Findings and Lessons Learned from the Community Opioid Response and Evaluation (CORE) Project

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Executive summary

Introduction

The opioid epidemic in the United States continues to be widespread and inflict devastating consequences. According to the Centers for Disease Control and Prevention (CDC), "The number of drug overdose deaths increased by nearly 30% from 2019 to 2020 and has quintupled since 1999" (2022b). In order to curb this public health crisis, it is critical to understand the most effective ways to prevent overdose deaths and provide treatment.

In 2020, The Pew Charitable Trusts (Pew), with support from the Robert Wood Johnson Foundation, launched the Community Opioid Response and Evaluation (CORE) project. This partnership funded six community-research collaboratives aimed at addressing the opioid epidemic and supported them in conducting an evaluation of existing projects. Over a two-year period, these collaboratives, which included a lead organization and a local evaluation partner, implemented a wide range of innovative initiatives that could serve as models to address the opioid epidemic in U.S. communities.

Wilder Research, a nonprofit research and evaluation firm in Saint Paul, Minnesota, provided evaluation training and technical assistance to each of the community-research collaboratives to ensure their evaluation plans were robust and scientifically sound.

While united in an overall mission, each of the CORE community collaboratives is unique in their approach to the work, the communities and context in which they operate, and the populations they serve.

Project CARA (Care that Advocates Respect/Resilience/Recovery for All) is a comprehensive perinatal substance use disorder treatment program that serves Asheville and western North Carolina.

CARE (Clinic for Acceptance, Recovery, and Empowerment in Pregnancy) is an outpatient program that serves St. Louis, Missouri, rural Missouri, and southern Illinois. CARE offers prenatal care, opioid use disorder treatment with buprenorphine, and behavioral health and psychiatry support to pregnant and postpartum persons, along with neonatal and postpartum care.

MTOM (Midwest Tribal Opioid Meta-Evaluation) is an initiative that served Northeastern Minnesota and two Tribal Nations, Mille Lacs Band of Ojibwe and Bois Forte Band of Chippewa. MTOM sought to evaluate the cumulative impact of four federal grants that were awarded to University of Minnesota Extension from 2018 through 2020 to address the rural opioid crisis.

OBC (Olympia Bupe Clinic) is a walk-in clinic that serves Olympia, Washington. They provide low-barrier buprenorphine treatment for opioid use disorder for high-need individuals, closely integrated with peer recovery support services.

RACHHS (Rio Arriba County Health and Human Services Department) provides substance use disorder (SUD) case management and social support services in Rio Arriba County, New Mexico. RACHHS provides care coordination of "wrap-around" services that address issues like housing, employment, and basic needs, with treatment services to mitigate social factors that challenge SUD management.

REACH (Respectful, Equitable, Access to Compassionate Healthcare) Medical is based in Ithaca, New York, and serves New York State. It offers medication for opioid use disorder (MOUD), as well as integrated medical and behavioral health services.

Key findings

The six CORE collaboratives launched their projects during the height of the COVID-19 pandemic. As a result of the pandemic and other site-specific challenges that emerged over the two-year period (e.g., staff turnover), sites made adaptations to their programs, service models, and their proposed evaluation plans. The following key themes and lessons learned reflect a *point in time* for the grantees—at the end of the grant, rather than the end of their work—as their efforts to combat the opioid crisis and evaluate those efforts continue.

Grantees are implementing a range of innovative and promising approaches in their respective communities

- Many take a **low-barrier, harm reduction** approach to treatment, including a focus on reducing barriers to health services more generally. This includes **increasing access to medications for opioid-use disorder**, including through the implementation of telemedicine.
- Efforts to **address the role of stigma** in multiple contexts are also prevalent. **Peer supports** help advance this goal by creating a safe, supportive, judgment-free environment for patients and conveying the message that people with lived experience of substance use are respected and valued.
- Prioritizing **trauma-informed care** and attending to issues of **health equity, disparities, and culture** are also central to many approaches, as is addressing **social determinants of health** that influence patients' overall health and well-being.

Evaluation results suggest early indications of impact

In partnership with their evaluation partners, grantees developed comprehensive, robust evaluation plans to assess the impact of their work. These plans were guided by key evaluation questions, which sought to measure patient outcomes, provider and staff experiences and outcomes, implementation and effectiveness of services/best practices, and systems and policy changes and implications. Grantees conducted literature reviews to explore best practices; collected patient and provider/staff feedback via surveys, interviews, and focus groups; analyzed select patient and service data by reviewing electronic health records; and collected community member feedback through community forums. Wilder Research aggregated and synthesized evaluation findings across the projects.

Results at the end of the grant period suggest progress in patients' recovery as a result of the work by grantees, including:

- **Decreased heroin and non-prescribed opioid use**, and increased use of prescribed buprenorphine
- **Improvements to aspects of physical and emotional health**, including indicators of quality of life

- **Improved breastfeeding outcomes for pregnant patients**, such as the increased likelihood of breastfeeding at maternal discharge and higher rates of breastfeeding compared to peers in other programs

Patient data from multiple programs also indicate high degrees of satisfaction with the care they are receiving from the programs. And, the initiative, itself, has fostered collaboration, building on and strengthening existing community relationships and facilitating new partnerships between the grantees.

Recommendations

Largely due to COVID-19, there were numerous project challenges and adaptations that occurred over the course of the grant, such as limitations on the extent to which outcome data could be collected or accessed during the pandemic, and staff burnout and turnover. Nevertheless, the lessons learned to date inform suggestions for programs, providers, and policymakers to consider in their efforts to address the opioid epidemic.

Program and provider recommendations

- **Expand needed services to increase access to care**, beyond OUD treatment, such as providing on-site mental health support, peer-facilitated support groups, and transportation assistance; expanding clinic hours; and integrating telemedicine into care models.
- **Offer training to providers and community partners** so they are capable and comfortable prescribing medications like buprenorphine and knowledgeable of harm reduction and trauma-informed approaches.
- **Expand collaborations to elevate other voices in the work and research related to the opioid epidemic**, including individuals with lived experience, peer supports, community-based partners, and, as appropriate and relevant, Tribal Nations.
- **Form community-based teams to initiate similar projects in local communities**, with a focus on making low-barrier and harm reduction support services available and meeting people who are seeking treatment where they are.
- **Disseminate findings that educate both communities and funders** to increase awareness and support in the local community, reduce stigma, and enhance program recruitment, and promote flexible funding streams that support community-driven and culturally responsive practice and research.
- **Prioritize evaluation efforts and planning early in the lifecycle of a project** by developing a program logic model to create a joint vision among partners and a clear evaluation plan and toolkit to guide evaluation activities.
- **Conduct additional research to increase knowledge about program impact**, especially related to long-term outcomes (e.g., reduced stigma, improved health outcomes, decreased overdose deaths), as well as best practices.

Policy recommendations

Changes to policies and practices can support increased access to care for substance use/opioid use disorder patients and greater use of health care services. Several recommendations for state and federal policymakers emerged out of the work of the CORE grantees, including:

- **Promote policies and practices that support harm reduction models of care**, such as those that reduce barriers to buprenorphine treatment (i.e., "low-threshold" buprenorphine) and those that provide access to and disposal of drug use equipment ("syringe services programs").
- **Use harm reduction-informed destigmatizing language related to substance use**. For example, use person-first language (e.g., "people with OUD"), eliminate the use of words with negative connotations (e.g., getting "clean"), and treat OUD like any other medical condition that can be managed with evidence-based, ongoing treatment.
- **Advocate for the use of telemedicine in OUD treatment**. Support can be built by emphasizing the success of at-home buprenorphine initiation under new regulations put in place due to the COVID-19 pandemic.
- **Include individuals with lived experience in Medicaid reform discussions**, incorporating them into decision-making around Medicaid policy proposals.
- **Increase Medicaid reimbursement rates to support SUD care for patients with complex, co-occurring medical and social conditions**, such as pregnant and parenting persons and individuals with recent incarceration and/or overdose.

Contents

Glossary

Art-based evaluation – evaluation approaches that utilize art or artistic processes in the evaluation process itself, using creative activities as a way of expressing value

Changemakers – a MTOM leadership training for people recovering from addiction who want to create change in their community, as a part of which participants implement an innovative idea that will make an impact in their community

COVID-19 Public Health Emergency – the public health emergency declared on January 31, 2020, by the U.S. Department of Health & Human Services in response to the COVID-19 pandemic; this public health emergency continues to be in effect as of the publication of this report

Decolonizing – removing the cultural or social effects of colonization

Group Model Building – a qualitative method that engages stakeholders to collectively consider the structures and relationships that cause complex problems

Indigenizing – bringing something under the control or influence of the people who are native to an area

Indigenous evaluation methods – evaluation methods that involve approaching evaluation from a perspective, and using techniques influenced by, Indigenous ways of knowing, frameworks, and cultural paradigms

Medications for Opioid Use Disorder (MOUD) – the use of medications – most commonly buprenorphine, methadone, or naltrexone – to treat opioid use disorders; previously referred to as Medication Assisted Treatment, or MAT.

Opioid use disorder (OUD) – a problematic pattern of opioid use that causes significant impairment or distress

Peer Recovery Specialist (PRS) – someone with a personal lived experience in recovery, who meets one-on-one with people seeking help in their recovery to work through barriers they may be facing

Recovery capital – the resources a person has available to find and sustain recovery from a substance use disorder

Social determinants of health– the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks

Substance use disorder (SUD) – a condition that occurs when the recurrent use of alcohol and/or drugs causes significant impairment

Wraparound services – services that address issues that a client in treatment may need assistance with beyond the diagnosis and treatment of substance use disorders; services include those addressing a client’s medical care, mental health, child care, family, educational, vocational, housing/transportation, finance, and legal issues

CORE overview

Introduction

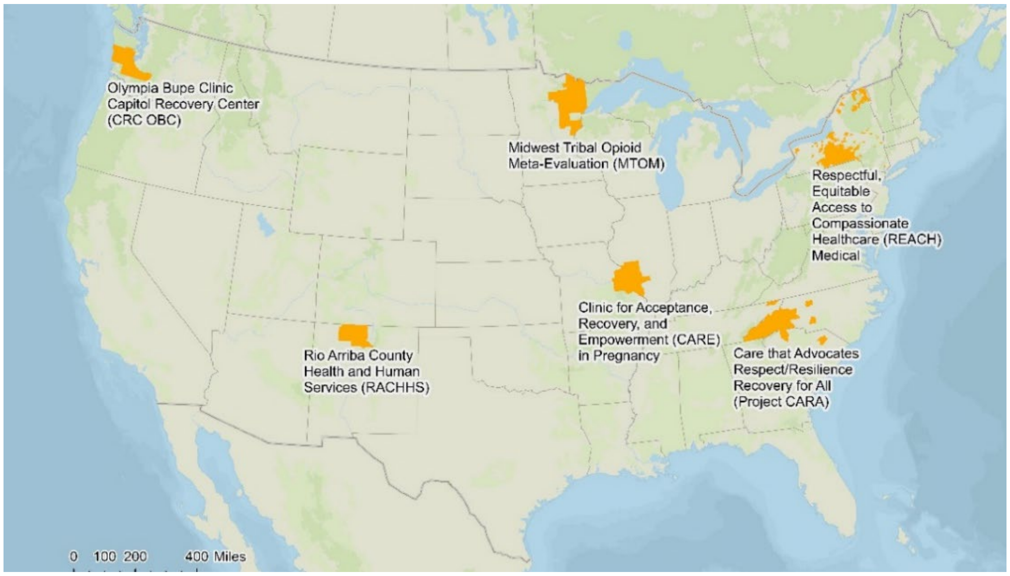
The widespread opioid epidemic in the United States continues to inflict devastating consequences. In 2020, opioids were involved in more than 68,000 deaths (CDC, 2022a). According to the Centers for Disease Control and Prevention (CDC), "The number of drug overdose deaths increased by nearly 30% from 2019 to 2020 and has quintupled since 1999" (2022b). The pandemic further exacerbated the opioid crisis, disrupting treatment and contributing to increases in opioid-related overdoses, hospitalizations, and deaths (Ao et al., 2022).

