INTRODUCTION
People with opioid use disorder (OUD) have complex needs and characteristics that often make effective, continuous addiction treatment a challenge. Individuals with OUD are disproportionately impacted by co-occurring chronic conditions, higher rates of social service utilization, and higher rates of involvement in the criminal justice system. Furthermore, OUD care is financed and delivered separately from other medical care, making it hard for individuals with OUD to access and remain engaged in treatment due to care complexity and a lack of care coordination. As the major payer for OUD treatment in the United States, Medicaid programs are uniquely positioned to enact innovative delivery system reforms that can significantly improve OUD treatment outcomes. Most state Medicaid OUD care delivery innovations can be categorized into two main areas: 1) health homes and 2) warm handoffs and care transitions. This brief provides an overview of these approaches and offers recent examples from state Medicaid programs based on findings from an OUD policy inventory of nine state Medicaid programs that have been substantially impacted by the opioid epidemic and participate in the Medicaid Outcomes Distributed Research Network (MODRN).

HEALTH HOMES
The Centers for Medicare & Medicaid Services (CMS) created the Medicaid health homes program to integrate physical and behavioral health care services for enrollees with chronic conditions, including substance use disorder (SUD) and OUD. In the last few years, several states, including Pennsylvania, Maryland, and Michigan, have established or are exploring health home models for beneficiaries with OUD.
Pennsylvania Centers of Excellence Program

In 2016, with an initial $15 million grant from the Office of the Governor, the Pennsylvania Department of Human Services (DHS) established the Centers of Excellence (COE) program to engage and retain individuals with OUD in treatment. Prior to the COE program, only 48% of individuals with diagnosed OUD were engaged in treatment and as little as 33% of those individuals remained in treatment for at least 30 days.6 Using a community-based approach, the DHS selected 45 providers across the state to serve as COEs. The COEs, which include primary care offices, dentists, hospitals, federally qualified health centers (FQHCs), outpatient SUD treatment providers, and local and county health departments, are all tasked with identifying and engaging individuals with OUD living in their communities.

Early Outcomes:
Individual enrollees engaged in OUD treatment through the COE program show greater rates of treatment and retention than those seeking OUD care outside of a COE. An independent analysis on these cohort differences reports COE enrollees have a 31% increase in OUD treatment engagement following diagnosis, 22% in those who receive medication for OUD and 40% increase in primary care visits. They are also more likely to seek follow-up care after an ED visit for OUD, retain pharmacotherapy, and participate in behavioral health counseling visits.7

COEs coordinate all aspects of a person’s care, including behavioral and physical health, as well as nonmedical social needs such as job training, childcare services, food

Figure 1: Centers of Excellence Opioid Treatment Process

security, and other needs correlated with an individual’s overall wellness (Figure 1).

**Early Outcomes:** MDHHS reported promising outcomes in its first year, including decreased inpatient hospitalization, decreased hospital length of stays, increased initiation and retention in treatment, and decreased readmission rates. Based on this success, MDHHS plans to expand the model into three more PIHP regions in 2021, potentially serving up to 20,000 beneficiaries.

**Michigan Opioid Health Home Pilot Program**

Building on a behavioral health home program established in 2014, the Michigan Department of Health and Human Services (MDHHS) introduced the Opioid Health Home pilot program for 400 Medicaid enrollees with OUD in 2018 through a state plan amendment (SPA). As with other Medicaid health home models, the Opioid Health Home pilot aims to integrate behavioral and physical health and coordinate care to improve health outcomes using a multidisciplinary team.

The program focused initially on two counties within Michigan’s Prepaid Inpatient Health Plan (PIHP) Region 2, which has the state’s highest per capita number of Medicaid beneficiaries with diagnosed OUD. The opioid health home model is a collaborative effort between a participating PIHP, a managed care program for enrollees with SUD, and a health home partner organization such as an FQHC, rural health clinic, SUD treatment provider, or another organization.

The opioid pilot is financed by MDHHS through two mechanisms: 1) a monthly case rate to the PIHP which then reimburses the Health Home Partners (HHP) for their services; and 2) payments for quality performance, based on metrics for the PIHP and the HHP. Outcomes of interest include decreases in opioid-related hospitalizations, increased initiation and engagement in treatment, and increased utilization of HHP’s peer recovery specialists.

