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Assessing Sustainability of State-Led Action Plans for the Opioid Use Disorder, Maternal Outcomes, and Neonatal Abstinence Syndrome Initiative Learning Community, 2018–2021

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Abstract

Objective(s): The opioid crisis affects the health and health care of pregnant and postpartum people and infants prenatally exposed to substances. A Learning Community (LC) among 15 states was implemented to improve services for these populations. States drafted action plans with goals, strategies, and activities.

Materials and Methods: Qualitative data from action plans were analyzed to assess how reported activities aligned with focus areas each year. Year 2 focus areas were compared with year 1 to identify shifts or expansion of activities. States self-assessed progress at the LC closing meeting, reported goal completion, barriers and facilitators affecting goal completion, and sustainment strategies.

Results: In year 2, many states included activities focused on access to and coordination of quality services (13 of 15 states) and provider awareness and training (11 of 15). Among 12 states participating in both years of the LC, 11 expanded activities to include at least one additional focus area, adding activities in financing and coverage of services ($n = 6$); consumer awareness and education ($n = 5$); or ethical, legal, and social considerations ($n = 4$). Of the 39 goals developed by states, 54% were completed, and of those not completed, 94% had ongoing activities. Barriers to goal completion included competing priorities and pandemic-related constraints, whereas

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facilitators involving use of the LC as a forum for information-sharing and leadership-supported goal completion. Sustainability strategies were continued provider training and partnership with Perinatal Quality Collaboratives.

Conclusion: State LC participation supported sustainment of activities to improve health and health care for pregnant and postpartum people with opioid use disorder and infants prenatally exposed to substances.

Keywords

opioid crisis; opioid use disorder; opioid addiction; medications for opioid use disorder; medication-assisted treatment; pregnancy; postpartum; learning community

Introduction

Opioid use disorder (OUD) among pregnant and postpartum persons affects the health of both mother and infant.[1] Clinical guidance includes screening with validated tools[2] and medication-assisted treatments or medications for opioid use disorder (MOUD) recommended during pregnancy and postpartum.[2–7] From 2010 to 2017, maternal opioid-related diagnoses increased from 3.5 to 8.2 per 1000 delivery hospitalizations.[8]

Similarly, among infants diagnosed with Neonatal Abstinence Syndrome (NAS) for the same time frame, the NAS rate increased from 3.0 to 7.3 per 1000 birth hospitalizations.[8] Long-term clinical monitoring and treatment of pregnant and postpartum persons with OUD can decrease the rate of overdose and improve infant outcomes.[9] However, sociodemographic and economic barriers to accessing quality care can exist in many states.[10–12]

To assist states in building public health capacity to address the opioid crisis among pregnant and postpartum people, the Association of State and Territorial Health Officials (ASTHO), in collaboration with the Centers for Disease Control and Prevention (CDC), launched the Opioid Use Disorder, Maternal Outcomes, and Neonatal Abstinence Syndrome Initiative Learning Community (referred to as the OMNI LC) from 2018 to 2021, engaging 12 states in 2018 (year 1) and an additional 3 states in 2019 (year 2; Fig. 1).[13,14]

States developed multidisciplinary teams consisting of a minimum of five members, including the State Health Official or designee; Medicaid Medical Director; Behavioral, Mental Health or Alcohol and Drug Abuse Director; Title V Maternal and Child Health Director; a clinical champion; and other state public health or clinical staffs as needed. The OMNI LC supported state team planning in five focus areas: access to and coordination of quality services; provider awareness and training; data, monitoring, and evaluation; financing and coverage; and ethical, legal, and social considerations.[12]

In addition to CDC and ASTHO, other federal partnering agencies and national membership and clinical organizations provided support to state teams during the OMNI LC. Other federal agencies included the Centers for Medicare and Medicaid Services, Health Resources and Services Administration, Substance Abuse and Mental Health Services Administration, and Administration for Children and Families; national organizations

consisted of the Association of Maternal and Child Health Programs and National Association of State Alcohol and Drug Abuse Directors; and participating clinical membership organizations were the American Academy of Pediatrics, and American College of Obstetricians and Gynecologists (ACOG).

The multidisciplinary state teams participated in three convenings to consult with subject matter experts, federal partners, and national organizations; listen to lived experiences of individuals recovering from OUD; participate in peer-to-peer sharing; develop and refine state action plans; and assess annual progress on team goals.