In order to curb this public health crisis, it is critical to understand the most effective ways to prevent overdose deaths and provide treatment. In 2020, The Pew Charitable Trusts (Pew), with support from the Robert Wood Johnson Foundation, launched the Community Opioid Response and Evaluation (CORE) project. The project funded six community-research collaboratives that included a lead organization and local evaluation partner. Each collaborative was required to leverage an established, existing program with high potential for impact, have robust partnerships across government and other stakeholder groups, and utilize a model that could be scaled in other communities. Over a two-year period, these collaboratives worked to evaluate innovative models, learn with and from one another, and contribute knowledge and resources for communities across the nation seeking to respond to the opioid epidemic.

Description of local CORE collaboratives

Figure 1 illustrates the regions served by each of the six funded CORE collaboratives, described below. For more detailed information about each collaborative, see the Appendix.

1. Map of CORE collaboratives and service areas



Project CARA: Mountain Area Health Education Center

Care that Advocates Respect/Resilience/Recovery for All-Project CARA is a comprehensive perinatal substance use disorder treatment program with the mission to ensure that pregnant and parenting patients affected by substance use disorder (SUD) have easy access to a compassionate multidisciplinary team that utilizes a trauma-informed approach. Project CARA provides medical care, substance use care, and additional support services.
In addition to clinic services, Project CARA also partners with other programs and community services in the region as a way to connect patients to more services and to provide education and integrate resources.

The program's primary location is at the Mountain Area Health Education Center (MAHEC) OB/GYN in Asheville, North Carolina, with secondary locations providing services for people throughout western North Carolina. In all, patients came from 27 counties during this study, and only about half of patients came from the urban county where MAHEC is located.

Project CARA partnered with staff and researchers at University of North Carolina Health Sciences at MAHEC for their evaluation.

CARE: Washington University Medical Center

The Clinic for Acceptance, Recovery, and Empowerment in Pregnancy (CARE) is an outpatient program in St. Louis, Missouri, that offers prenatal care, opioid use disorder treatment with buprenorphine, and behavioral health and psychiatry support to pregnant and postpartum persons, along with neonatal and postpartum care. CARE is staffed by a multidisciplinary team of obstetric and mental health providers at Washington University Medical Center and Barnes-Jewish Hospital. Pregnant persons are referred from CARE's community health partners, the Barnes-Jewish Hospital obstetrical service, and by self-referrals.

The CARE team at Washington University Medical Center partnered with Brown School Evaluation Center to conduct their evaluation.

MTOM:
University of Minnesota Extension

The Midwest Tribal Opioid Meta-Evaluation (MTOM) collaborative sought to evaluate the cumulative impact of four opioid grants the University of Minnesota (UMN) Extension used to address the rural opioid crisis. Through these grants, UMN Extension hosted community forums; offered leadership training for people in recovery; and provided education, training, and technical assistance on naloxone, medication assisted treatment, and stigma. Further, UMN Extension's American Indian Resource and Resiliency Team (AIRRT) created and delivered culturally adapted holistic health education. The collaborative was a partnership between UMN Extension, UMN College of Pharmacy – Duluth, four rural counties in Northeastern Minnesota, and two Tribal Nations - Mille Lacs Band of Ojibwe and Bois Forte Band of Chippewa. Trainings sought to build the capacity of the rural area to prevent overdose and improve recovery, with a focus on reducing disparities among American Indians.

For the MTOM evaluation, University of Minnesota Extension partnered with Johns Hopkins Center for Indigenous Health, Great Lakes Hub in Duluth, Minnesota.

OBC:
Capital Recovery Center

Olympia Bupe Clinic (OBC) provides low-barrier buprenorphine treatment for opioid use disorder among high-needs individuals, closely integrated with peer recovery support services. OBC is a walk-in clinic that provides same-day prescriptions for buprenorphine, starting at the first visit, with medication usually dispensed on-site at the time of the visit. OBC's approach to opioid use disorder treatment is based on principles of harm reduction, with the understanding that buprenorphine is a life-saving medication that should be made available with the least possible requirements. OBC is a program within Capital Recovery Center (CRC), a nonprofit community mental health agency established in 1987. CRC provides peer counseling and groups, outreach to people experiencing homelessness, and supportive employment services.

Located in Olympia, Washington, OBC attracts individuals who experience challenges when attempting to access medical and social services. OBC serves a mix of urban and rural areas. The majority of OBC patients have used illicit heroin or fentanyl. Methamphetamine use is common, and most have co-occurring behavioral health conditions. The clinic prioritizes patients at highest risk of morbidity and mortality from opioid use disorder, such as pregnant and parenting persons, those with recent incarceration and/or overdose, and those with complex medical conditions.

For its evaluation, OBC partnered with University of Washington Addictions, Drug, and Alcohol Institute and with Teresa Winstead, Ph.D., Associate Professor of Anthropology and Sociology at Saint Martin's University.

RACHHS:
Rio Arriba County Health and Human Services Department

Rio Arriba County Health and Human Services Department (RACHHS) provides substance use disorder (SUD) case management and social support services in Rio Arriba County, New Mexico. RACHHS serves a population that is primarily Hispanic. The organization has adapted Pathways Care Coordination, an outcomes-based chronic disease case management service delivery model, to SUD and the local community context. The program provides care coordination of wraparound services that address issues like housing, employment, and basic needs, with treatment services.

RACHHS receives program referrals from ReRoute/Law Enforcement Assisted Diversion (LEAD), in which law enforcement can divert individuals with SUD from being arrested to LEAD case managers. Referrals also come via Peer Probation. Housed in the district court, the program includes court support and oversight, with wraparound services provided by a dedicated Community Peer Support Worker. Clients who do not enter through ReRoute or Peer Probation are processed as community referrals, which primarily draw upon Medicaid for funding. All clients receive RACHHS Pathways services and are required to complete a psycho-social assessment after four encounters to inform a treatment plan developed with a clinician, care coordinator, and the client.

RACHHS partnered with i2i Institute for its evaluation.

REACH:
REACH Project, Inc.

The REACH Project, Inc. is a nonprofit organization which works with and for individuals who typically face stigma in health care settings. They serve 55 counties in New York state, with a particular focus on the area surrounding Ithaca, where in-person services are provided. The project of focus for this grant is Respectful, Equitable, Access to Compassionate Healthcare (REACH) Medical. REACH Medical provides innovative care across New York state for people with opioid use disorder and other medically underserved individuals in a low-threshold, stigma-free environment with a harm reduction approach. In addition to providing medication for opioid use disorder (MOUD), REACH offers integrated medical and behavioral health services in a welcoming environment. The clinic uses a chronic disease management model of care, in which a medical provider prescribes MOUD and follow-up visits, while community health workers, case managers, and social workers provide additional services including counseling, referral navigation, and case management, as needed.

REACH Medical partnered with researchers from Weill Cornell Medical College to conduct its evaluation.

CORE collaboratives evaluation

Integral to the CORE project was the implementation of a robust evaluation of the funded programs and the opportunity for grantees to learn with and from one another. Each collaborative evaluated their local program and will be disseminating their findings, with the goal of encouraging the adoption of effective models nationwide and inspiring state and local leaders to invest in evidence-based programs.

Wilder Research, a nonprofit research and evaluation firm in Saint Paul, Minnesota, was selected through a competitive process to provide individualized guidance to each of the community-research collaboratives, including helping create evaluation plans and ensuring evaluation plans were robust, scientifically sound, and designed to produce results that inform the work of other stakeholders. Wilder also provided evaluation technical assistance throughout the course of the CORE project, working with individual sites as requested; developing templates for evaluation plans and reporting; and facilitating training and learning opportunities with experts in the field on topics and methodologies of interest. Because the selected grantees and their evaluation partners have extensive research expertise, the training and technical assistance moved beyond traditional evaluation support to more nuanced and innovative approaches to evaluation and dissemination.

Specifically, learning opportunities included: disparities in substance use disorders by race and ethnicity; translating program findings into policy; working with peers in prevention, treatment, and recovery; data visualization approaches; art-based evaluation methods; Group Model Building; Indigenous evaluation methods; and strategies for communicating substance use research to the news media.

The collaboratives launched their projects during the height of the COVID-19 pandemic. As a result of the pandemic and other site-specific challenges that emerged over the two-year period (e.g., staff turnover), sites had to make adaptations to their programs and service models, as well as their proposed evaluation plans. More information about these adaptations and their implications for the projects and their evaluations is presented in the "Challenges" section at the end of the report.

Focus of the report

This report synthesizes the key themes, lessons learned, and challenges that grantees highlighted in their project final reports. The purpose of this report is to highlight the overall learnings to inform providers, researchers, funders, and policymakers about promising practices and policies to address the opioid overdose crisis and the inequities facing diverse populations.

Because grantee work and populations of interest are unique, this report does not extrapolate to generalize or compare results beyond the CORE project. Additionally, because grantee final reports present a point-in-time depiction of sites and may not fully represent all of the work and outcomes produced by grantees, we do not provide precise counts of the number of sites reporting particular findings.

Detailed information about program operations and evaluation results from each project are available in grantees' respective evaluation reports.

Methodology

In partnership with their local evaluators, the grantees developed comprehensive, robust evaluation plans to assess the impact of their work. These plans, which included both quantitative and qualitative information, as well as both process and outcome measures, were guided by key evaluation questions, which sought to measure:

- **Patient outcomes**, such as: engagement and retention of patients; rates of substance/ opioid use and overdose; access to and utilization of health care; contributors and barriers to recovery capital; mental health; physical health; experiences with stigma; overall program experience and satisfaction; and quality of life and overall well-being.
- **Provider and staff experiences and outcomes**, including perceptions of the program, satisfaction, and extent of training in models of care.
- **Implementation and effectiveness of services/best practices**, such as: patient-centered care; culturally adapted trainings; patient-support practices; ability to meet the needs of clients; and comparison of their model of care to other, traditional models of care.
- **Systems and policy changes and implications**, such as: aligning Medicaid funding structures with practices for expanded harm reduction and SUD care; opportunities and challenges with federal and state grants; and developing the infrastructure for care delivery.

