



LINK (Linking Identification & Navigation for Perinatal Mental Health & Substance Use Care) Initiative

Minnesota Perinatal Quality Collaborative (MNPQC) Progress Report

October 2024-October 2025

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Executive Summary

Perinatal mental health conditions (PMHC) and substance use disorders (SUD) are common, frequently co-occurring, and deeply interconnected drivers of maternal and infant morbidity. Despite growing awareness and evidence-based guidance, many hospitals continue to face challenges related to consistent screening, timely referral, and coordinated navigation to supportive services for pregnant and postpartum people.

In response to these persistent gaps, the Minnesota Perinatal Quality Collaborative (MNPQC) launched the **Linking Identification and Navigation for Perinatal Mental Health and Substance Use Care (LINK) Initiative** in October 2024. LINK was a twelve-month, statewide quality improvement initiative designed to strengthen hospital-based systems for identifying PMHC and SUD, reducing variation in screening practices, and improving referral pathways to mental health, substance use, and social support services.

Six hospital teams from across Minnesota participated in LINK, engaging in monthly learning sessions, testing changes through Plan-Do-Study-Act (PDSA) cycles, and submitting monthly data to track progress over time. Through multidisciplinary collaboration, trauma-informed approaches, and sustained quality improvement support, participating teams advanced more consistent screening practices, enhanced referral workflows, and strengthened coordination of care across the perinatal continuum.

By the conclusion of the initiative, hospitals demonstrated meaningful progress toward integrated, family-centered approaches to perinatal mental health and substance use care. LINK reinforced the value of addressing PMHC and SUD together, building sustainable systems that support pregnant and postpartum people while centering dignity, respect, and caregiver–infant connection.

MNPQC Background

The Minnesota Perinatal Quality Collaborative (MNPQC), established in 2018, is a nonprofit organization dedicated to improving perinatal health outcomes across Minnesota. As part of the national network of Perinatal Quality Collaboratives supported by the Centers for Disease Control and Prevention (CDC), MNPQC brings together hospitals, healthcare systems, public health agencies, and community partners to drive system-level improvements in maternal and infant health.

MNPQC supports participating hospitals through evidence-based quality improvement frameworks, including those developed by the Institute for Healthcare Improvement (IHI). These frameworks emphasize multidisciplinary collaboration, data-driven decision-making, and iterative testing of change. In 2022, MNPQC joined the Alliance for Innovation on Maternal Health (AIM), further aligning its work with national patient safety bundles and best practices aimed at improving maternal outcomes and reducing preventable harm.

Through its collaborative model, MNPQC partners with more than 80 organizations statewide, supporting hospitals of varying size, geography, and resource capacity to implement meaningful and sustainable improvements in perinatal care.

Linking Identification & Navigation for Perinatal Mental Health & Substance Use Care Initiative Introduction

Aligned with Minnesota hospital priorities for 2024–2025, the LINK Initiative was developed to address longstanding challenges related to the identification and navigation of care for pregnant and postpartum people experiencing PMHC and SUD. These conditions often co-occur and, when unrecognized or untreated, contribute to increased risk for adverse maternal and infant outcomes, fragmented care experiences, and unjust involvement of child welfare and social systems.

LINK intentionally addressed perinatal mental health and substance use together, recognizing that siloed approaches can limit effectiveness and exacerbate harmful stereotypes. The initiative focused on strengthening hospital-based systems for screening, referral, and follow-up, while promoting trauma-informed, culturally responsive, and person-centered care.

Participating hospitals received structured education, peer learning opportunities, and individualized technical assistance through monthly virtual sessions. Teams were supported in implementing or refining validated screening tools, testing referral workflows, and building sustainable processes tailored to their local context.

Project Structure

Hospital Teams

The LINK Initiative engaged six hospital teams representing diverse geographic regions and care settings across Minnesota:

- Aspirus St. Luke's Duluth
- Centracare Health- St. Cloud
- Essentia Health-Virginia
- Essentia Health St. Mary's Detroit Lakes
- United Hospital District
- Windom Area Health

Each hospital formed a multidisciplinary team, primarily composed of floor nurses, nurse managers, and nurse educators, with additional participation from social work, behavioral health, and leadership as appropriate. This nursing-led model positioned improvement work directly at the point of care, supporting practical, workflow-integrated change.

Teams participated in monthly collaborative learning sessions, submitted monthly data through the SimpleQI platform, and engaged in multiple PDSA cycles throughout the project period. This

structure allowed teams to test changes on a small scale, learn from data and peer feedback, and refine interventions to support sustainability.

Content Experts

Throughout the initiative, hospital teams were supported by a multidisciplinary group of content experts who provided guidance on quality improvement methodology, clinical implementation, and trauma-informed perinatal care. Faculty expertise spanned perinatal mental health, substance use care, nursing practice, behavioral health, and systems improvement.

