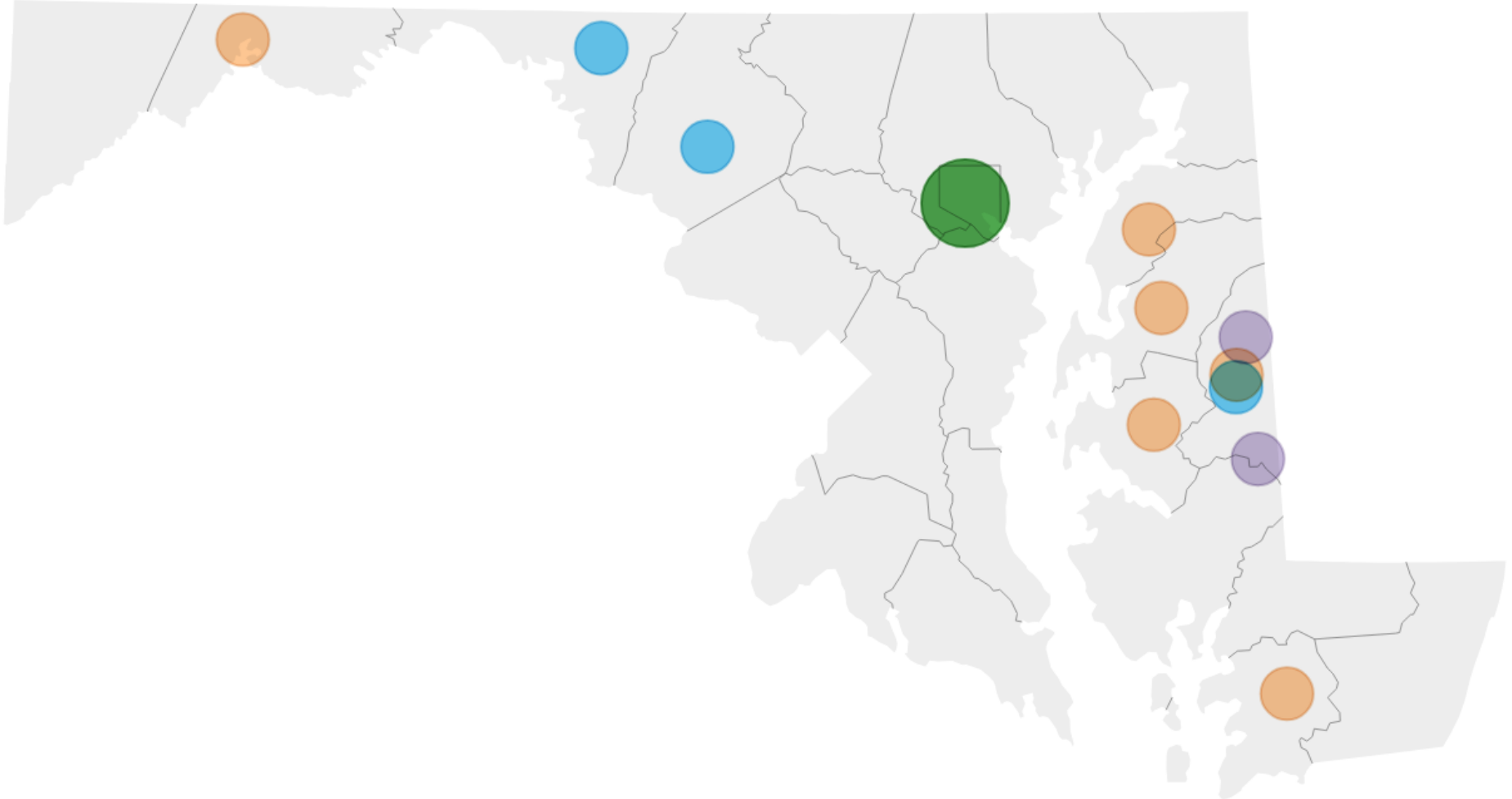
UM Telemedicine Program- Brief history, different models including expansion into carceral settings