For a list of the specific evaluation questions posed by each of the grantees, see the Appendix.

Data sources

To answer these evaluation questions, the six collaboratives collected data through a variety of primary and secondary data sources. These sources included:

- **Literature reviews** of conceptual frameworks and relevant best practices (e.g., low-threshold care, harm reduction).
- **Patient feedback** via surveys, interviews, and focus groups that gathered information about patient characteristics and needs, goals, and outcomes. In some cases, information was (or will be) collected from patients at multiple points in time (e.g., baseline and targeted follow-up points over the course of care) and from a comparative group of patients not receiving care through the funded grantee.
- **Provider/staff feedback** via surveys, interviews, and focus groups that gathered information about provider and staff practice, knowledge, and perceptions of the program and its impact.
- **Review of electronic health record data/patient charts** to conduct analyses of select patient and service data.
- **Community member feedback** via community forums and methods such as Group Model Building, designed to identify community needs and sources of recovery capital.

For a detailed description of the specific methods used by each grantee, see the Appendix.

Key themes and lessons learned

The following is a summary of innovative and promising practices underway by the CORE grantees to address the opioid overdose crisis in their local communities, early indicators of the impact of this work, and the challenges that emerged during the grant period. These key themes and lessons learned reflect a point in time for the grantees, the end of the grant, rather than the end of the work as their efforts continue.

Innovative and promising approaches to addressing the opioid crisis

Pairing low-barrier treatment with a harm reduction model

For several of the local collaboratives, harm reduction is at the front and center of their low-barrier approach – that is, a focus on reducing the negative consequences associated with drug use. The specific strategies used by the collaboratives vary, consistent with the principles of harm reduction. According to the National Harm Reduction Coalition, "Because harm reduction demands that interventions and policies designed to serve people who use drugs reflect specific individual and community needs, there is no universal definition of or formula for implementing harm reduction" (2022).

For example, REACH employs a de-stigmatizing harm reduction approach to substance use treatment, with a focus on reducing barriers to health services, both related and unrelated to drug use. Their low-threshold MOUD treatment program mainly provides buprenorphine treatment and naltrexone. According to REACH, as a result of their harm reduction approach, persons who use drugs, people experiencing homelessness, and other medically underserved populations in their community have increased access to health care. Patients who were interviewed report this approach was a factor in their motivation to obtain and stay on treatment.

OBC's commitment to low-barrier and harm reduction practices reinforces the clinic's focus on creating a culture of acceptance and support. To that end, the clinic limits urine drug tests to rare use, only to confirm the presence of buprenorphine. The presence of other substances, as well as inconsistent visits or long absences, are all treated as opportunities for conversation and health education, rather than a reason to deny services. CARE patients, for example, are told that return to use will not result in discontinuation of care in their clinic. OBC reports that dismissal from the clinic is extremely rare, limited to situations with credible threats of violence. As a result, according to OBC, participants feel supported to return to the clinic for treatment after they have had a recurrence of use, which helps them continue to move forward with their recovery goals.

> *I would say [recovery] is a lot harder than it looks or people think it is. So, being a little bit more lenient, especially for newcomers or people freshly trying to quit. And don't expect perfection, because it's not going to happen. They're probably going to fail UAs at first. – OBC patient*

MTOM utilizes an Indigenous harm reduction approach that incorporates decolonizing, Indigenizing, taking a holistic approach, being inclusive of diverse cultures and identities, and being innovative. Work is done both upstream (e.g., healing historical trauma, promoting cultural strengths) and downstream (e.g., providing naloxone training to prevent overdose).

RACHHS shifted their model from "treat first" in order to achieve abstinence to focusing on providing harm reduction supports, regardless of whether the client was ready to pursue treatment at that time, in order to enhance well-being. However, the collaborative also points out the systems-level change that needs to occur to support the effectiveness of harm reduction approaches.

> *The RACHHS Pathways model represents a paradigm shift from a model focused on abstinence to one that includes the broader individual and community system of health, social, and legal impacts relevant to [substance use disorder]. This paradigm shift requires that we don't think about drugs themselves, or the people who use them, as "bad"; rather, the "bad" aspects of SUD are in the negative consequences of SUD, and thus the focus of interventions for SUD needs to be on addressing the negative consequences caused by the use of substances. – RACHHS evaluation staff*

According to RACHHS, this thinking is consistent with the literature, which points to the importance of addressing economic stability, education access and quality, health care access and quality, neighborhood and built environment, and social and community context (U.S. Department of Health and Human Services, 2022).

Combating stigma

Despite the diversity of their treatment models, approaches to care, and populations served, all of the collaboratives noted the significant role that stigma associated with substance or opioid use disorders played in the lives of their patients. Stigma operates at multiple levels and can inhibit help-seeking among persons who use drugs until they are in crisis.

Increasing awareness and education about SUD in the community can lessen stigmatizing beliefs and behaviors and increase acceptance and support for those with substance use disorder. Several grantees described patients experiencing harsh judgment and hostility from the broader community, including their families, related to their use. For example, 44% of REACH survey respondents reported experiencing discrimination within their community. OBC patients discussed how education about the diversity of recovery experiences and pathways would also help foster support for the trial and error involved in the recovery process.

> *Key informants reported that understanding how generations of colonial harm could push individuals towards harmful substance use allowed community members to be more understanding and accepting of [persons who use drugs] in their communities and even helped reduce self-stigma among those who use drugs.*
> *– MTOM program staff*

> *Even my family wasn't very understanding and was very harsh and down on me and made me feel like, "Well, I'm an addict, you know… that's all I'll be is an addict." Yeah. And so … I had to prove them wrong. …And so sometimes, we just need a little bit more support. We just need someone in our corner to tell us, "Hey, we can do this. We can get better. We can fight for our lives." – OBC patient*

Many of the collaboratives have been working to eliminate stigma experienced by patients within their own programs through their harm reduction approaches. Beyond the stigma experienced in the community, several grantees reported that their patients have had stigmatizing health care experiences. Nearly half of Project CARA participants reported that they had previously avoided seeking substance use disorder treatment out of a desire to avoid judgment from providers. Similarly, many REACH patients who were interviewed expressed frustration with health care professionals who would focus on past or current substance use during medical visits for other health concerns, decreasing their motivation to seek care or access MOUD.

To combat these experiences, the University of Minnesota Extension grant programs included education and training around opioid use, including naloxone training and distribution, MOUD, and the impact of stigma. Across programs, patients were quick to note how their experience with providers in CORE programs contrasted with other health care settings.

- Almost all (98%) of REACH survey respondents reported not feeling discriminated against when receiving care at REACH.
- According to OBC program staff, being treated with "kindness" and "interest" was felt as exceptional and not typical of patients' experiences in other medical or treatment settings.
- Project CARA patients had come to expect to be treated poorly by health care providers and were "pleasantly surprised" by the non-judgmental care they received at Project CARA, with one noting, "I was a little bit shocked at how respectful it was."
- Both survey and interview respondents at CARE reported that the CARE Clinic was a caring, non-judgmental, safe place that provided support and encouragement during their pregnancy and recovery journey. They felt that the staff "accepted and respected them" and went "above and beyond" for them, experiences they rarely had with other health care providers.

> *I am always welcomed here, never turned away. I feel if I went to my primary care provider in search of the same help, I might get judgment, and even the fear of judgment would maybe turn me away. So, the kindness in the model, the way they welcome you with open arms, is probably what I would say is most important about [OBC]. – OBC patient*
>
> *[REACH is] very, very good. Like actually, when I first called [REACH], I was scared to even tell anything because I've had such negative experiences, even when I used to get my Suboxone, the first time around when I went through treatment. It was totally different from there, … —I think they kind of knew I was holding back a little bit because … I kept hesitating but I was so scared to tell anything, because every time I always tell it, it's used against me. – REACH patient*

> *All of them [at CARE]. They're all awesome. All the doctors that I've met have been super. What is the word I'm looking for? Non-judgmental. I could say anything to them or how you usually feel at a doctor's office. As someone who has substance abuse problems, usually you feel like dirt. I've had doctors treat me like that before, but not here. They're all awesome. Everyone. – CARE patient*
>
> *Well, ever since I've been on methadone, any time I go to a hospital or go to a doctor's office, or when I went to the health department here for prenatal care [in a past pregnancy], as soon as they find out you're on methadone, it's like they treat you completely different. They make you feel like you're basically a junkie. They are rude to you. I was so scared about it this time that it was gonna be the same [judgmental treatment like in a previous pregnancy]. But it hasn't. It's been consistent, the same people, and they've been really nice and supportive. – Project CARA patient*
>
> *What people tell me after they attend [training] sessions that I do is that it's very helpful to them, that it's eye-opening... mostly in the area of just identifying their own bias and then understanding what the research says, for what I teach about as medications for opioid use disorder. So, giving them new language they can use to not be stigmatizing, making sure they know the facts about it so that they're speaking about it and not spreading misinformation. – MTOM program staff*

Some grantees also reported how community and provider stigma fed into self-stigma and negative self-perceptions among persons who use drugs, further impeding help-seeking.

Utilizing peer supports

For some of the collaboratives, peers play a major role in supporting patients' treatment and recovery, in some versatile and innovative ways.

- In OBC, Peer Recovery Specialists played multiple roles and ultimately allowed patients to conceive of recovery as achievable. According to OBC, this included serving as "care navigators, assisting patients in obtaining insurance, ID cards, transportation, medical and behavioral health care, and housing, and in managing transfers to residential and outpatient treatment programs. Peer Recovery Specialists served as leaders on the clinic team and as advocates for patients in clinic decision-making and with social service agencies."
- Program staff in MTOM are committed to "training up" people in recovery to be future program champions. Program sustainability is dependent upon "training the people to train their own people." For example, a MTOM community member in recovery was trained in trauma-informed yoga, which they now provide through treatment courts, in which offenders with substance use disorder get engaged with a treatment program. The community member was empowered to do this as a result of retreats focused on developing leadership skills among peers.
- One of the most frequently used treatment pathways among RACHHS clients was "mind, body, and spirit" (59%), which encompasses peer support and recreation. In this model, peer probation was added within the district court to help individuals who are incarcerated transition back into the community. Wraparound services are provided by a dedicated Community Peer Support Worker who meets with the individual at least weekly for 6 to 18 months.

Although the CORE programs varied in how peer supports were offered to clients, these supports appear to have made a notable difference in clients' recovery. RACHHS clients appreciated having care coordinators with lived experience who are "capable of speaking a shared language." New OBC patients reported a high degree of satisfaction with clinic services at three-month follow-up, especially Peer Support Specialists; 90% found them to be helpful in their recovery. According to OBC, the prominent role of peers as sources of guidance and knowledge enhances patients' belief in the possibility of recovery. The involvement of peers creates a safe, supportive, judgment-free environment and conveys that people with lived experience of substance use are respected and valued.