- **Jane Taylor, Ed. D., MHA, MBA** (MNPQC Improvement Advisor)
- **Caralyn Schnick, MPH** (DHS Perinatal Program Consultant)
- **Amarachi Amaikwu, RN, BSN** (Regions Hospital)
- **Amy Hurst, APRN, CNM** (Allina Health)
- **Jessica Schwartz, RN, CARN** (SUD Program Manager- Essentia Health)
- **Lauren Graber, MD, MPH** (Family & Addiction Medicine- HCMC)
- **Emily Johnson, MHA** (Maternal Health Advocate & Patient Family Partner)
- **Lauren Klee, MD** (Psychiatrist- Health Partners)
- **Gabrielle Mauren, PhD, LP, PMH-C** (Psychologist- Park Nicollet)
- **Sky Rogers, APRN, CNM** (Nurse Midwife- Essentia Health)
- **Rachel Sprague, RN, PHN** (MDH- SUD Nurse Consultant)

This faculty model ensured that teams had access to timely, evidence-based guidance while maintaining flexibility to adapt strategies to local needs and resources.

Tools and Resources

MNPQC provided participating teams with a curated set of tools and resources to support implementation and sustainment of improvements. These included:

- [**AIM Care for Pregnancy and Postpartum People with Substance Use Disorder Bundle**](#), offering actionable strategies to improve care quality and outcomes for birthing people with SUD.
- [**AIM Perinatal Mental Health Conditions Bundle**](#), providing evidence-based guidance for screening, response, and follow-up related to PMHC.
- [**LINK ECHO educational series**](#), featuring expert-led didactics and peer
- **Validated screening tools** for perinatal mental health and substance use disorders.
- **Task Force on Pregnancy Health and Substance Use Disorder resources**, supporting alignment with statewide recommendations.

These tools enabled teams to standardize practices, reduce variation, and align hospital-level changes with national best practices while maintaining adaptability across care settings.

Changes Tested by Teams

Through iterative Plan-Do-Study-Act (PDSA) cycles, participating hospital teams tested and implemented a range of interventions aligned with the LINK driver diagram. While approaches varied by facility based on local context, staffing, and available resources, several consistent themes emerged across the collaborative.

Hospital teams focused on **standardizing screening practices** by integrating validated tools, including SBIRT, 5P's, and the Edinburgh Postnatal Depression Scale (EPDS), into routine clinical workflows and electronic health records. Screening was implemented at multiple touchpoints, including prenatal care, hospital admission, postpartum encounters, and, in some cases, pediatric and family medicine visits, supporting **earlier identification and ongoing follow-up** for both perinatal mental health conditions and substance use disorders.

Teams also worked to **strengthen referral pathways and care navigation**, testing processes to track referrals made prenatally and postpartum, expanding access to telehealth mental health services, and embedding mental health and substance use resources into after-visit summaries. Several sites paired these workflow changes with staff education to ensure consistent response and follow-through after a positive screen.

A strong emphasis was placed on **multidisciplinary collaboration**, with nursing, social work, behavioral health, and care coordination teams working together to support patients and families. In some facilities, multidisciplinary team check-ins were leveraged to align care plans early in pregnancy and ensure continuity through discharge.

Across all sites, teams intentionally incorporated **trauma-informed and person-centered approaches**, recognizing the importance of addressing prejudice in screening, testing, and reporting practices. Education for patients and families prior to discharge, alongside clear communication about available supports, helped reinforce trust and engagement in care.

Collectively, these changes reflect hospitals' efforts to move beyond isolated screening toward integrated systems of identification, referral, and navigation that are embedded within everyday clinical practice and responsive to the needs of pregnant and postpartum women and their families.

Family of Measures

To assess hospital team progress and overall project impact, MNPQC established a structured family of measures for the LINK Initiative. In collaboration with MNPQC faculty and content experts, an initial broad set of potential measures was refined to a focused, feasible collection aligned with the changes tested by participating teams and the core aims of the initiative. Measures were selected to balance rigor with practicality, recognizing variation in hospital size, patient volume, and data infrastructure.

Together, the outcome and process measures provide a comprehensive view of how changes in screening and referral practices influenced care delivery and patient outcomes over time.

Outcome Measures: Outcome measures were designed to assess whether improvements in identification and navigation translated into meaningful connections to care and supported family-centered outcomes.

1. **Percent of pregnant and postpartum women with Substance Use Disorders (SUD) who received or were referred to supportive services.** This measure assessed the effectiveness of referral pathways and care navigation following identification of substance use concerns. It reflects hospitals' ability to move beyond screening to ensure timely access to treatment, behavioral health services, and community-based supports.
2. **Percent of pregnant and postpartum people with Perinatal Mental Health Conditions (PMHC) who received or were referred to supportive services.** This measure evaluated whether individuals identified with perinatal mental health conditions were connected to appropriate services, including counseling, psychiatry, and other supportive resources. Improvements in this measure indicate strengthened coordination between screening, clinical response, and follow-up care.
3. **Length of stay (in days) for all newborns exposed to opioids and/or other substances (if applicable).** This measure served as a downstream indicator of coordinated, family-centered care for substance-exposed newborns. While influenced by multiple clinical and social factors, reductions or stabilization in length of stay may reflect improved prenatal identification, caregiver engagement, and supportive care practices.
4. **Percent of newborns exposed to substances in utero who were discharged to either birth parent.** This measure assessed family preservation and caregiver–infant connection following birth. It reflects hospitals' efforts to support families through coordinated care, reduce unnecessary separation, and promote safe discharge planning when appropriate.

Process Measures: Process measures focused on assessing the reliability and consistency of key clinical practices necessary to achieve the initiative's aims.