The year 1 (October 2018–July 2019) OMNI LC in-person convening in October 2018 focused on the initial development of state action plans. Most of the 12 state teams identified goals and strategies to increase access to and coordination of quality services or improve provider awareness and training, designated as priority focus areas.[13] In year 2 (August 2019–July 2021), 14 out of the 15 state teams attended the second in-person convening of the OMNI LC in August 2019. Through the action-planning process, states identified consumer awareness as a new focus area. One state team (the 15th state team) met separately with ASTHO in October 2019 for a similar planning session.

The 12 state teams that participated in year 1 revised existing action plans by removing completed goals and strategies or adding new goals and strategies in one or more focus areas, and the three new state teams developed action plans to include goals, strategies, and activities within state-identified focus areas. In August 2021, 13 out of the 15 states attended a virtual closing meeting where teams presented OMNI LC successes and achievements, and shared sustainability plans for year 2 goals.

One state from year 1 and one state from year 2 were unable to participate in the closing meeting or provide information post-meeting to ASTHO due to competing issues or co-occurring meeting date conflicts. The participating 13 state teams provided information during the virtual meeting on barriers and facilitators affecting goal completion during the project period. Finally, each participating team forecasted sustainment strategies for state goals 1 to 5 years post-OMNI LC.

The purpose of this summary is to highlight how state teams shifted goals and areas of focus from year 1 to 2 of the OMNI LC, summarize the number of goals completed during year 2, identify barriers and facilitators affecting year 2 goal achievement, and report state team self-assessment of strategies to sustain goals 1 to 5 years following the close of the LC.

Materials and Methods

For this descriptive study, authors qualitatively analyzed information from year 1 and 2 state action plans and developed questions to assess state team goal completion, including ongoing activities. Study authors focused on how state goals shifted over the course of the OMNI LC and evaluated goal completion by having states self-assess goal achievement at the close of LC, on-going activities for each goal, barriers and facilitators affecting goal completion, and strategies for goal sustainment over the next 1 to 5 years following the close

of the LC. The assessment consisted of state-reported goal sustainment efforts, defined as an implementation outcome measure of sustainability, described by Proctor.[15]

To assess shifts in goals, study authors (M.E.R. and C.D.K.) independently extracted goal, strategy, and activity information from year 1 action plans and then coded extracted information by areas of focus described elsewhere.[12,14] The authors then independently abstracted the same information from year 2 action plans and coded all information by focus area using OMNI LC focus area definitions. Next, the same authors independently validated coding using the same focus area definitions. Discrepancies in coding were discussed until consensus was reached. Focus areas were categorized for all state teams; then, year 1 focus areas were compared with year 2 to identify sustained, expanded, or shifted capacity-building efforts of state teams.

During the closing virtual convening, assigned facilitators guided the 13 participating state teams through the closing assessment and recorded responses using the REDCap online information assessment tool.[16] The assessment required state teams to group action plan goals into two categories: complete and not complete. Within each category, states self-reported barriers and facilitators affecting goal completion, whether activities for each goal were or were not ongoing, and whether activities for each goal would or would not be sustained 1 to 5 years beyond the end of the OMNI LC. States described sustainment strategies for all goals where activities were identified as ongoing regardless of completion status.

Once recorded, state data were de-identified. Study authors aggregated the total number of state-developed goals by self-assessed completion status (completed or not completed) and the status of ongoing activities (ongoing activities or no on-going activities). Next, study authors performed a content analysis and aggregated state-identified barriers and facilitators from the assessment. Two authors (K.L.E. and M.L.) independently reviewed the assessment excerpts, applied initial codes, performed inductive coding, and reconciled differences.

Ten percent of the codes were validated by an independent, third study author (C.D.K.) and discrepancies were resolved by consensus. Lastly, to determine sustainment efforts, content analysis was performed on excerpts describing state team plans for sustainment of goals 1 to 5 years post-OMNI LC participation. Sustainability information was aggregated and summarized by authors (K.E.L. and M.L.) and reviewed by an independent, third study author (C.D.K.). The CDC determined that human subjects review by an Institutional Review Board was not necessary, as this study was considered public health practice.