> *The peer counselors…They are why I'm going to be coming back and why I actually feel it [OBC] is so trustworthy, and why I started liking this place and actually started coming to this place, because [of] the peer counselors that talk to me. They actually sit down and will sometimes sit there for like an hour to just talk about what's going on and what I can do to help make it better. – OBC patient*
>
> *And peer support. They're great. I've spoken with one of the ladies there and she's fantastic. And she's been through what I'm going through now. And she's got a lot of empathy and really, really helps to have someone who knows what I'm going through, who went through the same thing, because, really, you don't know until you're in it. And I really appreciate that she was there to help me.*
> *– CARE patient*
>
> *RACHHS Pathways clients described care coordinators as having shared experiences, being able to understand, and being capable of speaking a shared language with them–attributing that peer relationship as the most meaningful difference in their engagement and success as clients.*
> *– RACHHS evaluation staff*

In some cases, grantees wanted to provide more peer supports but could not for various reasons, including COVID-19. For example, peer leaders in MTOM received training through their Changemaker retreats, which could not be fully implemented due to the pandemic (i.e., no in-person gatherings and staff needed to spend significant time on the pandemic response), preventing the development of even more peer leaders. Meanwhile, in retrospect, Project CARA noted that they would have liked to have contracted with patient advocates and Peer Recovery Specialists to join their research team in order to add more voices to the table and build stronger relationships.

Addressing social determinants of health

For many people who use drugs, there are economic and social factors that influence their use and overall health. Several of the collaboratives described how they provided wraparound services to clients, beyond treatment, to address these social determinants of health.

RACHHS uses the Pathways Care Coordination model to provide care coordination and wraparound services for individuals with substance use disorders to address issues like housing, employment, and basic needs that help support SUD management—whether or not clients choose to pursue treatment. Basic needs was one of the most frequently used pathways among RACHHS clients (62%), who accessed food, clothing, utilities, and identification cards through the program. Financial instability (57%) and lack of transportation (56%) were the top barriers to progress for RACHHS clients, further underscoring the role of social determinants of health.

The REACH clinic uses a chronic disease management model of care, in which a medical provider prescribes medication for opioid use disorder and conducts follow-up visits, while a community health worker and social workers provide additional case management and referral services. While many social determinants of health were seen to be significantly affecting their patients' ability to take care of their own health, such as not having reliable telephone access and transportation, REACH responded by providing flexibility and other options for those patients, such as telehealth care through the use of outreach workers in their community.

Project CARA's comprehensive outpatient program also incorporates medical and wraparound services, substance use treatment, and behavioral health care. Data suggest that these services are helping patients meet their goals and improving their access to care. Among the barriers and facilitators to care assessed in the two groups, Project CARA patients reported fewer difficulties with barriers such as transportation, distance to care, and obtaining or using Medicaid compared to non-Project CARA patients.

MTOM staff prepare wellness baskets for their patients, including food and recipes, and provide nutrition education for people in recovery to address clients' concerns at the intersection of recovery and nutrition. This wraparound support also includes providing resources in the areas of employment/finances, housing, child care, and transportation, which were viewed as a single reinforcing feedback loop, such that increased access to one increased access to others. Recovery support services; access to mental, substance use, and physical health services; and wellness support were seen as forming a reinforcing feedback loop such that one helps promote the other. Having a connection to one's culture and cultural events further reinforced this feedback loop.

Prioritizing patient-centered, trauma-informed care

Another hallmark of the approach adopted by the collaboratives was providing patient-centered and trauma-informed care. Project CARA's evaluation intentionally included survey questions aimed at measuring the tenets of trauma-informed care (including safety, trustworthiness and transparency, peer support, collaboration and mutuality, and empowerment and choice), and their efficacy in providing this approach to care (Trauma-Informed Care Implementation Resource Center, 2021). Results indicated that Project

CARA patients were more satisfied with their care, reported a higher level of interaction with respectful clinicians, and had their prenatal care options explained more frequently ($p<0.01$ for all) as compared to the individuals who did not receive perinatal substance use disorder care at Project CARA. These responses represent the collaboration, mutuality, and transparency principles of trauma-informed care.

Furthermore, Project CARA reported that their analysis of chart notes found that the most common theme (present in half of all notes) was the use of patient-centered language ("Guided by Patient"). Providers used language that honored patient autonomy about appointment goals and next steps, and incorporated patient-centered principles of shared decision-making, therapeutic alliance (collaboration between therapist and client), and individualized and holistic care.

OBC began implementing debrief sessions after clinic hours that developed during the evaluation period. Every night, after clinic, Peer Recovery Specialists, support staff, medical providers, and the nurse care manager would discuss clinic processes and patients from the day, allowing the team to reflect on practices and identify opportunities for improvement.

MTOM's community-led approach was heavily centered on a trauma-informed approach that was sensitive to the impact of historical trauma. Tribal communities were not only requesting technical assistance related to naloxone training to prevent overdose, but around healing historical trauma, the core of their trauma-informed approach.

> *We've actually formalized something that I think has really made a difference in strengthening the clinic team, which is an after-clinic debrief session that we have almost every night, where we unpack events that happen with particular patients, or topics of mutual interest with prescribers, peers, and the Nurse Care Manager, and receptionist. And we all exchange ideas about the day's patients, especially if there's something that didn't go right. It's kind of like an opportunity…where we try to figure out what happened, why, what went wrong? And what can we do differently so that won't happen the next time? And it's been really good, because people can identify, "I wish I had said this," or "I wish I had talked to that person about this." And it allows us to connect with each other in a very respectful way, as well as improve our processes. – OBC program staff*
>
> *I think if you're… going to talk about addiction, like, people aren't necessarily going to show up. But if you're going to talk about ACEs or you're going to talk about historical trauma, like in Tribal communities, people can relate to that and be like, "Okay, maybe this is why they act a certain way." And, as an example, I have one of my youth coordinators, you know, when you talk about historical trauma and there's some boarding school stuff in there, and he said it clicked some light bulbs for him, like about sometimes his dad went to a boarding school, about why maybe his dad did or said things the way he did. – MTOM program staff*

Increasing accessibility of medications for opioid use disorder

Most of the grantees identified a need to reduce barriers for patients to access medication for their opioid use disorders, often referred to as low-threshold MOUD (medications for opioid use disorder). CARE reduced barriers by prescribing at-home initiation of buprenorphine (as allowed under COVID-19 pandemic regulations) rather than requiring patients to be observed in the clinic when taking it.[1] When CARE tested this approach, patients had high retention and urine screening demonstrated that they were consistently using buprenorphine. Patients also reported high levels of satisfaction with low-barrier buprenorphine treatment at home, related to dosing and how their body responded to it.

Project CARA also found that patients who used buprenorphine tended to perceive that their care was higher quality than those who were not using buprenorphine (p=.0016). However, Project CARA identified racial differences in who was prescribed buprenorphine (p<.0001), with a higher proportion of patients without a buprenorphine prescription identifying as Black.

Patients at OBC reported support from clinic staff with accessing medications (e.g., through insurance and convenience at the clinic) and responsiveness to patient needs with regard to the prescription dosage, formulation, and duration. Participants reported clinic providers worked with them to find the right dose to help them reduce cravings and withdrawal symptoms. A key element of establishing the right dosage was to create a trusting environment in which patients can report honestly how the medication is working for them.

> *I was completely honest about what I was using, and we started at, like, two per day [16 mg/day] and now I am at three per day [24mg/day], and it's my morning, noon, and night. It's become clockwork, and it's been great. I feel so good, I just thank my stars I can enjoy life again. That is so huge for me, I am very grateful.*
> *- OBC patient*
>
> *It is important that this be a low barrier service, which means that there's no appointments necessary to engage in the services and that people are able to access medication on site. And we are only testing for the presence of buprenorphine in order to be in compliance with federal guidelines as dictated by the [Drug Enforcement Administration], in order for us to stay open – not punitively, because that [urine analysis testing] can be a really stigmatizing process at most treatment agencies and so we are really intentional and adamant that we are not going to engage in that type of punitive patient interaction. And…that we have people with lived experience that are working with patients alongside doctors and other medical providers, and that everybody is equally recognized as a professional within the model and recognized as having power in the model of care that we deliver.*
> *- OBC program staff*

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[1] When the U.S. government declared a public health emergency on January 31, 2020, in response to the COVID-19 pandemic, federal lawmakers invoked an exception to the rule set forth in the 2008 Ryan Haight Act requiring in-person evaluation to prescribe a controlled substance, including buprenorphine for the treatment of opioid use disorder. See Drug Enforcement Agency "Letter to DEA qualifying practitioners," published March 21, 2020: https://www.deadiversion.usdoj.gov/GDP/(DEA-DC-022)(DEA068)%20DEA%20SAMHSA%20buprenorphine%20telemedicine%20%20(Final)%20+Esign.pdf

One of the most significant and impactful adaptations to emerge out of the COVID-19 pandemic was the shift from in-person buprenorphine access to telehealth-delivered MOUD**,** which wholly transformed one grantees' service model. Beginning in March 2020, REACH shifted its programming entirely to a telehealth model, which included providing MOUD to patients via telehealth as a result of federal regulatory changes related to the COVID-19 Public Health Emergency that allowed the initiation of buprenorphine without an in-person visit. Although some in-office care has resumed, REACH providers continue to conduct visits virtually, via audio-video technology on tablets, computers, and smartphones. Some of REACH's patients are rural and do not have access to broadband, so the clinic also conducts telehealth visits via landline phone. Besides computers and landline phones, REACH is also able to communicate with clients via text message, using a HIPAA-compliant platform with a text messaging component.

With the shift to telehealth services, REACH was able to expand the reach of their program, from serving 52 zip codes as of March 2020 to serving 68 zip codes just one year later in March 2021.

The shift to telemedicine, however, presented challenges, including the need for patients to have reliable access to video and voice capable devices. Many patients did not have access to such technology resources. To ensure equitable access, REACH initiated an outreach program to address the lack of digital technologies for low-resourced populations, such as people experiencing homelessness. This involved equipping an RN and community health worker with smartphones so that housing/resource unstable patients could participate in telemedicine appointments.

The data indicate substantial usage of the telemedicine option. Out of the 787 REACH patients who completed an initial assessment between September 2019 and December 2020, 605 of them used telemedicine for over 50% of their buprenorphine clinical visits. Most of these visits were tele-video (75%), with the remaining telemedicine visits conducted over the phone. After six months, REACH had retained over 70% of their patients, likely due to the expansion of telemedicine and efforts to ensure access, such as the outreach telemedicine program. For many clients, the convenience of telemedicine was paramount.

> *[Telemedicine] made everything so much easier because I didn't have to find rides or all-day bus trips and they were also able to use the pharmacy that I chose. It was all so convenient and it didn't [affect] my work schedule, probably could even do teleconference during lunch break. They make it so easy. – REACH patient*

Centering equity and culture

All of the collaboratives attended to issues of health equity and disparities in their work and examined issues of disproportionality for certain groups in terms of their access to services, experiences with stigma, health care utilization, and other systemic barriers. This includes people of color, Indigenous populations, those experiencing homelessness, incarcerated individuals, and pregnant and parenting persons.