1. **Percent of pregnant and postpartum people screened for Perinatal Mental Health Conditions (PMHC) with a validated tool.** This measure evaluated the extent to which standardized, evidence-based screening tools were embedded into routine care across participating sites. High and sustained performance indicates successful integration of screening into clinical workflows.
2. **Percent of pregnant and postpartum people screened for Substance Use Disorders (SUD) with a validated tool.** This measure assessed consistency in substance use screening practices and supported monitoring of fair application across patient populations. Improvements reflect reduced variation in screening and increased confidence among staff in conducting screenings using validated instruments.

Hospital teams submitted data monthly through the SimpleQI platform, allowing for real-time monitoring of trends and iterative learning throughout the project period. Data were reviewed during collaborative learning sessions to support shared learning, identify barriers, and inform subsequent PDSA cycles.

Rather than serving as punitive benchmarks, measures were used as tools for reflection, learning, and continuous improvement. This approach encouraged transparency, fostered peer exchange, and supported teams in adapting interventions to their local context while maintaining alignment with LINK's overarching goals.

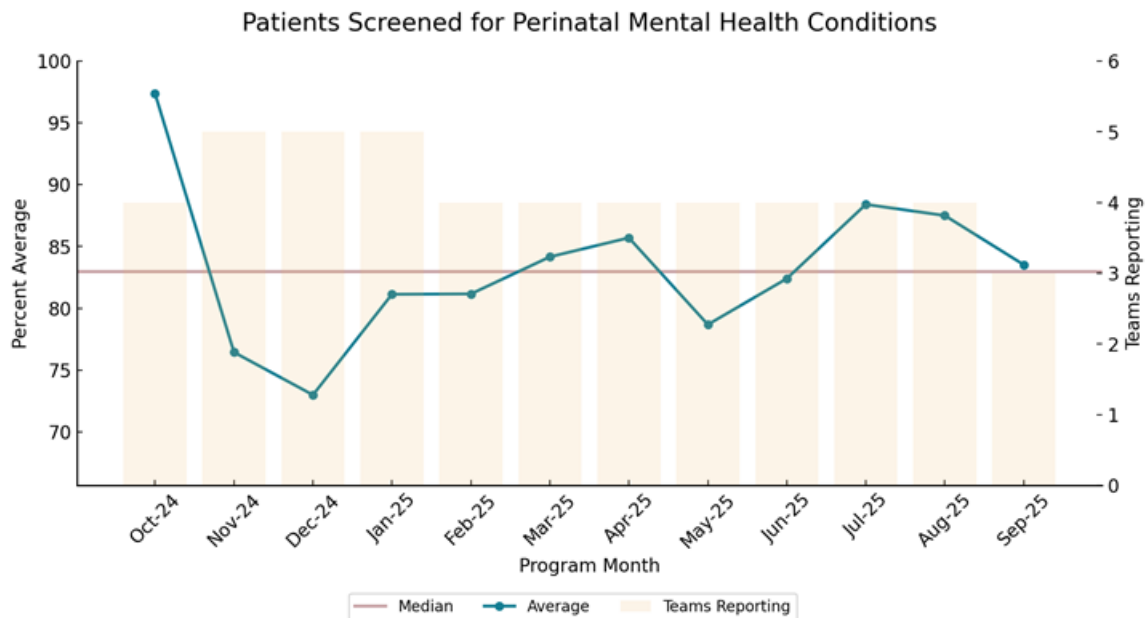
Results

Process Measures

To determine the effectiveness of the LINK initiative, participating facilities collected data on screening, referral and follow-up of patients experiencing perinatal mental health conditions and substance use disorders. To effectively measure the impact of quality initiatives, initial process measures were collected to ensure reliability and consistency of key clinical practices necessary to achieve the initiative's aim. The process measures utilized in the LINK initiative examined the percentage of patients who were screened for Perinatal Mental Health Conditions (PMHC) or Substance Use Disorders (SUD).

Process Measure #1:

Aggregate Percent Screened for Perinatal Mental Health Conditions (PMHC)

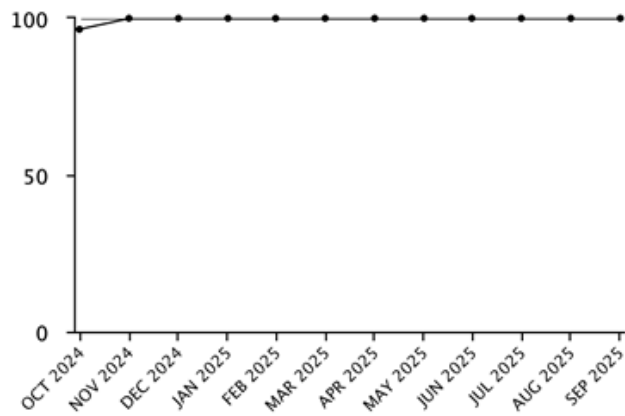


Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	97.4	76.4	73.0	81.1	81.2	84.2	85.7	78.7	82.4	88.4	87.5	83.5
PMCH Screenings	146	214	256	235	189	224	227	198	214	279	215	232
Pregnant/ Postpartum Patients	149	307	338	313	280	268	270	282	283	323	276	260