Results

In year 2, goals were developed for all focus areas (Table 1). Most state teams included goals, strategies, or activities for increasing access to and coordination of quality services (13 of 15 states); provider awareness and training (11 of 15 states); and financing and coverage (10 of 15 states; Table 2). Almost half of the state teams included activities on data monitoring and evaluation (7 of 15); ethical, legal, and social considerations (7 of 15); or consumer awareness (7 of 15).

Among the state teams participating in both years, year 2 action plans most often included efforts to increase access to and coordination of quality services (10 of 12), financing and coverage (9 of 12), and provider awareness and training (8 of 12; Table 2). Most state teams (11 of 12) added one or more focus areas in year 2 action plans, with state teams developing new activities on financing and coverage (6 of 12), consumer awareness (5 of 12), ethical, legal, and social considerations (4 of 12), and data monitoring and evaluation (3 of 12; Fig. 2).

All state teams sustained efforts in at least one year 1 focus area, and a few state teams shifted or reduced activities in a focus area (3 of 12). All three newly participating state teams in year 2 identified activities to increase access to and coordination of quality services and provider awareness and training (Table 2).

Of the 39 goals identified by the 13 state teams participating in the OMNI LC virtual closing meeting, 21 goals (54%; 21 of 39 goals) were reported as completed and of that number, 15 goals (71%; 15 of 21) had ongoing, related activities (Table 3). The remaining 18 goals (46%; 18 of 39) were reported as not completed and, except for 1 goal, included ongoing activities (94%; 17 of 18).

State teams identified barriers and facilitators to goal achievement during the final year of the OMNI LC (Table 4). Most state teams (11 of 13) identified competing priorities as a barrier to completing goals, referencing multiple priorities contributing to a lack of motivation to participate in the OMNI LC and pandemic-related capacity challenges such as staffing shortages and reassignments, travel restrictions, and shifts to virtual meetings.

A smaller group of states (3 of 13) identified state-level barriers, including lack of education and awareness of OUD among pregnant persons or long approval processes for systems-level changes as impeding goal completion. Other states (3 out of 13) identified resource availability as a barrier and referenced a lack of activities focused on awareness of and access to OUD services among pregnant and postpartum people.

By comparison, many state teams identified partner collaboration (8 of 13) as a facilitator to completing goals acknowledging the OMNI LC as a forum for improved communication and broad dissemination of information among state leadership and state agencies to support systems-level change, increased staffing, and technical assistance. Some state teams (3 of 13) identified state-level leaders as garnering support for substance use treatment programming, with other states (3 of 13) highlighting resource utility such as receipt of external support for activities and adaptation of existing resource information, materials, and tools for rapid implementation and use.

To sustain efforts 1 to 5 years beyond the OMNI LC, state teams (9 of 13) focused on strategies offering ongoing provider training on screening, best clinical practices, trauma-informed care, and family-based services for pregnant and postpartum people with OUD (Table 5).

A similar number of states (8 out of 13) identified maintaining the work of the OMNI LC through partnerships, aligning of agency and community efforts, and support of state

leadership as sustainable activities. Many states (8 of 13) highlighted partnering with a Perinatal Quality Collaborative (PQC) to expand access to services, and other states (7 of 13) reported implementing state task forces or strategic plans to continue work. Fewer states (4 of 13) highlighted collaborating with other states to obtain examples and information materials or adopting plans of safe care, screening tools, and patient safety bundles. A few states (3 of 13) identified improving data collection and evaluation as sustainable activities.

Discussion

Overall, OMNI LC state teams completed 54% of year 2 goals. Nearly all goals that were not completed by the close of the OMNI LC (94%) included ongoing activities. Most state teams not only added focus areas in year 2 of the OMNI LC but also maintained work in year 1 focus areas. Consistent with year 1, most state teams participating in year 2 included activities on access to and coordination of quality services and provider awareness and training.[13]

Compared with year 1, more state teams included activities focused on financing and coverage; ethical, legal, and social considerations; and data, monitoring, and evaluation in year 2. Almost half of all state teams added activities to improve consumer awareness, the new state-identified focus area identified in year 2. State-identified barriers such as competing priorities, pandemic-related delays, state-level barriers, and lack of resources affected goal completion and sustainment of activities.