Equity and culture were particularly central to the work of MTOM. MTOM's opioid programs specifically aim to address health equity with a community-led approach that is sensitive to the impact of historical trauma among Tribal Nations. The work happens both upstream (e.g., healing historical trauma; promoting vast cultural strengths) and downstream (e.g., naloxone training to prevent overdose), and includes both tribal partners and non-Indigenous county partners. An important foundation to this collaborative work is the acknowledgement by the University of Minnesota's Extension of past and current injustices perpetuated by the University of Minnesota.

The work of MTOM is deeply and intentionally community-driven and responsive to community needs, identified *by* the community. Tribal community partners often took initiative in requesting programming that fit their needs, particularly from the American Indian Resource and Resiliency Team (AIRRT). In addition to the programming AIRRT members initially developed based on the needs identified by community members, such as historical trauma education and mind-body medicine, they developed lateral violence training and parenting classes at the request of community partners. And, as a result of trainings like Healing Through History, which promoted empathy among non-Indigenous county partners, Tribal Nations and county agencies further increased communication and collaboration.

All MTOM partners also fully recognize the unique cultural factors involved in opioid use, and recovery, by Tribal communities. MTOM staff and program partners stress that reasons for opioid use vary by population, such that contributing factors for Indigenous communities, such as historical trauma, may differ from contributing factors for white rural communities. Thus, cultural adaptation of programming is important for implementing effective harm reduction interventions in Tribal communities. Beyond adaptation, however, members of AIRRT point out that this cultural context differs from community to community, even among the closely related Tribal communities who participated in Extension programming.

> *This is always sort of the balance – this work and healing, it's individual and collective. It's both. We can't wait for the collective to get there, because the collective gets there because the individuals, enough individuals get there, right? So, it's like a both/and, like we need the collective to be working towards it, but we also individually have to be working towards our healing, our health and our well-being and that ultimately helps the collective. – MTOM project staff*

Early indicators of impact

As noted earlier, all of the local collaboratives had to make adaptations to their programming and their evaluations due to the COVID-19 pandemic and other site-based challenges that emerged over the course of the grant. As a result, and given the short-term nature of the grant, much of the outcome data available at the end of the grant period is preliminary in nature, as projects continue to collect data around client outcomes and program impact. Nevertheless, several of the evaluations revealed early indicators of program impact.

Progress toward recovery outcomes

The effects of the COVID-19 pandemic on grantees' evaluations, coupled with the two-year timeframe of the grant, limited the availability of outcome data for this report. However, results suggest evidence of progress in clients' recovery as a result of the work by the collaboratives.

One of these markers was the observation of ***decreased substance use*** among clients in some communities. Three-month post-enrollment survey results for new OBC patients showed a decrease in the percentage of people using heroin (45.7% to 25.7%) in the prior 30 days and a reduction in near-daily use (24.3% to 4.3%), as well as a decrease in the use of non-prescribed buprenorphine in the past 30 days (25.7% to 8.6%). OBC also reported an increase in the use of prescribed buprenorphine in the past 30 days (35.7% to 76.8%), and near-daily prescribed buprenorphine (15.7% to 72.5%). According to established OBC clients, the progress in their recovery was a result of the culture of acceptance and support and low-barrier access to treatment. Meanwhile, Project CARA clients had lower rates of positive urine drug screen at delivery as compared to individuals who sought care externally (6% to 39%, p=.06).

Some sites also reported improvements for clients when it came to their ***health and well-being***. For example, new OBC participants reported significant improvements between baseline and follow-up surveys in patients' emotional health (accomplishing less than desired, doing work or activities less carefully than usual, feeling calm and peaceful, having a lot of energy, feeling downhearted and blue), and in the extent to which pain interfered with work, or physical health or emotional problems interfered with social activities. Overall, the majority of new OBC clients (92.8%) found the clinic helpful in improving their well-being and quality of life.

An interesting finding to emerge from two of the collaboratives serving pregnant persons in recovery from OUD was an impact on ***breastfeeding***. Those who received treatment at CARE were more likely to be breastfeeding at maternal discharge than matched controls (Hensel et al., 2022), indicating the program led to improved breastfeeding outcomes for CARE patients. Similarly, higher rates of breastfeeding (82% vs. 39%, p < .001) were found among Project CARA patients as compared to individuals who sought care externally.

Patient engagement and retention

While not all CORE grantees had outcome data available at the end of the grant, many of the collaboratives did report high levels of patient engagement in services. For example, the three-month follow-up results for OBC showed a high degree of new patient engagement in treatment based on buprenorphine prescriptions. Most (84%) received two or more prescriptions, with a total of 47 days' supply (mean and median) within 90 days after the initial visit, indicating a high level of engagement in buprenorphine treatment after enrollment. REACH also reported high rates of patient engagement, with 92% of REACH patients having a REACH provider that they see on a regular basis.

Compared to patients who sought care elsewhere, Project CARA patients received prenatal care earlier in their pregnancy, more often throughout their pregnancy, and were more likely to receive substance use treatment services. For example, Project CARA patients typically started SUD treatment either before their pregnancy (52.9%) or during their first trimester (41.2%), compared to patients from other clinics, who typically began SUD treatment later, either in the first (37.5%) or second (37.5%) trimesters. Project CARA also found high rates of engagement among patients on buprenorphine, who had more points of engagement in care than their counterparts with OUD who were not treated with buprenorphine; they had both more prenatal care visits and more postpartum visits. Surveys of Project CARA clients found that nearly 90% of patients from Project CARA reported receiving the number of prenatal visits they perceived they needed. Furthermore, the program found a direct association between increasing levels of SUD severity and the number of total visits, suggesting that patients with higher acuity are indeed receiving more care due to their complex needs.

Some of the collaboratives also reported high rates of patient retention. As noted earlier, more than 70% of REACH's patients were retained for six months or more. CARE's retrospective cohort study on home induction demonstrated that CARE's home induction of sublingual buprenorphine was associated with high rates of treatment retention and adherence (Kelly et al., 2021).

Patient satisfaction

Preliminary data, including patient interviews, indicate high levels of patient satisfaction with the services received through the CORE grantees. Common themes included feeling supported, respected, heard, and not judged.

For example, OBC reports that many established patients reported that one of the most impactful aspects of clinic practice was the unconditional support they felt when they came to the clinic. CARE clients who were interviewed reported having a positive experience with all members of the CARE Clinic team, expressing high levels of trust in the staff; almost all patients were satisfied or very satisfied with the CARE Clinic. In comparison to those who received care elsewhere, Project CARA patients reported greater satisfaction with their care (prenatal and substance use), felt that providers were more respectful, and that they were more informed of their treatment options. REACH patients also tended to report high levels of satisfaction with the quality of care provided by REACH, describing that they felt "heard" and "cared for."

> *Being here, I get the support that I need. It's not just the Suboxone…but having the emotional support when you need it is a very big thing which they [OBC] definitely help with…I'm thankful, thankful for this place and the support that they provide for everybody. – OBC patient*
>
> *I trust all of them…Because they have not steered me wrong so far, and because they're professionals, and they got where they're at for a reason, and... I feel that trust in between them. They haven't broken up my trust at all. And they have done great with me. I feel very comfortable there. – CARE patient*
>
> *I feel like REACH is more hands-on. They're more involved, they actually, I mean, not other providers and they care too, but I feel like REACH is more, you know, personal and more for you because it has to do with, you know, recovering addicts and whatnot. So they make sure that everyone—I feel like they care about their patients. – REACH patient*
>
> *I was worried they were gonna make fun of me, or that I was gonna feel badly for being an addict. But I felt like they were very compassionate and understanding, and I liked that. – Project CARA patient*

Collaboration

While not a direct outcome for the clients served through the collaboratives, the projects did appear to facilitate collaboration and partnerships on multiple levels. This is particularly evident among the partners of MTOM, who have been working collaboratively on numerous opioid grants over several years, which has built and strengthened relationships between county public health agencies, Tribal Nations, and University of Minnesota Extension. For example, Extension's AIRRT staff are viewed by the Tribal Nations as part of the community, as they are in the communities doing the work.

> *I think that maybe we talk more as a region as a result of this, because having these meetings where we're purposely brought together and talking about trends—I think lessons learned from one county can be applied to another county and so on…I think there's more relationships among people that were doing similar things that maybe you just don't know each other before. – MTOM county public health partner*
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> *The AIRRT was described as leaders in their Tribal communities. This sentiment was shared by key stakeholders in the communities, who often discussed the AIRRT as their main contact for the rest of UMN Extension. – MTOM evaluation staff*

Although the extent of collaboration was limited by the restrictions of the COVID-19 pandemic, some grantees succeeded in aligning around their mutual goals and patient populations. Most notably, CARE and Project CARA have forged an ongoing partnership in their shared efforts to serve pregnant persons with opioid use disorder. The grantees also shared data collection tools with one another; for example, REACH used one of OBC's tools when developing their survey. And because of a shared interest in addressing the impacts of stigma, grantees convened on multiple occasions to discuss how each was addressing and measuring stigma.

Challenges

The collaboratives faced a number of challenges implementing their projects and evaluations, largely due to the COVID-19 pandemic, which required all involved stakeholders to make adaptations to the service model and the evaluation. In general, the timing of the grant was such that programs had to prioritize COVID responses over research efforts.

Data collection and study participation

The amount and breadth of data grantees were able to collect during the grant period was limited by the pandemic, restricting the extent of outcome data available for this report. In some cases, it also limited or fully eliminated participation by some partners in the project and evaluation overall. The lack of a tribal resolution offering explicit consent for research with one of the Minnesota Tribal Nations served by the University of Minnesota opioid grants meant that the Tribal Nation was ultimately unable to participate in the MTOM project and evaluation. Further, relationship building takes time and in-person interactions—but, due to COVID, the evaluation team was not able to build relationships during this time. As a result, the two South Dakota Tribal Nations served by Midwest opioid grants were ultimately not included as part of the project, and inclusion of one of the Minnesota nations was severely limited.

The pandemic also hampered the evaluation and data collection efforts of other grantees. REACH had to delay the timing of follow-up data collection and certain patient surveys. Project CARA was unable to access hospital data due to recent administration and leadership changes within the hospital system, which complicated the process to request and obtain data. OBC was unable to access secondary health care utilization data from the state system due to state staff prioritizing the COVID-19 pandemic. Project CARA noted the impact on study recruitment; for much of the study period, only passive recruitment of participants was possible (e.g., flyers), rather than more active, in-person recruitment for the study. This potentially limited the number of participants in their evaluation overall. Because in-person groups were not feasible until spring 2022 due to the pandemic, CARE was unable to compare a group model of care to their individual model of care.