Trend

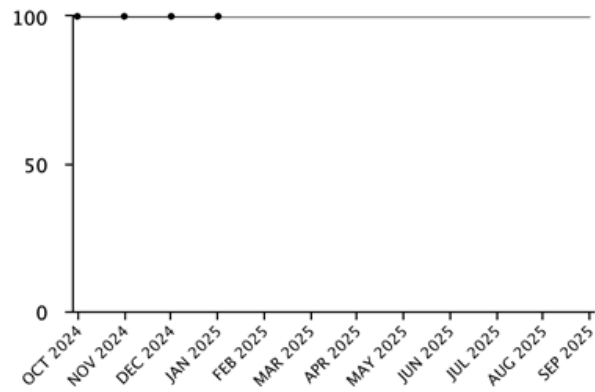
Facility Percent Screened for PMHC

Facility 1:



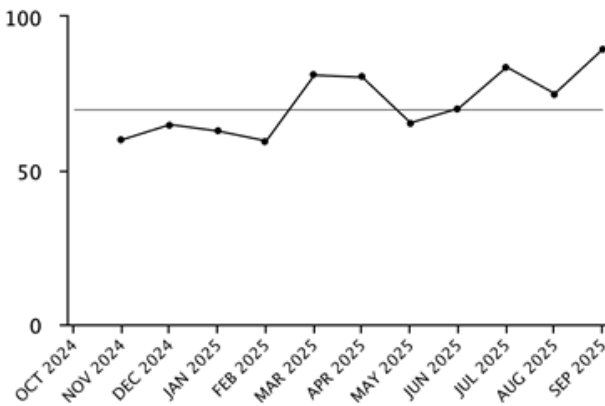
Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	96.6	100	100	100	100	100	100	100	100	100	100	100
PMCH Screenings	57	22	45	32	43	38	43	33	42	55	26	43
Pregnant/ Postpartum Patients	59	22	45	32	43	38	43	33	42	55	26	43

Facility 2:



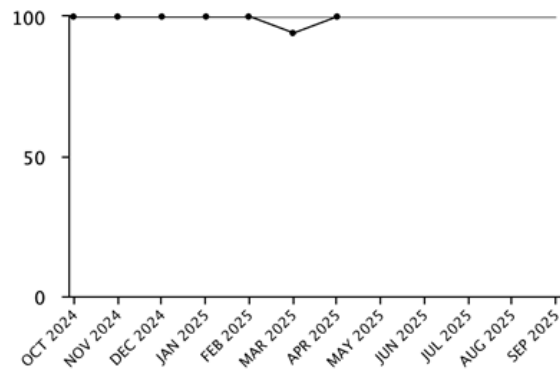
Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	100	100	100	100	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report
PMCH Screenings	55	54	52	63								
Pregnant/ Postpartum Patients	55	54	52	63								

Facility 3:



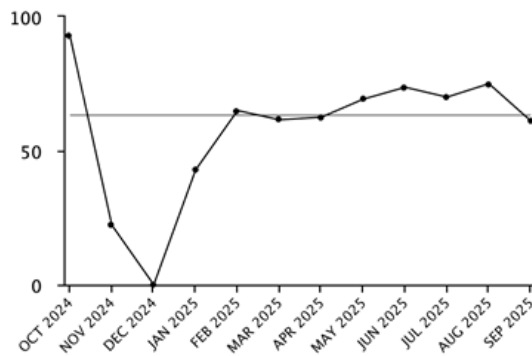
Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	Unable to Report	60	64.9	62.8	59.6	81	80.3	65.5	70.2	83.6	75	89.4
PMCH Screenings		129	137	125	124	162	163	148	146	194	174	178
Pregnant/ Postpartum Patients		215	211	199	208	200	203	226	208	232	232	199

Facility 4:



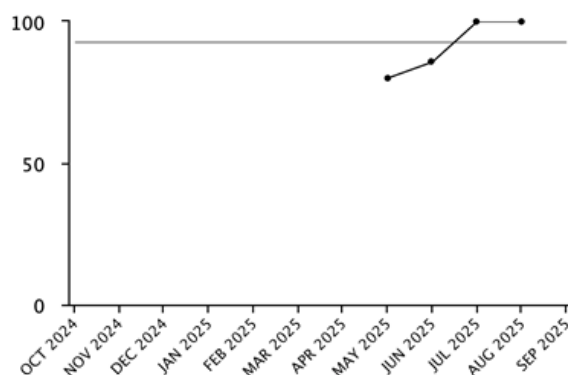
Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	100	100	100	100	100	94.12	100	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report
PMCH Screenings	21	7	22	12	9	16	16	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report
Pregnant/ Postpartum Patients	21	7	22	12	9	17	16					

Facility 5:



Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	92.9	22.2	0	42.9	65.0	61.5	62.5	69.2	73.7	70.0	75.0	61.1
PMCH Screenings	13	2	0	3	13	8	5	9	14	14	9	11
Pregnant/ Postpartum Patients	14	9	8	7	20	13	8	13	19	20	12	18

Facility 6:



Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report	80	85.7	100	100	Unable to Report
PMCH Screenings								8	12	16	6	
Pregnant/ Postpartum Patients								10	14	16	6	