Facilitators of goal completion included the OMNI LC as a catalyst for moving work forward, leadership support, and use of existing resources from other states. Finally, state teams self-assessed sustainment of activities beyond the OMNI LC and highlighted provider training, ongoing partnerships including collaboration with PQCs, and improvements in data collection and evaluation as next steps for sustaining focus on pregnant and postpartum people with OUD and infants prenatally exposed to substances.

These results highlight the role of state participation in the OMNI LC to support sustainable progress on strategies that improve health and health care for pregnant and postpartum people with OUD and infants prenatally exposed to substances, including those with NAS.

Sustainability is defined as the routine maintenance, continuation, or integration in implementation of an activity, is often assessed at the organizational level, and offers insight into whether activities continue beyond a set time frame.[14] Year 2 of the OMNI LC provided state teams the opportunity to shift focus and develop goals that could be institutionalized beyond the timeframe of the LC.

Most state teams included financing and coverage activities in year 2 to complement access to and coordination of services and provider awareness and training, providing opportunity to implement systems changes by addressing financial barriers to service provision. Access to services can be affected by statutes prohibiting substance use during pregnancy[17]; however, including treatment services for MOUD under expanded Medicaid can improve connections to outpatient care and increase treatment utilization.[18,19]

Following the close of the OMNI LC, to address gaps in access to services, states were given the option to extend pregnancy-related Medicaid eligibility up to 1 year postpartum.[20] Medicaid expansion can provide continuous enrollment and consistent coverage for health care services in the year postpartum,[21] including access to services for OUD.[22] To facilitate systems-level change and access to substance use treatment services, OMNI LC states increased goals that focused on coverage and leveraged state leadership support.

As state teams shifted the focus to goal sustainment in year 2 of the OMNI LC, more included activities addressed ethical, legal, and social considerations than in year 1. Structural social and economic conditions have influenced how the opioid crisis impacts certain communities or populations.[23] Culturally appropriate public health interventions tailored to a community or population might decrease morbidity and mortality from opioid use.[24]

Trauma-informed and gender-specific substance use integrated treatment services and social supports incorporating needs of pregnant and postpartum people with OUD, such as childcare, child and parenting support services, or stigma and discrimination, can improve treatment retention, health, and well-being of families affected by substance use.[25,26]

Patient outreach and provider education are critical to improving awareness and addressing misconceptions of treatment or services for pregnant or postpartum people with OUD, including recognition of patient autonomy in treatment decisions,[27] perceptions of harm to the newborn when MOUD is received during pregnancy,[27,28] custody concerns for newborn opioid exposure,[27–30] and inflexible treatment environments for postpartum people.[27,31]

State teams recognized gaps and identified goals to inform the public on OUD treatment and services, including collaborating with child welfare agencies, offering provider training, and raising community awareness of support services for pregnant and postpartum people with OUD.

State teams described barriers and facilitators to goal completion, which can affect sustainability of activities. Many state teams identified the COVID-19 pandemic as a barrier to sustainment of OMNI LC goals. Though systems were disrupted throughout the pandemic, research suggests that innovative telemedicine care and at-home monitoring programs provided promising strategies for continued access to services among pregnant people with OUD.[32]

To further address resource gaps resulting from the pandemic, state teams leveraged partnerships with other state and local organizations or agencies. OMNI LC state teams identified engagement with health centers and safety-net providers as a barrier, though necessary for provision of services to pregnant and postpartum people and infants—ASTHO responded by engaging Primary Care Associations (PCAs),[33] and representatives from state PCAs joined state teams during year 2.

To further assist sustainment of local public health capacity and partnership, ASTHO offered temporary staffing resources through field placements and technical assistance as an approach to build partnerships at the local level within five states. An assessment indicated

that the resource strategy was effective in strengthening collaboration between local and state public health programs and could be scaled up for other emerging issues similar to the opioid crisis.[34]

Most state teams identified strategies for sustaining activities beyond the close of the OMNI LC for both completed and not completed goals. Collaboration to leverage existing resources to support continued provider trainings and clinical improvements through existing partnerships such as PQCs were identified by many state teams. PQCs, or networks of providers working to improve the quality of care for mothers and infants,[35] provide a forum for implementing initiatives to identify best clinical practices through rapid-cycle quality improvement.