And, while at least one grantee (REACH) made revisions to their data collection protocols to include questions that addressed the impact of COVID-19, other grantees acknowledged that they did not measure patients' experience with care pre-COVID vs. post-COVID, so it is unknown how COVID-19 may have affected patients' experience.

Although not COVID-related, issues with ineffective electronic health record systems were another factor in restricting RACHHS' access to certain data and resulted in data collection delays and the inability to gather certain data.

> *The original evaluation study became impossible to complete due to staff turnover and loss of staff time related to COVID-19 exposure and illness, radical changes in practice given COVID restrictions, and a new and ultimately ineffective electronic health record system implemented to meet Medicaid billing requirements. COVID response meant that staff never had a chance to customize for RACHHS' practice, nor could staff be adequately trained. After 10 months of trying to use the electronic system, RACHHS moved to an all-paper system. – RACHHS evaluation staff*
>
> *Many of the people involved with UMN Extension's projects who work in substance use programming reported increased burdens caused by the COVID-19 pandemic. Rates of overdoses have consistently increased over the past decade and were exacerbated by the pandemic. In 2020, American Indian and Alaska Native individuals had the highest rate of fatal overdoses compared to other racial/ethnic groups (Friedman & Hansen, 2022). Across the service area targeted by these grant programs, especially in Tribal communities, there were increased non-fatal and fatal overdoses. Substance use program service providers in the two Tribal communities reported increased client loads, community overdose deaths, staff turnover, and difficulty recruiting and maintaining personnel. Tribal Nations were disproportionately impacted by the COVID-19 pandemic and Tribal resources were stretched thin. Early in the pandemic, American Indian people had higher rates of COVID-19 infection and mortality compared to whites (Arrazola et al., 2020). Non-essential research activities are not a priority in these situations. Relatedly, many of the county public health partners had to shift limited resources to COVID-19 response and either stop or limit their participation in substance use programming efforts. – MTOM evaluation staff*

Staff burnout and turnover

Several of the grantees also reported challenges around staff burnout and turnover, some due to COVID-19 and others due to organizational changes or the nature of the work itself. Surveys of REACH staff found that most felt that the workload is very high and provider schedules are often overbooked, causing at least some amount of distress. The majority (68%) of survey participants felt at least "moderately" emotionally exhausted at work, with 36% of participants feeling "a lot" or "extremely" emotionally exhausted. Additionally, a majority (71%) of REACH staff who were surveyed reported being affected by the traumatic stress of patients at least "sometimes." Nevertheless, REACH staff believe that the work they do is impactful and meaningful and felt they still maintained a high level of empathy and consideration for their patients and colleagues, despite internal feelings of exhaustion and burnout.

RACHHS also experienced staff turnover and loss of staff time, largely related to COVID-19 exposure and illness. In MTOM, concerns about burnout stemmed from the amount of responsibility that fell on AIRRT for forming and maintaining relationships with Tribal partners and stakeholders. OBC's parent organization experienced significant turnover in leadership, leading to a degree of organizational instability and staff turnover. The conflicting demands on staff interfered with tracking of patient services provided by Peer Recovery Specialists, as well as with the clinic's ability to adapt promptly to constructive input received from patients. This was true for Project CARA as well, which experienced multiple changes in the leadership of the research team over the two-year period, as well as changing leadership of the local hospital system, all of which impacted the overall consistency of the project.

Program sustainability and funding models

Many of the collaboratives raised concerns about sustaining their projects for the long term, citing current funding models as a major barrier. These collaboratives described the need to seek out and braid multiple funding sources (i.e., grants) in order to sustain their projects. OBC identified a combination of federal-, state-, and county-level funding sources, as well as billing Medicaid directly for patient encounters. MTOM and Project CARA also rely on multiple funding streams due to insufficient third-party reimbursement rates, which fail to fully support their care models. The vast majority of Project CARA patients have insurance coverage through the state Medicaid program, so reimbursement rates are dependent on rates set by the state. Often, state Medicaid programs reimburse at a lower rate as compared to Medicare and private insurance, thus requiring programs to seek out additional funding streams to expand and reach patients.

> *Staff also struggled to adjust their practice to Medicaid limitations. That is, they looked and found ways to work around funding limitations. Care coordinators still provided transportation, advocated for clients without clients sitting with them, or spent more than allowed time with clients. – RACHHS evaluation staff*

Both MTOM and RACHHS note that there are benefits of grant funding, which offers more flexibility than Medicaid reimbursement and allows programs to implement innovative programming and use funds to meet the immediate basic needs of clients without a full assessment and diagnosis first.

Impact of limited grant timelines

Despite the flexibility offered by grant funding, the projects were also quick to point out that the short-term nature of grants require dedicated staff time to seek out and manage funding and fail to provide long-term stability or security.

The short duration of grant cycles has other consequences as well, especially for community-based work. The timelines are not always amenable to ensuring that project plans are community-driven. In the MTOM project, Extension staff noted the importance of making a commitment to sustaining relationships and supports with Tribal Nations, even when the grant funds end; harm has been caused in the past when services stopped after grants ended. The short-term nature of grants can hinder the building and sustaining of relationships, which is critical to community-based work. To counteract this, and foster sustainability, MTOM project staff are hoping to "train up" people in recovery to be future program champions.

> *When you're talking about being sustainable, training the people to train their own people, they own it. But that should be beginning at the onset, not when you feel like, uh oh, the funding's almost done … Looking at that sustainability and letting the partner agency, community own it, train them in those evidence-based research practices so they're getting the best of the best, you know, information and then let them own it and stay in touch providing both evidence-based strategies. Especially in these times now, information, correct information, is so vital...*
> *– MTOM project staff*

The two-year timeframe of this grant to develop evaluation plans, analyze, and report findings left a condensed amount of time for data collection in particular, as described above. Typical grant periods make it difficult to absorb any delays, so years of continuous COVID effects inevitably altered the entirety of the project. Even with flexibility and no-cost extensions, all projects had to scale back or modify the scope of their evaluations.

Evaluation of their programs continues for most of the grantees, and the information presented within reflects what was able to be measured during the grant period.

Generalizability and selection bias

The collaborative projects were designed to be implemented in communities, and to consider local contextual issues. While this is a strength of the projects overall, it does potentially limit the generalizability of the findings outside of those local communities. Thus, it is unknown the extent to which the same results would be achieved in other contexts.

In addition, while each of the projects focused on providing care to slightly different populations, selection bias is a potential issue for all of the evaluations. The reason patients chose to seek and receive care at a project site, instead of another community program, is not known. Thus, it is possible that the projects attracted participants with certain characteristics that contributed to the achievement of certain outcomes.

Conclusions and recommendations

Although the work of the collaboratives is ongoing, as are evaluation efforts, the findings indicate grantees are implementing a range of innovative and promising approaches to address the opioid crisis in their respective communities. For many, a low-barrier, harm reduction response is at the front and center of their approach, including a focus on reducing barriers to health services more generally. This includes increasing access to medications for opioid use disorder, which in some cases is happening as a result of the novel use of telemedicine to initiate treatment. Efforts to address the role of stigma in multiple contexts (including community and provider stigma) are also prevalent, as is the use of peer supports, who help create a safe, supportive, judgment-free environment for patients and convey the message that people with lived experience of substance use are respected and valued. Prioritizing trauma-informed care and attending to issues of health equity, disparities, and culture are also central to many approaches, as is addressing social determinants of health that influence patients' overall health and well-being.

Results from the evaluation to date suggest early indications of impact, including: decreased heroin and non-prescribed opioid use, and increased use of prescribed buprenorphine; improvements to aspects of physical and emotional health; and improved breastfeeding outcomes for pregnant persons, such as the increased likelihood of breastfeeding at maternal discharge and higher rates of breastfeeding compared to peers in other programs. Patient data also indicate a high degree of satisfaction with the care patients are receiving from the programs. And the initiative itself has fostered collaboration, building on and strengthening existing community relationships, and facilitating new partnerships between grantees.

Despite project challenges and adaptations over the course of the grant, largely due to COVID-19, the lessons learned to date inform suggestions for providers, programs, and policymakers to consider in their efforts to address the opioid epidemic.

Program and provider recommendations

- **Expand needed services to increase access to care**. The grantees identified several opportunities to expand services, beyond OUD treatment, addressing both gaps in and access to care. This includes adding services such as on-site mental health support, peer-facilitated support groups, and transportation assistance. Expanding accessibility by extending clinic hours, and integrating telemedicine into care models, could significantly increase access. Developing a decision tool to identify high-risk patients when they enter care could help increase access to care for those most in need.
- **Offer training to providers and community partners.** Several of the grantees identified the need for training of providers and partners engaged in this work, not only

to increase the capacity of the workforce but to promote effective practice. This includes training providers so they are comfortable with and capable of prescribing medications like buprenorphine and managing opioid use disorder, especially for populations with special needs such as pregnant persons. To shift practice paradigms around harm reduction and trauma-informed approaches, more training is needed for providers in behavioral health, health care, and social program spaces. Expanded training (e.g., around historical trauma) for community partners working with specific communities, such as Tribal Nations, could help non-Indigenous allies better partner with Indigenous community members.

- **Expand collaborations to elevate other voices in the work and research.** To include the experiences of multiple perspectives and enhance the work overall, it is important to include a diversity of partners in the work. Although some grantees utilized peer supports, other grantees noted the desire to do this in the future, in order to add more voices to the table, build stronger relationships, and educate patients about the purpose of research. Forming advisory councils who can help guide programming and/or evaluation could also be beneficial. This is especially important in community-based work, and when working with Tribal Nations, to ensure processes are vetted and approved, and to guide engagement and recruitment.
- **Form community-based teams to initiate similar projects in local communities.** Organizations should form community-engaged and action-oriented teams to spearhead similar health equity-focused projects in their communities. These teams could focus on making low-barrier, peer-facilitated buprenorphine treatment and other harm reduction support services available, with particular attention to meeting people who are seeking treatment where they are. Local organizations such as the collaboratives included in this report could act as leaders and/or facilitators of these efforts, providing guidance and technical assistance to other communities interested in replicating these approaches. Contact the grantees involved in this study to inquire about opportunities for consultation.
- **Disseminate findings that educate both communities and funders.** While dissemination of findings to inform the field and policymakers is essential, it is also crucial to share findings with other key constituents often overlooked in dissemination efforts. For example, identifying ways to share results with the local community—such as presenting at community meetings and events, sharing results on social media, and distributing reports to key stakeholders—is critical to increasing general awareness, education, and support in the community for local programs, reducing stigma and potentially enhancing program recruitment and engagement. Further, educating funders—for example, by strategically distributing reports and summaries to decision-makers at funding organizations—is important to ensure funding streams are flexible enough to support community-driven and culturally responsive practice and research. Importantly, plans for dissemination should be built into the early stages of a project to ensure that findings can be released quickly and keep stakeholder audiences engaged throughout the course of the project.