Clinical Programs

Column 2

■ Addiction Programs at UMMC ■ Mobile Treatment Unit (SUD and IHV Care) ■ Tele MOUD Care in County Detention Centers ■ Tele MOUD Care in Outpatient Clinic





RYAN HAIGHT, 18, VICODIN

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





Ryan Haight Act

- RH Online Consumer Protection Act
- 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



Wells House

- First Tele MOUD program started August 2015
- Halfway house in Hagerstown, Maryland
 - **IOP/OP program**
 - **Many live there but some in own housing**
 - **No medical staff**
- Had M.D. prescribing Suboxone but retired





Wells House Retention

First 177 Patients

1 week	98% still in care
1 month	91% still in care
2 month	76% still in care
3 months	57% still in care*
Of those in treatment at 3 months 86% with opioid negative urines	



Wells House/Published Outcomes

- Retrospective case series of first 177 pts
- Population young (~35yo), male (~89%), mostly voluntary (19% from drug court), mostly PWID (75%)
- Primary Outcome: 57% retained in treatment onsite at 3 months

The American Journal on Addictions, XX, 1-6, 2018
© 2018 American Academy of Addiction Psychiatry
ISSN: 1055-0496 print / 1521-0991 online
DOI: 10.1111/ajad.12865

Expanding Access to Buprenorphine Treatment in Rural Areas With the Use of Telemedicine

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Background and Objectives: The opioid epidemic in the United States has resulted in a public health emergency. Medication-assisted treatment (MAT) with methadone and buprenorphine are evidence-based treatments for opioid use disorder. However, numerous barriers hinder access to treatment in rural areas. The use of telemedicine to deliver psychiatric services is demonstrated to be safe and effective; however, limited data exist on the novel application of telemedicine in the delivery of MAT. This report describes the results of a retrospective chart review of 177 patients in a rural drug treatment center that were treated with buprenorphine through telemedicine.

Methods: This study evaluated a program that began providing buprenorphine treatment to patients at a drug treatment center in rural Maryland via telemedicine in August 2015. A chart review was performed of the first 177 patients who were enrolled in the program. Data were extracted to examine retention in treatment and rates of continued opioid use.

Results: Retention in treatment was 98% at 1 week, 91% at 1 month, 75% at 2 months, and 57% at 3 months. Of patients still engaged in treatment at 3 months, 86% had opioid-negative urine toxicology.

Discussion and Conclusions: Our findings suggest that treatment with buprenorphine can be effectively delivered by telemedicine to patients with opioid use disorder in a rural drug treatment program.

Scientific Significance: This use of telemedicine is a potential tool to expand medication-assisted treatment to underserved rural populations. (*Am J Addict* 2018;XX:1-6)

BACKGROUND

The United States is in the midst of an opioid epidemic resulting in a national public health crisis with significant economic and health costs to society. Opioid use disorder results in increased crime, decreased work productivity, and

significant medical morbidity and mortality. The total economic burden to the United States secondary to the misuse of prescription opioids was estimated to be over \$78.5 billion dollars in 2013.¹ The consequences for individuals can be devastating and fatal. Since 1999, overdose deaths related to opioids have quadrupled. In 2016, 42,249 Americans suffered fatal opioid overdoses with an estimated 115 individuals dying each day.²

The current epidemic is largely fueled by an increase in the misuse of prescription opioids. A collective push in the mid-1990's encouraged an increase in the prescribing of opioids for the treatment of non-malignant pain. Patient advocacy groups and pain specialists led the movement by highlighting a need to aggressively treat an epidemic of undertreated pain. The American Pain Society also endorsed the identification of the subjective pain score as the "fifth vital sign."³ Concurrently, pharmaceutical companies initiated extensive marketing campaigns advocating for the use of long acting opioids such as OxyContin (Purdue Pharma, Stamford, CT) in the treatment of chronic non-malignant pain. The marketing strategies targeted physicians identified as the most frequent prescribers of opioid pain medications, in particular primary care physicians.⁴ As a result, opioid prescribing in the United States skyrocketed with a 300% increase between 1991 and 2009.⁵ By 2012, 259 million opioid prescriptions were written, enough to distribute one bottle to each adult in the country.⁶ There is a demonstrable direct correlation between the quantity of opioids prescribed and the morbidity and mortality associated with these medications.⁷