The PQCs offer partnerships among hospitals, outpatient clinics, and communities to disseminate resources for increased access to services.[1] Many PQCs have focused on initiatives to address OUD, by implementation of screening, brief intervention, and referral to treatment while supporting the mother-infant dyad and promoting coordinated care post-discharge for both the mother and baby.[36]

The PQCs have also implemented patient safety bundles to develop evidence-based screening and treatment protocols for pregnant and postpartum people with substance use disorder and promote respectful care.[37] In addition, PQCs have partnered with clinical membership organizations, such as ACOG and the American Society of Addiction Medicine,[38] to offer training resources to providers based on current clinical guidelines.[2,3]

The findings in this article are subject to some limitations. First, state action plans do not include explicit information on reasons for change between year 1 and 2 activities of the OMNI LC and might not include all state activities that address the opioid crisis (*e.g.*, a state action plan might not provide details on program-specific activities occurring at regional or local levels).

Second, action plans varied in level of detail, requiring some interpretation, though over-interpretation was limited due to the qualitative analysis protocol, which included consensus-based qualitative methods. Goal reporting, barrier and facilitator assessment, and sustainment were all self-reported by state teams and could have changed post-OMNI LC or goals and activities may have ended due to competing state priorities. Finally, the findings of the analysis from 15 states are not generalizable to all states; however, findings might inform other states planning opioid crisis response activities for pregnant and postpartum people with OUD and their infants.

Conclusion

The complexity of the opioid crisis highlights opportunities to improve state public health capacity in programs and services for pregnant and postpartum people with OUD. The OMNI LC provided a model for action planning that enabled states to expand capacity-building efforts for systems change, such as increased access to services, provision of provider training, recognition of social, legal, and ethical concerns, and collaboration with PQCs to ensure equitable access to services. The OMNI LC state action planning resulted in

sustainable, ongoing activities to address the needs of pregnant and postpartum people and infants affected by the opioid crisis to improve health outcomes and save lives.

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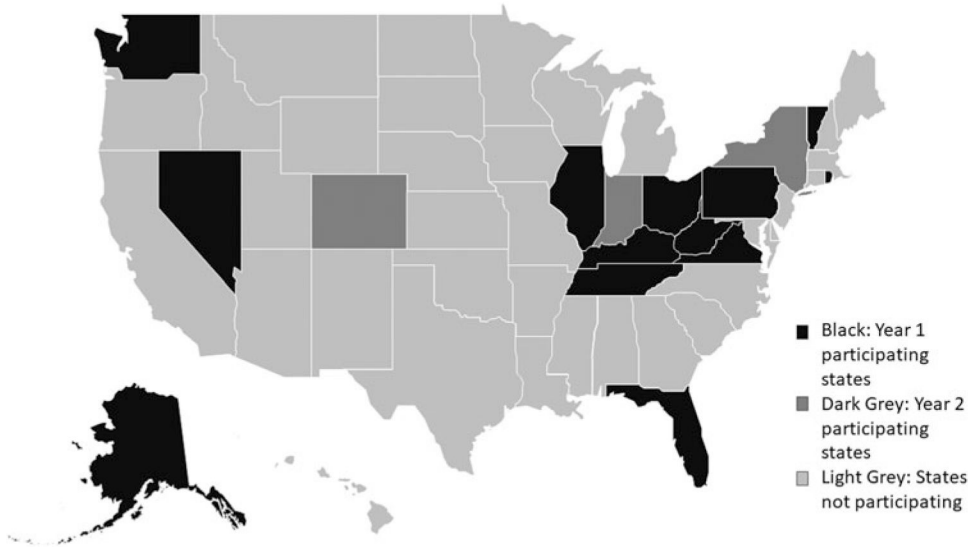

FIG. 1.

Map of the 15 states participating in year 1 and 2 of the Opioid Use Disorder, Maternal Outcomes, and Neonatal Abstinence Syndrome Initiative Learning Community, 2018–2021. States participating in both year 1 and 2 of the Learning Community are indicated by *black shading*, and states participating in only year 2 of the Learning Community are indicated by *dark grey shading*. States not participating in the Learning Community are indicated by *light grey shading*.