**Maryland Behavioral Health Home Program**

In 2013, the Maryland Department of Health and Mental Hygiene submitted a SPA to CMS for the approval of the Maryland Health Home program. Similar to the Medicaid health homes, the program uses a multidisciplinary team that targets high-need, high-risk Medicaid beneficiaries with chronic mental health conditions, such as OUD, to coordinate their physical and behavioral health care and provide case management to ultimately reduce Medicaid program costs. To participate in the health home programs, Medicaid enrollees must currently engage in a psychiatric rehabilitation program, a mobile treatment service for behavioral health, or an opioid treatment program. For the approximately 70 participating provider sites, the department reimburses for the initial intake and assessment of any new enrollee and the same per member/per month fee to each participating health home. At the onset of the program, the federal government paid for 90% of the state’s program costs as determined by the federal medical assistance percentage formula, which calculates federal reimbursement rates to states based on per capita incomes relative to the national average.

**Early Outcomes:** A 2019 analysis conducted by the Hilltop Institute, the University of Maryland at Baltimore County, shows that retention and engagement in the health home program was high, with an average length of enrollment of 40 months and high engagement with the social services provided by the program. For example, at the program’s inception, approximately 13% of participants received two or more services and 75% received no services. As the program has progressed, engagement in at least two or more services per month has increased drastically, falling between 63% and 84%. Furthermore, length of enrollment in the program had an inverse relationship with average number of regular and non-emergent emergency department (ED) visits, hospital readmissions rates, and hospital stays.
WARM HANDOFFS AND CARE TRANSITIONS

During a warm handoff, an inpatient or residential treatment provider introduces the patient and the outpatient behavioral health provider they are being referred to in real time, with the goal of improving the initiation and coordination of behavioral health treatment. Warm handoffs and other care transitions can be sorted into three categories: hospital-based transitions, residential or treatment center-based transitions, and office-based care transitions.

Hospital-based care transitions

Hospital-based initiatives include initiating buprenorphine treatment in the ED, followed by a warm handoff to an outpatient treatment provider. Commonly, peer recovery specialists assist in the warm handoff process and/or provide services within the hospital. Research has shown that involvement in warm handoff programs for patients with OUD led to decreased incidence of opioid use and increased engagement and retention in OUD treatment; however, evidence suggests more rigorous interventions are needed for the effective treatment of patients with severe OUD. Below, we highlight care transition programs in three of our MODRN participating states, West Virginia, Pennsylvania, and Michigan.

West Virginia Care Transitions

With support from the Substance Abuse and Mental Health Services Administration’s (SAMHSA’s) State Targeted Response (STR) to the Opioid Crisis grant program, the West Virginia Department of Health and Human Resources (DHHR) has piloted a number of initiatives designed to expand the initiation of treatment for OUD in hospital EDs and other settings where warm handoffs are key to transition of care.

In 2017, in partnership with Marshall University’s School of Medicine and Marshall Health, West Virginia DHHR announced Project Engage, which aims to identify patients in the ED with SUD and link them with treatment before they are discharged. Through the program, individuals in the ED are connected with a peer recovery specialist, offered medication for OUD, and referred to a community-based practitioner for continued treatment upon discharge. In addition, individuals receive a referral to West Virginia’s Provider Response Organization for Addiction Care and Treatment, which serves as a hub for addiction treatment services in the state, offering treatment and counseling and working to address the additional social and emotional factors that might affect an individual’s initiation and retention in OUD treatment.

In 2019, DHHR began working with Marshall Health and West Virginia University to add five hospitals to Project Engage through an ED Expansion Grant through the Centers for Disease Control and Prevention’s Overdose Data to Action program with additional funding from a SAMHSA State Opioid Response (SOR) grant. The program will expand upon the foundation created by Project Engage and aim to link individuals with SUD to treatment with the ultimate goal of sustained recovery.

To assess the effectiveness of the program, West Virginia University and Marshall University have partnered to conduct a multifaceted evaluation at the quantitative, qualitative, and grant levels. Specifically, the hospitals have set up monthly customized data reports (in dashboard format) to track key performance measures in electronic health records (EHRs). The key outcomes of interest include the number of ED patients screened for alcohol and drug use, the number of brief interventions delivered by peer recovery support specialists, the number of linkages to treatment, and more. Peer recovery support specialists, ED providers and nurses, emergency department leaders, and management leaders will be interviewed to obtain their perceptions of the process, including project initiation, planning, EHR modifications, and protocol development. The overarching grant-level evaluation will take place in early 2021.

Pennsylvania Hospital Quality Improvement for Opioid Use Disorder

In 2018, Pennsylvania DHS launched a two-phased incentivized payment initiative for hospitals to develop and subsequently implement warm handoffs or care transitions within seven days along four distinct clinical pathways:

1. ED initiation of buprenorphine with warm handoff to the community;
2. Direct warm handoff to the community for medication assisted treatment or abstinence-based treatment;
3. Specialized protocol to address pregnant women with OUD; and/or
4. Direct inpatient admission pathway for methadone or observation for buprenorphine induction.