Rural America has been disproportionately impacted by misuse of prescription opioids and is increasingly awash in illicit opioids as well. Prior to the 1990's, opioid misuse was predominantly an urban phenomenon centered on the use of heroin. However, the current rate of the non-medical use of opioids is greater in rural than urban areas and the per capita overdose rate is nearly 45% higher in rural communities.^{8,9} Factors hypothesized to contribute to the rise in opioid

Received April 16, 2018; revised September 7, 2018; accepted September 12, 2018.
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Wells House Follow-up

First 472 Patients	
1 week	89% still in care
1 month	79% still in care
3 months	50% still in *
*of those in treatment at 3 months 93% with opioid negative urines	



Facing mounting opioid overdoses, Maryland doctor defies federal law

By [DAVID PITTMAN](#)

HAGERSTOWN, Md. — At a 100-bed halfway house on the southern edge of this heroin-ravaged town in the Appalachian foothills, **addiction specialists have taken the law into their own hands**. It was either that or watch their patients die, they say.

Every Tuesday afternoon for the last two years, psychiatrist **Eric Weintraub** has spoken through a Skype-like feed from Baltimore with patients in a second floor room of the Wells House. He offers counseling that usually includes prescribing an opioid drug, Suboxone, that removes their need for a fix.



Maryland Telemedicine Buprenorphine Model

- Develop relationship with a rural treatment center in an area in need of buprenorphine prescribers.
- All programs now receive DEA certification prior to starting clinical program
- All patients receiving buprenorphine by telemedicine are enrolled in a treatment program
- Develop SOP's focusing on clinical communication
- Program Coordinator



Eastern Shore Mobile Care Collaborative

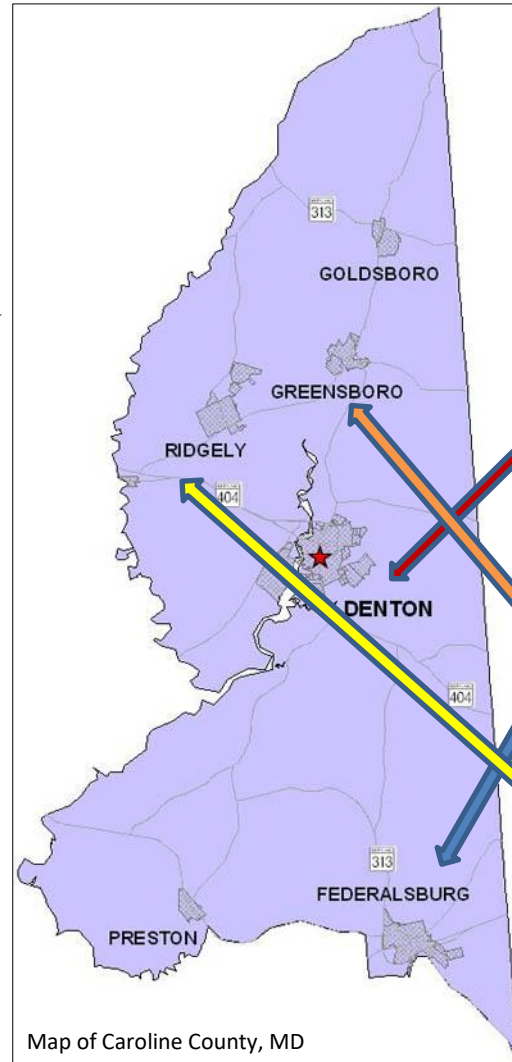


HRSA Funded Program in collaboration with Maryland State BHA
Provides services in Caroline, Kent, and Talbot County
Clinics in different towns in Caroline County
Multidisciplinary approach to treatment



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 6.52 miles by traveling to a treatment site closest to them.