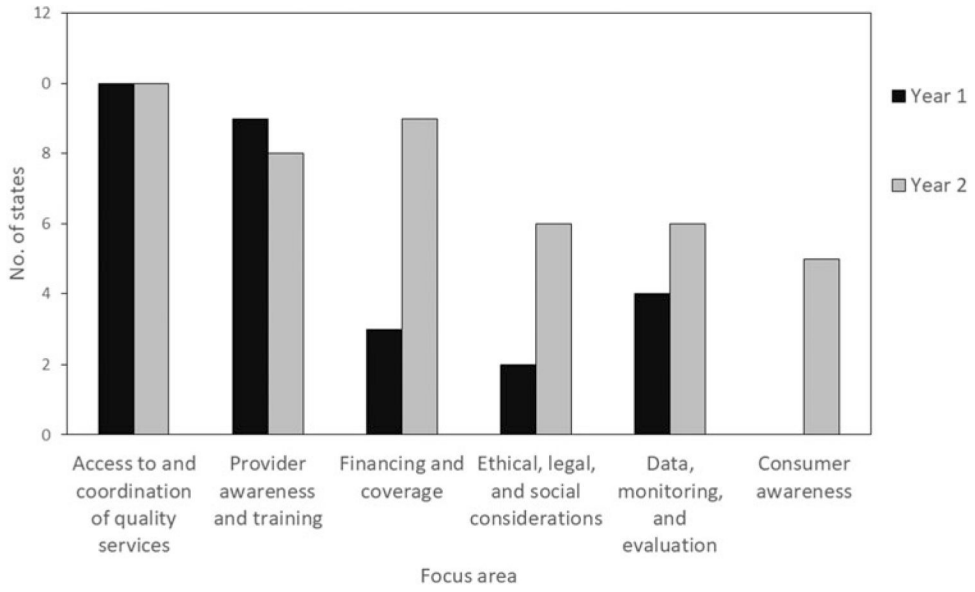

FIG. 2.

Comparison of year 1 and 2 focus areas for state activities addressing opioid use disorder among pregnant and postpartum people and infant prenatally exposed to substances—12 states, Opioid Use Disorder, Maternal Outcomes, and Neonatal Abstinence Syndrome Initiative Learning Community, 2018 and 2019. States working in each specific focus area during year 1 are colored in *black*. States working in each specific focus area during year 2 are colored in *light grey*. Consumer awareness was added as a state-identified focus area for year 2; therefore, no state was identified as working in consumer awareness during year 1. The states represented in Figure 1 are Alaska, Florida, Illinois, Kentucky, Nevada, Ohio, Pennsylvania, Rhode Island, Tennessee, Vermont, Washington, West Virginia.

Table 1.

Focus Area Definitions and Examples of State Goals Addressing Opioid Use Disorder Among Pregnant, and Postpartum Persons and Prenatal Substance Exposure of Infants–Opioid Use Disorder, Maternal Outcomes, and Neonatal Abstinence Syndrome Initiative Learning Community, 2021

Focus area	Definition[a]	Examples of state goals
Access to and coordination of quality services	Assessment of eligibility and availability of services to aid in treatment, referral, or recovery efforts (*e.g.*, mental health services, childcare, and transportation services), coordination of quality care, and integration of ancillary services	Develop, pilot, and evaluate tools for screening, referral, treatment, and plans of safe care for pregnant and postpartum people with OUD and infants with NAS/NOWS Increase access to treatment for pregnant and postpartum people with OUD by addressing policy barriers to prescribing buprenorphine, and increasing the number of providers actively prescribing MAT/MOUD
Provider awareness and training	Guidance, training, and education for providers on treatment protocols and guidelines to standardize care, screen and refer for treatment, and increase familiarity with additional clinical or social service resources and relevant state-specific laws and policies (e.g., plans of safe care)	Train clinical providers on the social determinants of health and maternal OUD to encourage universal screening, and to decrease bias, stigma, and discrimination in identification and treatment of OUD Increase the awareness and utilization of validated screening tools to identify OUD in prenatal settings Adopt universal protocols for identifying and screening infants for NAS/NOWS in birthing hospitals
Financing and coverage	Medical coverage, reimbursement, and billing strategies for treatment of OUD during and after pregnancy, for prevention efforts, and to sustain long-term care provision	Determine Medicaid reimbursement policies and procedures to expand care coverage and access to clinical services up to 12 months postpartum
Ethical, legal, and social considerations	Programs, policies, or policy amendments to address social stigma and legal considerations (*e.g.*, mandatory reporting) that affect uptake, access to, and provision of clinical, substance use, and mental health services	Collaborate with clinical providers, health agencies, and child welfare agencies to understand the process for notification of child protective services and/or law enforcement
Data, monitoring, and evaluation	Monitoring the burden of substance use or misuse through analysis of surveillance data, evaluation of programs, and policy or quality improvement initiatives	Collect data on available trainings, resources, and tools; identify measurable strategies; and evaluate best practices for improving coordination of care for OUD among pregnant and postpartum women
Consumer awareness	Increasing awareness among consumers that OUD is a treatable chronic health condition through education and outreach directed to pregnant, postpartum, and parenting persons with OUD, caretakers and families, community organizations, and the general public.	Increase family and community awareness of resources and support services related to treatment and recovery of OUD