- **Prioritize evaluation efforts and planning early in the lifecycle of a project.** Projects should develop a logic model and identify shared outcomes early on in order to create a joint vision among all partners (and across all related grants/projects). This will ensure that any proposed evaluation activities are tied to program outcomes. Create a clear evaluation plan and potentially an evaluation toolkit that helps guide evaluation activities, as well as empower the team and increase efficiency. The toolkit can act as a central repository of existing tools, templates, and protocols related to evaluation that are participant-focused and customizable to the communities being served.

- **Conduct additional research to increase knowledge about program impact.** Several grantees noted the intent to measure long-term outcomes and change over time for patients (doing so, however, was generally not possible within the confines of the grant period). Ongoing evaluation activities should include a focus on long-term outcomes and changes over time to inform continuous program improvements and expansion opportunities. Evaluation efforts should increase understanding around best practices; therefore, collecting nuanced information about the model of care and specific services as it relates to outcomes for different groups of clients will provide vital information about which approaches work best and for whom.

Policy recommendations

Changes to policies and practices can support increased access to care for substance use/opioid use disorder patients and greater health care utilization. Several recommendations for local, state, and federal policymakers emerged out of the project, including:

- **Promote policies and practices that support harm reduction models of care**, such as those that reduce barriers to buprenorphine treatment (i.e., "low-threshold" buprenorphine) and those that provide access to and disposal of drug use equipment ("syringe services programs").
  - For further information about this topic, please see these Pew resources:
    "Policies Should Promote Access to Buprenorphine for Opioid Use Disorder"
    "Syringe Distribution Programs May Help Reduce Opioid Overdose Deaths"

- **Use harm reduction-informed destigmatizing language related to substance use**. For example, use person-first language (e.g., "people with OUD"), eliminate the use of words with negative connotations (e.g., getting "clean"), and treat OUD like other medical conditions that can be managed with evidence-based, ongoing treatment.
  - For further information, please see this Pew resource:
    "Why Words Matter in the Substance Use Conversation"

- **Advocate for the use of telemedicine in OUD treatment**. Support can be built by emphasizing the success of at-home buprenorphine initiation under new regulations put in place due to the COVID-19 pandemic.
  - For further information, please see these Pew resources:
    “Telehealth Can Lower Barriers to Buprenorphine Treatment for Opioid Use Disorder”
    “State Policy Changes Could Increase Access to Opioid Treatment via Telehealth”
- **Include individuals with lived experience in Medicaid reform discussions**, incorporating them into decision-making around Medicaid policy proposals.
  - For further information, please see this Pew resource:
    “States Should Measure Opioid Use Disorder Treatment to Improve Outcomes”
- **Increase Medicaid reimbursement rates to support SUD care for patients with complex, co-occurring medical and social conditions**, such as pregnant and parenting persons and individuals with recent incarceration and/or overdose.
  - For related information, please see this Pew resource:
    “Opioid Treatment Programs: A Key Treatment System Component”

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Appendix

A. Descriptions of CORE grantees

Project CARA: Care that Advocates Respect/Resilience/Recovery for All

Project Description. Care that Advocates Respect/Resilience/Recovery for All - Project CARA is a comprehensive perinatal substance use disorder (PSUD) treatment program with the mission to ensure that pregnant and parenting persons affected by substance use disorder (SUD) have easy access to a compassionate multidisciplinary team that utilizes a trauma-informed approach. The program's primary location is at the Mountain Area Health Education Center (MAHEC) OB/GYN in Asheville, North Carolina, with secondary locations throughout western North Carolina (WNC). Project CARA provides medical care, substance use care, and additional support services.

In addition to the clinic services they provide, Project CARA partners with many other program and community services in the region that serve pregnant and postpartum persons with SUDs, both as a way to connect patients to more services and to provide education and integrate resources. Project CARA also collaborates with an advisory council that includes members such as the county Department of Health and Human Services, inpatient treatment programs, methadone clinics, and labor and delivery staff. Additionally, Project CARA has developed educational training modules, a monthly webinar series, and an annual perinatal summit to share lessons learned and educate other providers on evidence-based, non-judgmental care.

Population Served. Project CARA serves pregnant and parenting persons with SUDs throughout WNC. While Project CARA is housed in the urban center of the western counties of the state, it provides services for people that live across the rural mountain setting of WNC. In all, patients came from 27 counties during this study, and only about half came from the urban county where MAHEC is located.

Evaluation Partner. Project CARA partnered with staff and researchers at University of North Carolina Health Sciences at MAHEC – an interdisciplinary collaboration that also includes the University of North Carolina at Chapel Hill and regional community partners.

Evaluation Questions.

1. To what extent does Project CARA improve access to care, improve maternal and infant outcomes, and reduce rates of return to use and overdose?
2. Does Project CARA offer patient-centered care?
3. What is the recommended level of care that perinatal OUD patients desire or require for successful treatment and relapse/overdose prevention?

COVID-Related Evaluation Changes

The Project CARA team would have been able to more directly engage with and recruit patients through person-to-person contact for the entire study had COVID not been a factor. Instead, the majority of recruitment occurred passively (e.g., flyers and advertisements); only a subsample of patients at Project CARA were recruited in person. Additionally, the team notes that they did not fully capture how the pandemic may have impacted the care patients received—that is, they were not able to compare how access to care or quality of care changed for patients before and after the onset of the pandemic.

CARE: Clinic for Acceptance, Recovery, and Empowerment in Pregnancy

Project Description. The Clinic for Acceptance, Recovery, and Empowerment in Pregnancy (CARE) is an outpatient program in St. Louis, Missouri, that offers prenatal care, OUD treatment with buprenorphine[2], and behavioral health and psychiatry support to pregnant and postpartum persons, along with neonatal and postpartum care. CARE is staffed by a multidisciplinary team of obstetric and mental health providers at Washington University Medical Center and Barnes-Jewish Hospital. Women are referred from CARE's community health partners (community clinics and health systems; behavioral health and substance use disorder treatment programs; county corrections medical providers; and drug and alcohol rehabilitation centers); the Barnes-Jewish Hospital obstetrical service; and self-referrals.

Population Served. CARE serves patients from urban St. Louis as well as rural Missouri and southern Illinois. Just over one-third of the CARE patients (37%) are African American women from St. Louis City. More than 90% of CARE patients are covered by Medicaid, and over 95% have a dual diagnosis of OUD and a mental health disorder.

Evaluation Partner. The CARE team at Washington University Medical Center partnered with Brown School Evaluation Center to conduct a mixed methods implementation and outcome evaluation.

Evaluation Questions.

1. How does inducing buprenorphine at home affect the initiation process in pregnant patients?
2. How does the CARE program affect pregnant Black patients?
3. What are the patient and resident physician experiences with the CARE program?

COVID-Related Evaluation Changes

CARE was originally intended to provide both individual CARE services and group CARE services, where a small group of women meet every other week for two hours with an obstetrical nurse practitioner licensed to prescribe buprenorphine and a behavioral health therapist as group co-facilitators. The evaluation planned to compare experiences of patients attending individual CARE to those of patients attending group CARE. However, group CARE was not implemented consistently due to COVID-19 until April 2022, so the comparison was not included among CARE evaluation findings.

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[2] As CARE is not a federally designated Opioid Treatment Program, methadone is not dispensed outpatient at this clinic, but patients who are treated with methadone are seen in CARE for prenatal care and social-psychiatric support, and patients are additionally referred to methadone clinics if treatment with methadone is more appropriate than with buprenorphine.

MTOM: Midwest Tribal Opioid Meta-Evaluation

Project Description. Midwest Tribal Opioid Meta-Evaluation (MTOM) is an initiative that sought to evaluate the cumulative impact of four federal grants (from the U.S. Department of Agriculture National Institute of Food and Agriculture and the Substance Abuse and Mental Health Services Administration) that were awarded to University of Minnesota Extension from 2018 through 2020 to address the rural opioid crisis. Through these grants, University of Minnesota Extension hosted community forums; offered Changemakers leadership training for community members, professionals, and volunteers who are passionate about supporting recovery in their community; and provided education, training, and technical assistance on naloxone, medication assisted treatment (MAT) or medication for opioid use disorder (MOUD), and stigma. Additionally, University of Minnesota Extension's American Indian Resource and Resiliency Team (AIRRT) created and delivered culturally adapted holistic health education.

Grant-funded activities involved partnerships between University of Minnesota Extension and University of Minnesota College of Pharmacy Duluth, and collaboration with Aitkin County Health & Human Services, Itasca County Public Health, Pine County Health & Human Services, and St. Louis County Public Health and Human Services.

Population Served. Grant-funded activities served Mille Lacs Band of Ojibwe and Bois Forte Band of Chippewa. Efforts focused on American Indian individuals in recovery from opioid use disorder.

Evaluation Partner. University of Minnesota Extension partnered with Johns Hopkins Center for Indigenous Health, Great Lakes Hub in Duluth, Minnesota.

Evaluation Questions.

1. Across the two Tribal communities, how do the domains of recovery capital intersect to increase positive recovery capital and decrease opioid use among American Indian individuals seeking substance use recovery services?
    a) Across the Tribal communities, how is recovery capital conceptualized?
    b) What are contributors to recovery capital?
    c) What are the barriers to recovery capital?
2. Has systems change led to an increase in recovery capital at the individual and community levels?
    a) Which systems have improved because of these grant projects?
    b) Have systems sustained change because of these grant projects?
3. Across the funded activities and in consultation with diverse stakeholders, what are the top five best practices for supporting American Indians in successful recovery?
    a) How effective are the specific culturally adapted trainings?
    b) What are the common needs and training requests across the project and Tribal communities?

COVID-Related Evaluation Changes

The COVID-19 pandemic affected nearly all components of the MTOM evaluation. The three primary challenges included: lack of a tribal resolution offering explicit consent for research with one of the Minnesota Tribal nations served by the UMN opioid grants, community partner burnout and staff turnover, and study team turnover.

OBC: Olympia Bupe Clinic

Project Description. Olympia Bupe Clinic (OBC) provides low-barrier buprenorphine treatment for opioid use disorder (OUD) among high-need individuals, closely integrated with peer recovery support services. OBC is a walk-in clinic that provides same-day prescriptions for buprenorphine, dispensed on-site. Treatment is based on principles of harm reduction, with the understanding that buprenorphine is a life-saving medication that should be made available with the least possible requirements.

OBC is a program within Capital Recovery Center (CRC), a nonprofit community mental health agency established in 1987 in Olympia, Washington. CRC provides peer counseling and groups, homeless outreach, and supportive employment services, and houses the only syringe services program in Thurston County.

Population Served. OBC is located in Olympia and serves a mix of urban and rural areas. OBC attracts individuals who experience challenges attempting to access medical and social services. The majority of OBC patients have used illicit heroin or fentanyl; methamphetamine use is common, and most have co-occurring behavioral health conditions. The clinic prioritizes patients at highest risk of morbidity and mortality from opioid use disorder, such as pregnant and parenting persons, individuals with recent incarceration and/or overdose, and those with complex medical and behavioral health conditions.

Evaluation Partners. OBC's evaluation partner for the quantitative component of the analysis was the University of Washington Addictions, Drug, and Alcohol Institute. Their partner for the qualitative component was Teresa Winstead, Ph.D., Associate Professor of Anthropology and Sociology at Saint Martin's University.