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



Original Investigation | Substance Use and Addiction

Mobile Telemedicine for Buprenorphine Treatment in Rural Populations With Opioid Use Disorder

Eric Weintraub, MD; Chamindi Seneviratne, MD; Jessica Anane, MPH; Kelly Coble, LCSW-C; Jessica Magidson, PhD; Sarah Kattakuzhy, MD; Aaron Greenblatt, MD; Christopher Welsh, MD; Alexander Pappas, MD; Terri L. Ross, LCSW-C; Annabelle M. Belcher, PhD

Abstract

IMPORTANCE The demand for medications for opioid use disorder (MOUD) in rural US counties far outweighs their availability. Novel approaches to extend treatment capacity include telemedicine (TM) and mobile treatment on demand; however, their combined use has not been reported or evaluated.

OBJECTIVE To evaluate the use of a TM mobile treatment unit (TM-MTU) to improve access to MOUD for individuals living in an underserved rural area.

DESIGN, SETTING, AND PARTICIPANTS This quality improvement study evaluated data collected from adult outpatients with a diagnosis of OUD enrolled in the TM-MTU initiative from February 2019 (program inception) to June 2020. Program staff traveled to rural areas in a modified recreational vehicle equipped with medical, videoconferencing, and data collection devices. Patients were virtually connected with physicians based more than 70 miles (112 km) away. Data analysis was performed from June to October 2020.

Key Points

Question Can medications to treat opioid use disorder be effectively provided to individuals living in underserved rural areas via telemedicine in a mobile treatment unit?

Findings In this quality improvement study, comparable to office-based telemedicine programs, 58.51% of patients treated in a mobile telemedicine treatment unit remained in treatment at 90 days. Longer retention was significantly associated with reduced opioid use.

Conclusion These findings suggest that



MTU Patient Overview

- Total patients seen from (1/19-6/22): 304
- Current individuals in treatment: 125
- Retention in treatment at 3 months: 60%
- Opioid Use was reduced by 1/3 at 3 months
- Significant reduction in travel distance and time