[a] Year 1 focus areas were previously defined in Kroelinger et al.[14]

OUD, opioid use disorder; MAT, medication-assisted treatment; MOUD, medications for opioid use disorder; NAS, Neonatal Abstinence Syndrome; NOWS, Neonatal Opioid Withdrawal Syndrome.

Table 2.

Comparison of Focus Areas for State Activities in Year 1 and 2 Addressing Opioid Use Disorder Among Pregnant and Postpartum People and Infants Prenatally Exposed to Substances—15 States, Opioid Use Disorder, Maternal Outcomes, and Neonatal Abstinence Syndrome Initiative Learning Community, 2018–2021

	Focus area											
	Access to and coordination of quality services		*Provider awareness and training*		*Financing and coverage*		*Ethical, legal, and social considerations*		*Data, monitoring, and evaluation*		*Consumer awareness* [a]	
State (N = 15)	***Year 1*** [b]	***Year 2***	***Year 1***	***Year 2***	***Year 1***	***Year 2***	***Year 1***	***Year 2***	***Year 1***	***Year 2***	***Year 1***	***Year 2***
Participated year 1 and 2 (n = 12)												
Alaska	Yes	Yes	Yes	Yes	__[c]	Yes	—	—	Yes	Yes	—	—
Florida	Yes	Yes	—	Yes	Yes	Yes	—	Yes	—	Yes	—	—
Illinois	—	—	Yes	Yes	—	Yes	Yes	Yes	—	—	—	Yes
Kentucky	Yes	Yes	Yes	Yes	—	—	—	Yes	—	Yes	—	Yes
Nevada	Yes	Yes	Yes	Yes	—	Yes	—	—	—	Yes	—	Yes
Ohio	Yes	Yes	Yes	—	—	—	—	—	—	—	—	—
Pennsylvania	Yes	Yes	Yes	Yes	—	Yes	—	—	Yes	Yes	—	Yes
Rhode Island	—	Yes	Yes	Yes	—	—	Yes	Yes	—	—	—	—
Tennessee	Yes	Yes	—	—	Yes	Yes	—	—	—	—	—	Yes
Vermont	Yes	Yes	Yes	—	—	Yes	—	—	Yes	Yes	—	—
Washington	Yes	Yes	—	—	Yes	Yes	—	Yes	—	—	—	—
West Virginia	Yes	—	Yes	Yes	—	Yes	—	Yes	Yes	—	—	—
Subtotal[d]	10	10	9	8	3	9	2	6	4	6	—	5
Participated year 2 only (n = 3)												
Indiana	NA	Yes	NA	Yes	NA	Yes	NA	—	NA	Yes	NA	Yes
New York	NA	Yes	NA	Yes	NA	—	NA	—	NA	—	NA	Yes
Wyoming	NA	Yes	NA	Yes	NA	—	NA	Yes	NA	—	NA	—
Subtotal[e]	—	3	—	3	—	1	—	1	—	1	—	2
Total, all states	10	13	9	11	3	10	2	7	4	7	—	7

[a] Consumer awareness focus area was added for year 2; dashes under year 1 indicate that no state was identified as working in consumer awareness because it was not a state-identified focus area in year 1.

[b] Year 1 focus areas were previously reported here: Kroelinger et al.[14]

[c] Dash indicates a state is not working within the focus area.

[d] Subtotal of states participating in both year 1 and 2 that included activities in each focus area.

[e] Subtotal of states participating in year 2 only that included activities in each focus area.

NA, not applicable (state did not participate in year 1); Yes, a state is working within the focus area.

Table 3.