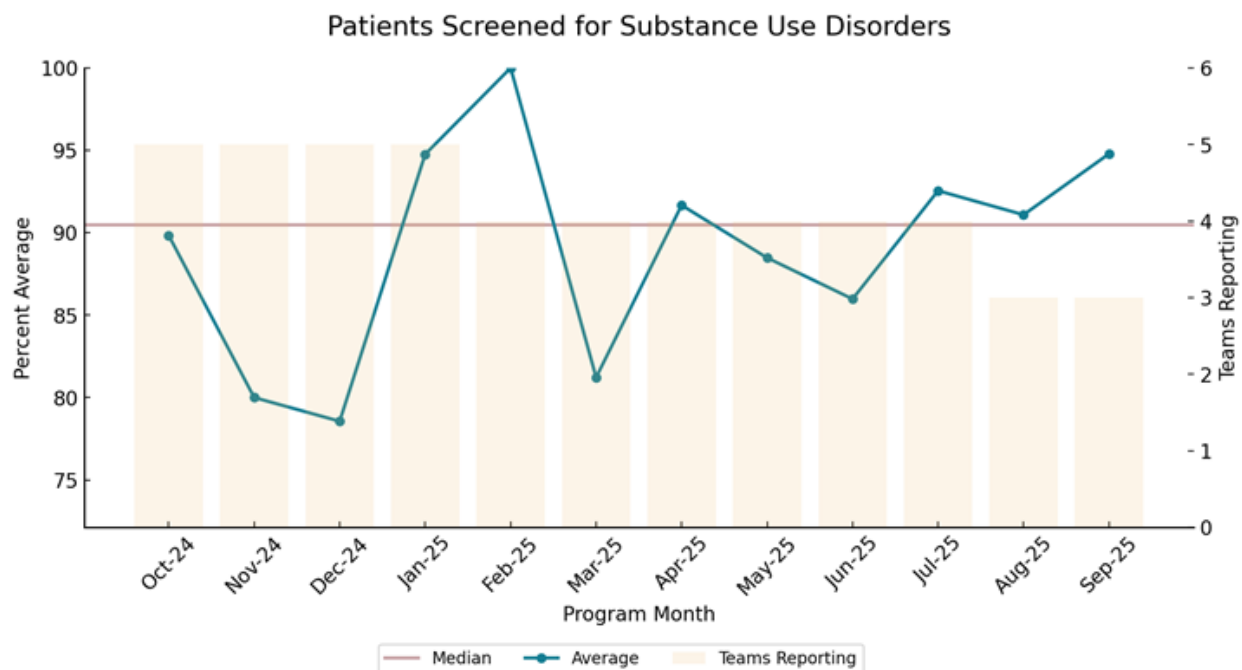
Measure Analysis

From December 2024 through April 2025, the aggregate data show five consecutive data points trending toward 100%, reflecting strong and sustained performance across most of the reporting period. In May, a brief decline below the median is observed; however, this appears transient, as performance subsequently rebounds and trends upward toward the end of the program.

Examination of the small multiple charts provides additional insight, indicating that three teams consistently reported values at or near 100% and therefore exerted a substantial influence on the overall aggregate trend. Consequently, the aggregate measure largely reflects the performance of these high-performing teams and partially obscures variability among the remaining sites. Notably, these other sites also demonstrate meaningful improvement over time, suggesting ongoing strengthening and increased consistency of screening protocols across participating facilities.

Process Measure #2:

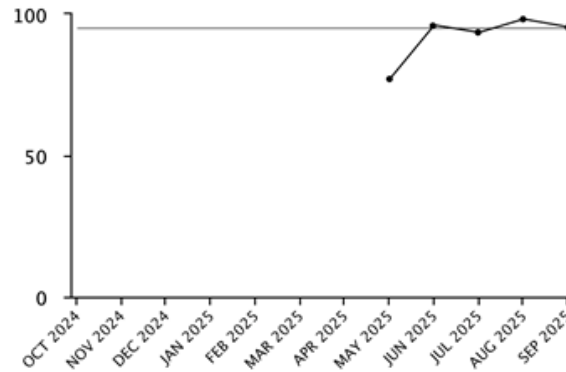
Aggregate Percent Screened for Substance Use Disorder (SUD)



Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	89.6	80.0	78.6	94.8	100	81.2	91.7	88.5	86.0	92.6	91.1	94.8
SUD Screenings	150	99	136	122	86	71	76	230	265	303	263	249
Pregnant/ Postpartum Patients	158	108	146	128	86	81	79	285	282	322	270	260

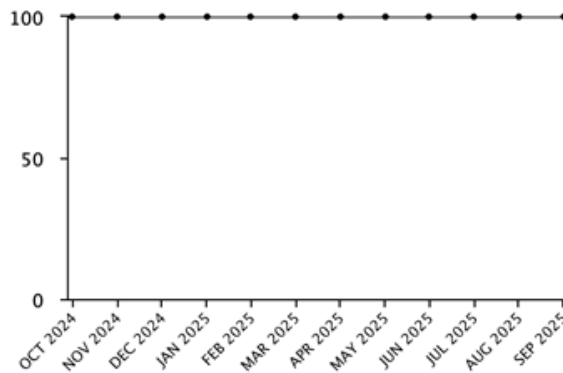
Facility Percent Screened for Substance Use Disorder (SUD)

Facility 1:



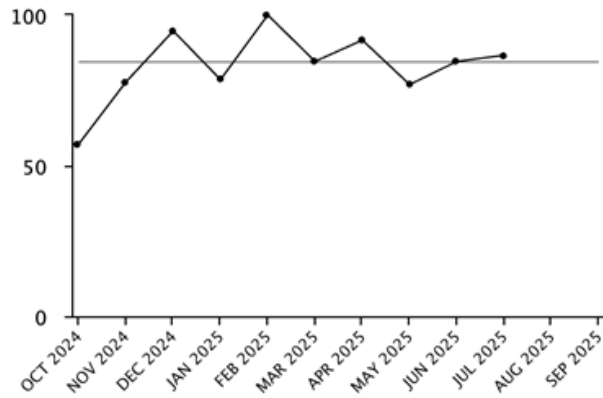
Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report	77.0	96.2	93.5	98.3	95.5
SUD Screenings	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report	174	200	217	228	190
Pregnant/ Postpartum Patients	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report	226	208	232	232	199

Facility 2:



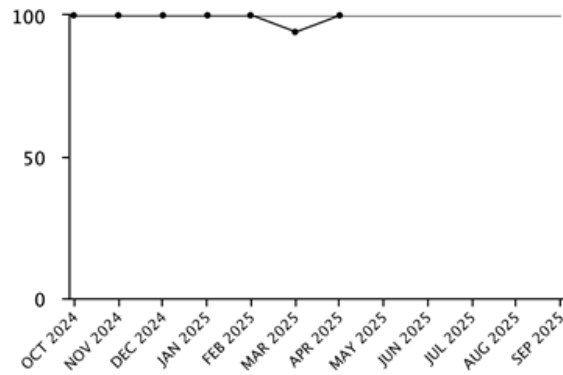
Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	100	100	100	100	100	100	100	100	100	100	100	100
SUD Screenings	59	29	45	32	43	38	43	33	42	55	26	43
Pregnant/ Postpartum Patients	59	29	45	32	43	38	43	33	42	55	26	43

Facility 3:



Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	57.1	77.8	94.7	78.6	100	84.6	91.7	76.9	84.6	86.7	Unable to Report	Unable to Report
SUD Screenings	8	7	18	11	14	11	11	10	11	13		
Pregnant/ Postpartum Patients	14	9	19	14	14	13	12	13	13	15		

Facility 4:



Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	100	100	100	100	100	94.1	100	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report
SUD Screenings	16	7	22	12	9	16	16					
Pregnant/ Postpartum Patients	16	7	22	12	9	17	16					

Measure Analysis

The aggregate data for this measure exhibit substantial month-to-month variability over the course of the initiative, with fluctuations above and below the median that do not suggest a consistent or sustained trend over time. With higher rates of screening in May through September 2025, less variability is observed. This suggests that if additional months of data were collected, improvement in screening may have been observed. Overall, the data indicates that, at the aggregate level, performance remained uneven and was not characterized by steady improvement or decline across the full cohort of participating sites.

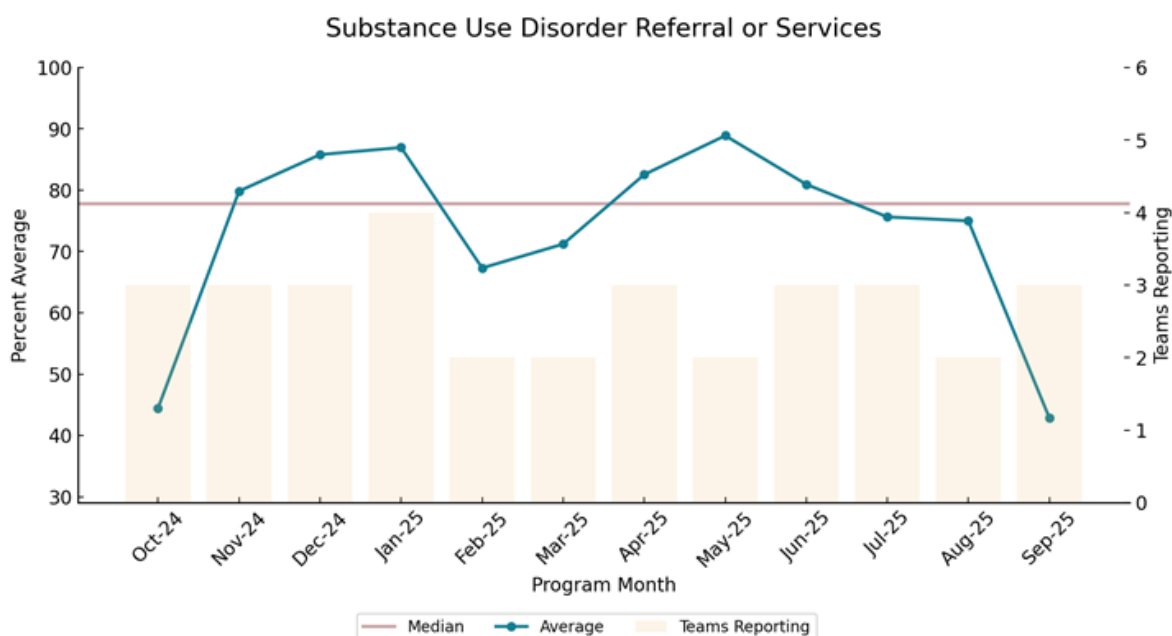
Closer examination of the small multiple charts provides important additional context. Similar to patterns observed for screening for perinatal mental health conditions, a subset of facilities consistently performed at a very high level, frequently reporting values at or near 100%. These high-performing sites exert a disproportionate influence on the aggregate average, pulling overall performance upward and partially obscuring variability among other facilities. While some sites demonstrate stable, high-functioning screening processes, others show more pronounced fluctuations, suggesting differences in workflow consistency, data capture, or implementation maturity.