Behavioral Health

Call (410) 479-1882

CAROLINE COUNTY
HEALTH DEPARTMENT
Caring for Caroline

**MOBILE
TREATMENT**

In Crisis? Call

Say something
PM



CAROLINE COUNTY
HEALTH DEPARTMENT
Caring for Caroline

MOBILE
TREATMENT

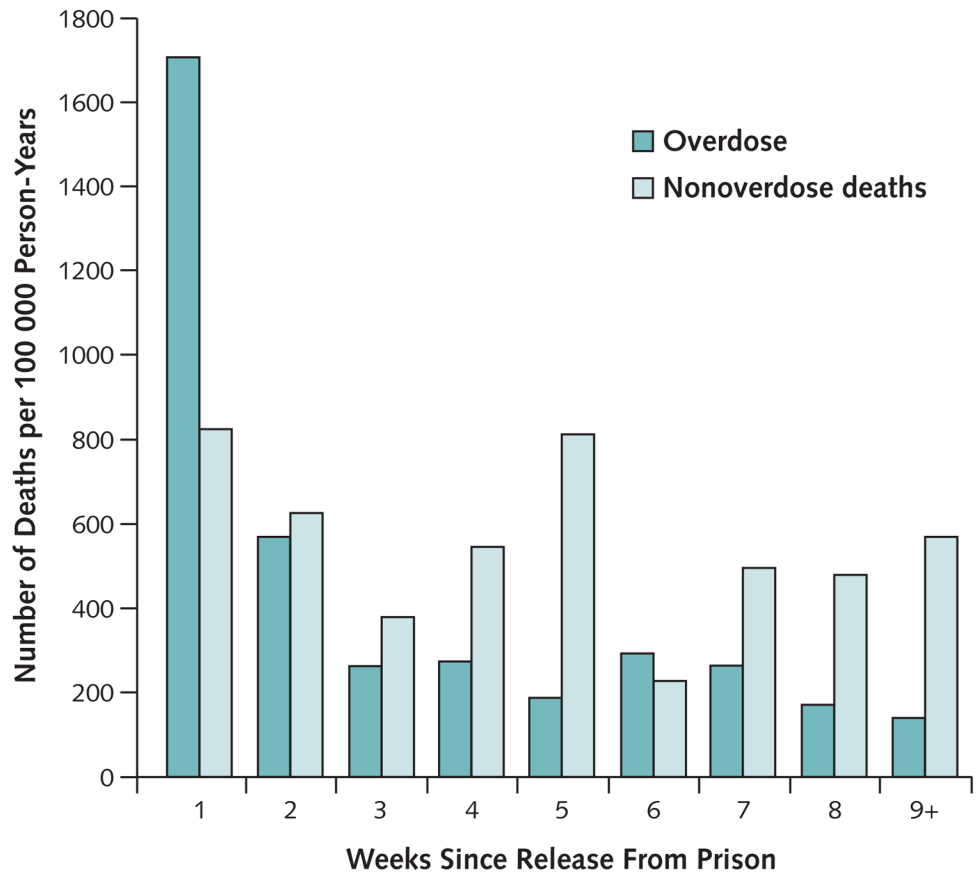
Behavioral Health

(410) 326-1111



Incarcerated individuals have a heightened risk of OUD and overdose

- 58-63% meet criteria for SUD (Bronson et al., 2017)
- 15% meet criteria for OUD (NASEM, 2019)
- 15% of deaths upon release involve opioid overdose (Binswanger et al., 2013)
- Risk of OOD is 12.7x greater in the initial weeks following release (Merrall et al., 2010)



Binswanger et al (2013)



**Correctional
Facilities
MOUD**

632 or 5,000 correctional
facilities offer MOUD

32.1 percent of 836
surveyed jails offer any
type of MOUD



MOUD Jail Outcome Studies

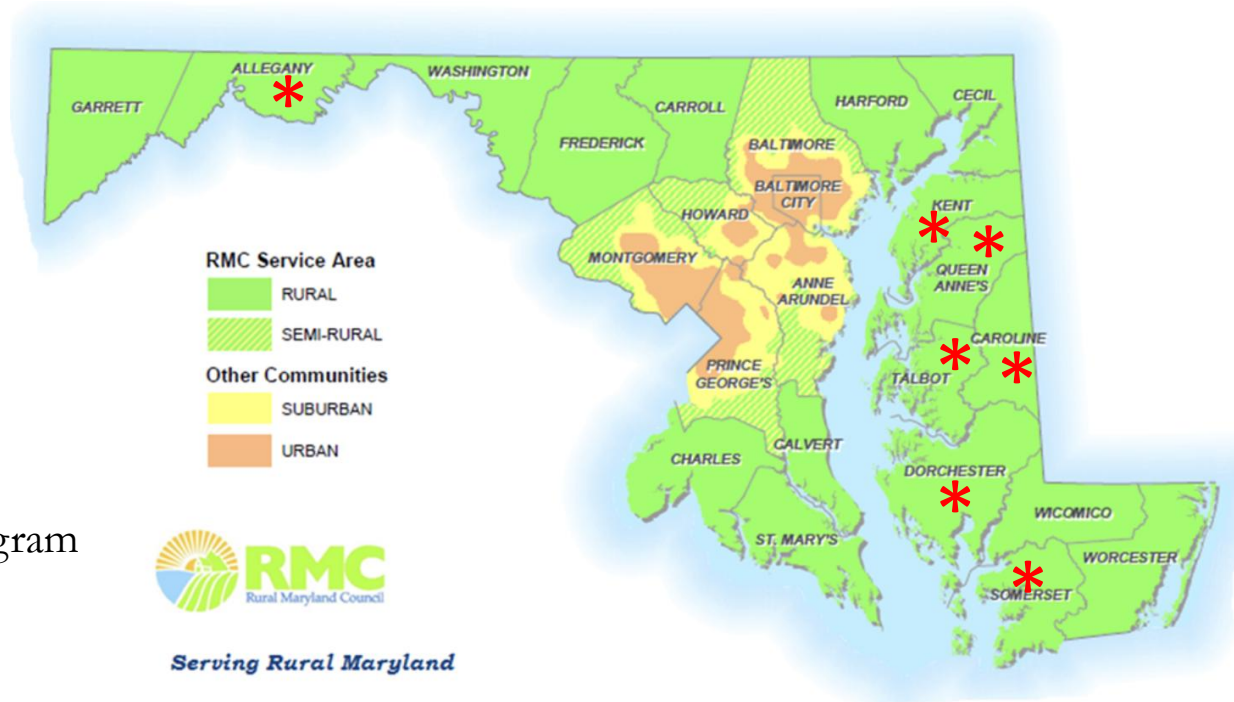
Study of incarcerated individuals released from New York jails from 2013-2017, those that received MOUD up to 3 days prior to release had an 80 percent reduction in overdose mortality risk

A study in Massachusetts compared two groups of in-mates post release. Those that were on buprenorphine were approximately less than 30% likely to be re-incarcerated.