Evaluation Questions.

1. Do participants self-report better mental health, physical health, and quality of life three months after initiating care compared to the time of enrollment?
2. Do participants self-report decreased illicit opioid and other substance use three months after initiating care compared to at the time of enrolment?
3. What does a patient-informed view of the processes and practices of the OBC medications for opioid use disorder (MOUD) model look like?
    a) How well do OBC clinic services address patients' needs?
    b) How well do staff implement patient support practices?
    c) How do OBC clinic services compare with practices at traditional buprenorphine clinics?
    d) How do patients understand their own treatment and recovery pathways both connected to and separate from clinic encounters and services?

COVID-Related Evaluation Changes

Because of COVID-19, the OBC evaluation had limited access to administrative data from the State, since pandemic-related demands on Washington State staff prevented them from providing any requested data except prescription data from the Prescription Monitoring Program. In particular, the evaluation was unable to access data to answer the research questions of: (1) Do participants have lower rates of emergency health care utilization and hospitalization compared to prior to program enrollment? and (2) Do participants have lower rates of arrest compared to prior to program enrollment?

RACHHS: Rio Arriba County Health and Human Services Department

Project Description. Rio Arriba County Health and Human Services Department (RACHHS) provides substance use disorder (SUD) case management and social support services. RACHHS is the anchor agency for community health services in Rio Arriba County, New Mexico, and was established in 1997 to respond to Rio Arriba's SUD crisis. RACHHS has used the Pathways Care Coordination model—an outcomes-based chronic disease case management service delivery model—for over a decade, having adapted it to SUD and the local community context. Using this model, RACHHS provides care coordination of wraparound services that address issues like housing, employment, and basic needs, with treatment services to mitigate social factors that challenge SUD management.

Clients are referred to RACHHS through several mechanisms. One source of referrals to the Pathways program is ReRoute/Law Enforcement Assisted Diversion (LEAD). Participating law enforcement has the option to divert individuals with SUD from being arrested by referring them to LEAD case managers. Eligibility is at the officer's discretion and is limited to low-level and nonviolent offenders. A second source of referral is Peer Probation funded by a Rural Responses to the Opioid Epidemic grant. Housed in the district court, the program includes court support and oversight, with wraparound services provided by a dedicated Community Peer Support Worker (CPSW). Clients who do not enter RACHHS through ReRoute or Peer Probation are processed as community referrals, which primarily draw upon Medicaid for funding. All clients receive RACHHS Pathways services but are required to complete a psycho-social assessment after four encounters to inform a treatment plan developed with a clinician, care coordinator, and the client.

Population Served. RACHHS serves individuals experiencing SUD in Rio Arriba County, New Mexico, a population that is primarily white Hispanic.

Evaluation Partners. RACHHS has partnered with i2i Institute for evaluation services, both prior to and as part of the Pew CORE grant. I2i has worked with multiple RACHHS initiatives since 2006, collecting Pathways outcomes data for over a decade.

Evaluation Questions.

1. How does an expanded harm reduction approach differ (both in terms of implementation and outcomes) from the Medicaid "Treat First" model?
2. How does expanded harm reduction affect participants' experiences receiving services compared to the Medicaid "Treat First" model?
3. How does the expanded harm reduction approach affect participants' overall well-being?
4. How does our expanded harm reduction approach compare with traditional views of harm reduction? How does it align with harm reduction principles? How, if at all, does this differ from the Medicaid "Treat First" model?

COVID-Related Evaluation Changes

The original RACHHS evaluation became impossible to complete due to staff turnover and loss of staff time related to COVID-19 exposure and illness, radical changes in practice given COVID restrictions, and a new and ultimately ineffective electronic health record system implemented to meet Medicaid billing requirements. Because profound changes continued during this evaluation study, it was more developmental than formative in the evaluative approach.

REACH: Respectful, Equitable, Access to Compassionate Healthcare

Project Description. The Reach Project, Inc., is a nonprofit organization which works with and for individuals who typically face stigma in health care settings. The project of focus for this grant is Respectful, Equitable, Access to Compassionate Healthcare (REACH) Medical. REACH Medical has provided innovative care in the Ithaca, New York, area for people with opioid use disorder and other medically-underserved individuals in a low-threshold, stigma-free environment since opening in February 2018. In addition to providing medication for opioid use disorder (MOUD), REACH offers integrated medical and behavioral health services in a welcoming environment. The clinic uses a chronic disease management model of care, in which a medical provider prescribes MOUD, and conducts follow-up visits, while a community health worker and social workers provide additional case management and referral services.

Population Served. REACH Medical serves people who use drugs, people experiencing homelessness, and other medically underserved populations that may experience stigma in traditional health care settings. They serve 55 counties in New York state, with a particular focus on the area surrounding Ithaca, New York, where in-person services are provided.

Evaluation Partner. REACH Medical partnered with researchers from Weill Cornell Medical College for a rigorous evaluation of their services.

Evaluation Questions.

1. Does REACH improve access and retain and engage patients in MOUD, primary care, and behavior health services?
2. Is the experience of health care stigma reduced for patients using REACH?
3. Does REACH develop and retain a highly satisfied mission-driven health care workforce trained in a harm reduction approach to health care?
4. How does the use of telemedicine impact REACH patient engagement and retention in care?
5. Does REACH engage and retain patients in outreach services?
6. How does engagement with REACH outreach services impact the patient population served?

COVID-Related Evaluation Changes

COVID-19 impacted the REACH evaluation by delaying the implementation of a second time point in the evaluation (such that only baseline data were collected), and by delaying the administration of a patient satisfaction survey. In addition, qualitative patient interview guides were revised to include questions about how the pandemic affected the patient's daily life and access to care, their satisfaction with telemedicine appointments, and their perceptions around receiving the COVID-19 vaccination.

B. Data collection methodology

B1. Data collection methods utilized by CORE grantees

Grantee	Method	Purpose	N
Project CARA	General survey	To describe the prenatal experience of individuals in western North Carolina who use opioids, comparing those who received care at Project CARA vs. those who did not	61 individuals
	Postpartum survey	To describe the demographics of, and the full prenatal and postpartum experience of individuals who received care at Project CARA vs. those who did not	32 individuals
	Prenatal and postpartum semi-structured interviews	To learn about CARA participants' experiences seeking and engaging with perinatal health care services and providers, as well as substance use treatment	13 individuals, 15 interviews (2 completed both prenatal and postpartum)
	Electronic medical record (EMR) analysis	To determine the impact that receiving most of one's care (i.e., "full care") within project CARA had on health care utilization and outcomes	512 records
	Chart audit	To determine the patient-centeredness of care	300 notes across 190 records
CARE	Electronic medical record (EMR) Analysis	To determine how inducing buprenorphine at home affects the induction process in pregnant patients vs. observed outpatient induction	55 records
	Patient experience survey (offered both prenatal and postpartum)	To assess patients' change in knowledge about obstetrics and recovery from their OUD, their confidence in recovery, their access to services, and their trust and satisfaction with CARE	33 patients, with 28 prenatal and 15 postpartum (10 completed both)
	Resident physician surveys	To compare the attitudes, self-perceived preparedness, and current prescribing practices of recently graduated obstetricians and gynecologists who were exposed to an OUD-specific prenatal clinic during residency vs. those who were not exposed during residency	55 individuals
	Individual CARE interviews	To understand the experiences of patients attending CARE, understand the benefits and barriers to participating in CARE programs, and understand the patients' trusted information sources and messengers regarding medical/opioid treatment information, pregnancy information, and trust in the medical system	24 individuals

B1. Data collection methods utilized by CORE grantees (continued)

Grantee	Method	Purpose	N
MTOM	Literature review	To examine conceptual frameworks for community capacity building and Indigenous harm reduction	N/A
	Secondary data analysis of participant satisfaction surveys	To evaluate satisfaction with, relevance to their lives and careers, and future application of each training, workshop, or other program activity	1,741
	Secondary data analysis of results from community forums	To assess community needs and identify sources of recovery capital	6 forums, 343 attendees
	Secondary data analysis of results from interviews		60 stakeholders
	Qualitative interviews with project staff	To assess partnership development, sustainability, perceived impact/ effectiveness, and best practices for implementing community-driven opioid programming in rural counties with Tribal communities	19
	Group Model Building	To engage community members in identifying key variables related to substance use recovery, as well as feedback loops as to how those variables are related to local systems	2 days, 12 participants
OBC	Baseline survey with new patients	To examine the experiences of new patients and assess changes in quality of life, physical and mental health, housing, employment, illicit substance use, and MOUD utilization	111
	3-month follow-up survey with new patients	To examine the experiences of new patients and assess changes in quality of life, physical and mental health, housing, employment, illicit substance use, and MOUD utilization	70
	Interviews with established patients	Semi-structured interviews explored patients' treatment initiation and their goals, expectations, or concerns when they started treatment	35
	Interviews with project staff	Semi-structured interviews explored staff perspectives on important and impactful elements of clinic model	10
	Focus groups with established patients	Gather participant perspectives on their own treatment and recovery, with particular attention to how participants describe treatment and recovery in an imagined world without barriers	13 participants in 2 groups
	Focus groups with staff	To gather staff perceptions of the clinic model of care, including how staff understand the most important elements of the clinic model	15 participants in 2 groups
	Literature review	To identify prevalence, need, and best practices for low-barrier MOUD and gaps this project can begin to address	N/A

B1. Data collection methods utilized CORE grantees (continued)

Grantee	Method	Purpose	N
RACHHS	Document review		N/A
	Literature review	To examine best practices in harm reduction	N/A
	Data, Assessment, and Planning (DAP) notes (care coordination documentation)	To identify the client needs, pathways (e.g., needing dental work would align with the medical and dental pathway), barriers to completing a pathway, services provided, progress made, and outcomes attained	90 clients; 456 DAP notes
	Focus groups with care coordinators and clinical staff	To assess understanding of harm reduction and expanded harm reduction, care coordination practice, perceptions in the community related to caring for people with SUD, experiences working with community partners and the effect of stigma on access, availability, and quality of care	2 groups; 10 participants
	Key informant interviews with partners, leadership, providers		21
	Client interviews	To assess client experiences with care coordination, successes, what they valued about the experience, and recommendations/wishes	9
REACH	MOUD patient intake assessment	To track patient characteristics and needs, as well as outcomes and outputs over time	789
	MOUD patient satisfaction survey	To assess patient satisfaction with the services provided by REACH Medical	181
	MOUD patient qualitative interview	To assess patients' overall satisfaction with REACH and their health care access and utilization outside of REACH	35
	Patient-facing staff satisfaction survey	To measure patient-facing staff satisfaction and suggestions for workplace improvements	33
	Literature review	To identify best practices for low-threshold care provided to people who use drugs and other traditionally stigmatized populations and gaps that the REACH Medical project and evaluation can fill	N/A
	Analysis of electronic health record data	To track outreach and service engagement efforts	

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