DHS provided the base payments of $25,000 for phase one, which focused on developing the first pathway. Payments for the development of subsequent pathways were $37,000, $56,000, and $75,000, respectively. As of February 2019, 117 of the 120 participating hospitals implemented at least two pathways.16

In phase two of the initiative, focused on the implementation of the pathways, DHS will provide initial payments to participating hospitals for improving their rates of seven-day follow-up for opioid treatment. If hospitals surpass the outcomes benchmark set by Pennsylvania DHS, they will receive an additional payment. Evaluation of the program and incentivized payments were to begin in October 2020.17

Michigan ED Buprenorphine Initiation Program
With support from a U.S. Department of Health and Human Services SOR grant in January 2020, MDHHS allocated $4 million of the award’s $17.5 million to implement programs in the ED. These programs include screening and assessing for SUD and initiating buprenorphine treatment, along with facilitating warm handoffs to community providers for referral. In addition, through the grant, Michigan is introducing an initiative called Project Alcohol & Substance Abuse Services, Education, and Referral to Treatment, which embeds peer recovery coaches into EDs across the state.18

Residential or Treatment Center-Based Transitions
In residential settings, states have leveraged Medicaid managed care organizations to implement warm handoffs from discharge to outpatient treatment programs. This ensures medication-assisted treatment is coordinated while the enrollee is in a residential treatment facility.

For example, through a state plan amendment in 2018, Kentucky added coverage for care coordination as a service in residential treatment locations and allowed peer support specialists to bridge ED care transitions with a multidisciplinary care team. These “ED-Bridge” outpatient clinics are funded using a STR to the Opioid Crisis grant19 and have been found to increase engagement in addiction treatment and reduce the prevalence of illicit drug use.20

Outpatient Office-Based Care Transitions
Medicaid programs also utilize office-based care transitions to remove barriers and increase access to medication for OUD by integrating substance use care into the primary or general health care setting. Permitting physicians to bill for and provide treatment for OUD has significantly increased individuals’ engagement and retention in care to ultimately reduce mortality.

Virginia Preferred Office-Based Opioid Treatment
In 2017, the Virginia Department of Medical Assistance Services launched the Addiction and Recovery Treatment Services program, which is an enhanced substance use benefit for enrollees with diagnosed SUD. The benefit includes coverage of Preferred Office-Based Opioid Treatment providers, which deliver addiction treatment services to enrollees with moderate-to-severe OUD. These preferred providers are required to have a staff member provide substance use care coordination and serve as the point of contact for the facility’s multidisciplinary care team, holding at least monthly meetings to ensure care and social needs are being met. These care coordinators are based in the same location as the provider prescribing medication-based treatment, helping to ensure seamless coordination of the multiple aspects of substance use treatment to ultimately improve outcomes for the enrollee.21

CONCLUSION
State Medicaid programs play a vital role in formulating innovative approaches to revolutionize the SUD treatment delivery system. Primarily through federal STR or SOR grants, states have leveraged opportunities to develop health homes and care transition enhancements aimed to improve OUD treatment outcomes by facilitating coordinated care among treatment providers; increasing follow-up after hospital stays; and addressing unmet physical, mental health, and social needs. Though it is understood that care for individuals with SUD, including OUD, is historically fragmented, there is
little evidence for the efficacy of delivery system reforms for OUD care. Additional findings from the programs highlighted above can inform the evolving development of patient-centered systems of care that address the complex care needs of individuals diagnosed with OUDs. As states continue to make programmatic and budgetary adjustments in the wake of the COVID-19 pandemic, Medicaid agencies will be faced with delivery system reform decisions such as retaining and/or reverting to certain Medicaid-covered telehealth services related to OUD care. In addition, Medicaid programs will continue to innovate on the approaches highlighted above, particularly by expanding the role of the peer recovery specialist in outpatient and hospital settings and experimenting with alternative and value-based payment models aimed at holding providers accountable for the quality and cost of OUD treatment care.

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NOTES


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About MODRN

Launched in 2017, AcademyHealth’s Medicaid Outcomes Distributed Research Network (MODRN) is a collaborative effort to analyze data across multiple states to facilitate learning among Medicaid agencies. Participants from AcademyHealth’s State-University Partnership Learning Network (SUPLN) and the Medicaid Medical Director Network (MMDN) developed MODRN to allow states to participate in valuable and timely, multi-state data analyses, while retaining their own data and analytic capacity. MODRN uses a common data model and standard analytic code to produce and aggregate state analyses of Medicaid data. MODRN’s first project — funded by the National Institute on Drug Abuse — is focusing on the quality and outcomes of opioid use disorder treatment among Medicaid beneficiaries.

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