Outcome Measures

Four outcome measures were collected across the 6 participating facilities to measure the impact of LINK interventions. Outcome measures included the percentage of patients with SUD or PMHC that received or were referred to supportive services, length of stay for substance exposed newborns and percentage of substance exposed newborns discharged to either birth parent. Results for each measure are summarized below.

Outcome Measure #1:

Aggregate Percent with Substance Use Disorder (SUD) Referral or Services

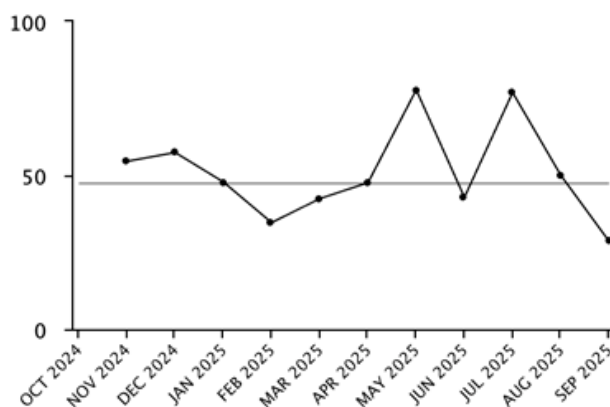


Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	44.4	79.9	85.8	87.0	67.3	71.2	82.5	89.0	81.0	75.6	75.0	42.9
SUD Referrals or Services	9	42	33	16	10	15	13	17	16	22	9	10
SUD Pregnant/ Postpartum Patients	13	65	56	28	27	34	24	21	24	26	14	22

Trend

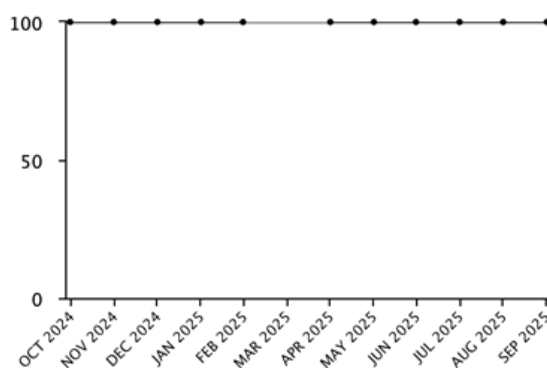
Facility Percent Substance Use Disorder (SUD) Referral or Services

Facility 1:



Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	Unable to Report	54.5	57.4	47.8	34.6	42.4	47.6	77.8	42.9	76.9	50	28.6
SUD Referrals or Services	Unable to Report	24	31	11	9	14	10	14	6	10	5	4
SUD Pregnant/ Postpartum Patients	44	54	23	26	33	21	18	14	13	10	14	

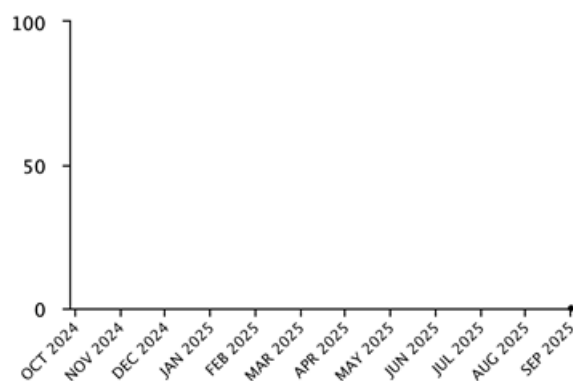
Facility 2:



Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	100	100	100	100	100		100	100	100	100	100	100

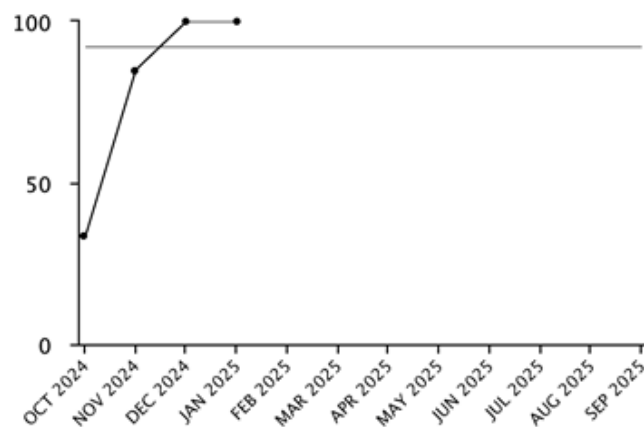
SUD Referrals or Services	8	1	1	3	1	No Exposures	2	3	9	11	4	6
SUD Pregnant/ Postpartum Patients	8	1	1	3	1		2	3	9	11	4	6

Facility 3:



Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	0
SUD Referrals or Services												0
SUD Pregnant/ Postpartum Patients												2