Status of State-Developed Goals and Indication of Sustainable, Ongoing Activities at the Close of the Opioid Use Disorder, Maternal Outcomes, Neonatal Abstinence Syndrome Initiative Learning Community—13 States, 2021

Deidentified states[a]	Total goals identified	Complete with ongoing activities[b]	Complete[c]	Not complete though ongoing activities[d]	Not complete[e]
A	3	2	__[f]	1	—
B	3	1	—	2	—
C	3	—	—	3	—
D	4	2	—	1	1
E	3	1	—	2	—
F	3	3	—	—	—
G	3	1	2	—	—
H	4	—	4	—	—
I	4	—	—	4	—
J	2	1	—	1	—
K	2	1	—	1	—
L	2	—	—	2	—
M	3	3	—	—	—
Total	39	15	6	17	1

[a]Participating states deidentified to remove bias associated with goals that were de-prioritized or discontinued at the close of the OMNI LC.

[b]States identified whether one or more goals were complete with sustainable, ongoing activities continuing beyond the close of the OMNI LC.

[c]States identified whether one or more goals were complete with no additional activities continuing beyond the close of the OMNI LC.

[d]States identified whether one or more goals were not completed though sustainable, ongoing activities would continue beyond the close of the OMNI LC.

[e]States identified whether one or more goals were not completed at the close of the OMNI LC.

[f]A dash indicates a state with no response for that status category.

OMNI LC, Opioid Use Disorder, Maternal Outcomes, Neonatal Abstinence Syndrome Iniative Learning Community.

Table 4.

Barriers and Facilitators Affecting State-Identified Goal Completion at the Close of the Opioid Use Disorder, Maternal Outcomes, Neonatal Abstinence Syndrome Initiative Learning Community—13 of 15 States, 2021

Barrier theme	Barrier	No. of states
Competing priorities	Multiple priorities within birthing hospitals and a perceived lack of interest and motivation to participate in the OMNI LC Pandemic-related travel restrictions and shifts to virtual platforms impacted the ability to plan and deliver provider trainings Health systems overwhelmed by limited hospital capacity and staffing shortages due to the reassignment of staffs to pandemic-related relief efforts	11
State-level barriers	Lack of education and awareness among state leaders on issues related to pregnancy and substance use Long approval processes for systems-level changes (*e.g.*, Medicaid reimbursement for services up to a year postpartum)	3
Resource availability	Lack of activities to increase awareness and access for pregnant and postpartum people who chose OUD treatment Lack of funding mechanisms identified to develop and evaluate comprehensive and supportive training programs for providers	3
Facilitator theme	**Facilitator**	
Partner collaboration	The OMNI LC facilitates communication, widespread dissemination of information, and collaboration between providers, delivery facilities, Perinatal Quality Collaboratives, state leadership, and state agencies Buy-in from state leadership and state agencies to support systems-level change, staffing, and technical assistance	8
State-level leadership support	Recommendations from providers to state leadership to garner commitment and support for substance use treatment programming	4
Resource utility	Receipt of external resources to support opioid-related activities and staffing Adaptation of existing resources, materials, and tools for rapid implementation	3

OMNI LC, Opioid Use Disorder, Maternal Outcomes, Neonatal Abstinence Syndrome Initiative Learning Community.

Table 5.

Strategies for Sustainment Activities at the Close of the Opioid Use Disorder, Maternal Outcomes, Neonatal Abstinence Syndrome Initiative Learning Community—13 of 15 States, 2021

Strategies for sustainment activities[a]	No. of states
Offer ongoing provider training for screening, best clinical practices, trauma-informed care, and family-based services	9
Maintain the work of the OMNI LC through existing partnerships, alignment between agency and community efforts, support from state leadership, and engagement of additional partners	8
Partner with Perinatal Quality Collaboratives to expand access to services	8
Implement state task forces and develop strategic plans to continue programmatic activities	7
Collaborate with other states to obtain examples of clinic workflow and information dissemination materials	4
Adopt plans of safe care, integrate the social determinants of health into screening and services, and develop patient safety bundles to maintain the work of the Perinatal Quality Collaboratives at delivery facilities	4
Improve data collection, evaluation, and quality improvement initiatives in programmatic activities including family visits	3

[a]Strategies for sustainment activities assessed for 1 to 5 years post-LC.