Program reach:
Currently in 7 rural
detention centers –
~40% of Maryland's 18
rural jurisdictions

* = Current UM Tele-Jails Program





Site	Site Start Date	New Admissions	Readmissions
Talbot	August 2020	90	21
Allegany	April 2021	584	277
Kent	January 2022	111	39
Somerset	December 2022	125	28
Caroline	February 2023	121	30
Queen Anne	May 2023	132	14
Dorchester	July 2025	57	3
Total		1220	412

Data cut: 3/13/26



Post-Discharge Outcomes: Allegany County DC

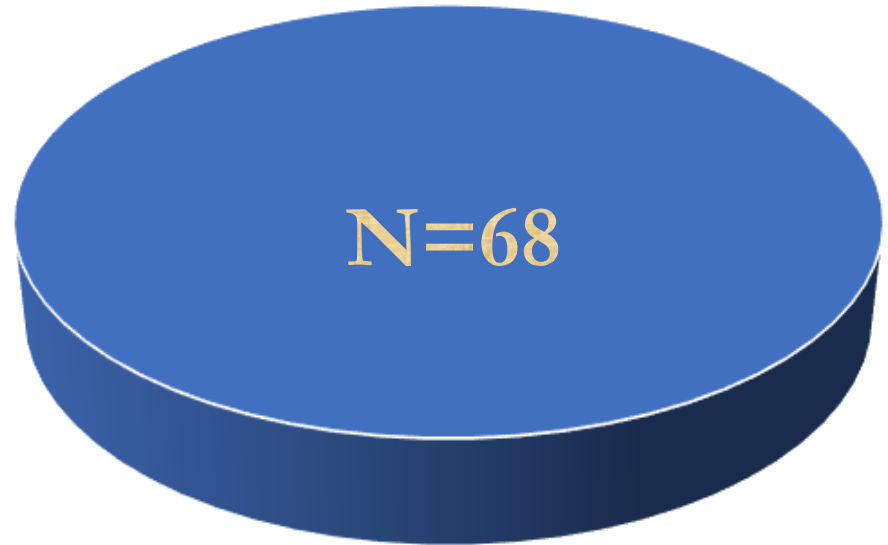
N=117 collected post care outcomes following release from custody to characterize:

- Number that received a buprenorphine bridge script at time of release
- Proportion that filled the bridge script within 5 days of release
- Proportion that filled any other buprenorphine script within 14 days of release
- Any fatal opioid-related overdoses within 90 day of release



Post-Discharge Outcomes: Allegany County DC

Received a buprenorphine
bridge script at time of
release





Post-Discharge Outcomes: Allegany County DC

Filled a buprenorphine bridge script within 5 days of release

	N	%
No	10	15
Yes	58	85



Post-Discharge Outcomes: Allegany County DC

Filled any other buprenorphine script within 14 days of release

	N	%
No	45	38
Yes	72	62



Post-Discharge Outcomes: Allegheny County DC

No fatal opioid-related
overdoses within 90 days of
release

MACS

Maryland Addiction Consultation Service

Provides support to prescribers and their practices, pharmacists, and healthcare teams in addressing the needs of their patients with substance use disorders and chronic pain management.

All Services are FREE

- Phone consultation for clinical questions
- Education and training opportunities related to substance use disorders and chronic pain management
- Assistance with addiction and behavioral health resources and referrals
- Technical assistance to practices implementing or expanding office-based addiction treatment services
- MACS TeleECHO™ Clinics: collaborative medical education through didactic presentations and case-based learning

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