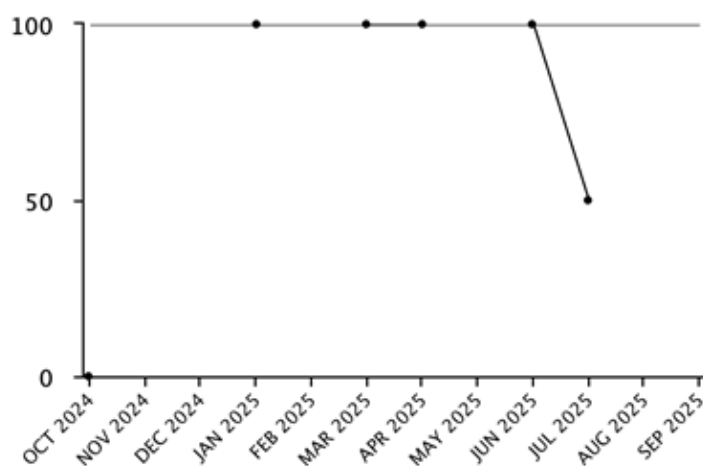
Facility 4:



Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
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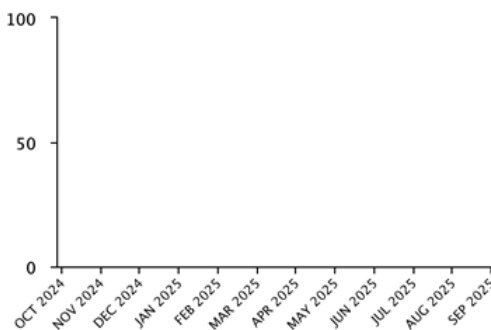
%	33.3	85	100	100	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report
SUD Referrals or Services	1	17	1	1								
SUD Pregnant/ Postpartum Patients	3	20	1	1								

Facility 5:



Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	0	Unable to Report	100	Unable to Report	100	100	Unable to Report	Unable to Report	100	50	Unable to Report	Unable to Report
SUD Referrals or Services	0		1		1	1			1	1		
SUD Pregnant/ Postpartum Patients	2		1		1	1			1	2		

Facility 6:



Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
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%	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report
SUD Referrals or Services												
SUD Pregnant/ Postpartum Patients												

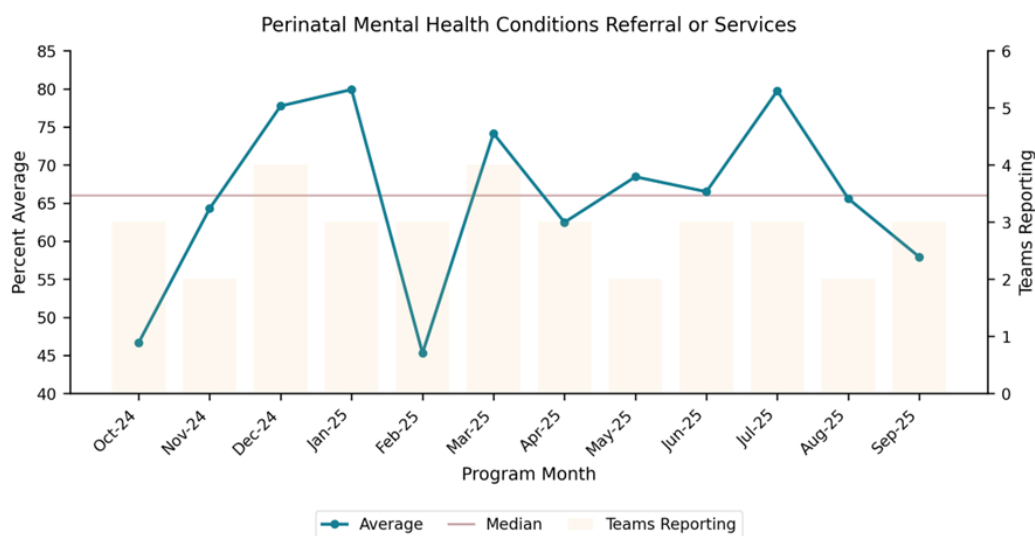
Measure Analysis

Similar to mental health referrals or services, the aggregate data for referral to or receipt of services following identification of a substance use disorder show notable variability across the initiative, with performance fluctuating above and below the median and no sustained trend or shift in the process over time. In general, a larger number of SUD pregnant and postpartum patients was associated with better performance, indicating the need for more consistency in the referral process.

Review of the small multiple charts indicates that the smaller facilities consistently report high performance. Other sites show greater variation or intermittent reporting, likely reflecting differences in referral workflows, access to treatment resources, staffing capacity, or the impact of small denominators.

Outcome Measure #2:

Aggregate Percent with Perinatal Mental Health Conditions Referral or Services

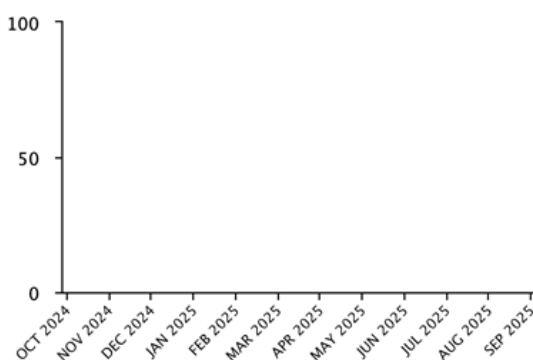


Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
									5			

%	46.67	64.28	77.76	79.92	45.3	74.16	62.48	68.46	66.5	79.76	65.59	57.93
PMHC Referrals or Services	4	7	67	53	37	85	46	49	27	27	26	31
PMHC Pregnant/ Postpartum Patients	10	12	123	103	91	143	94	93	73	61	79	81

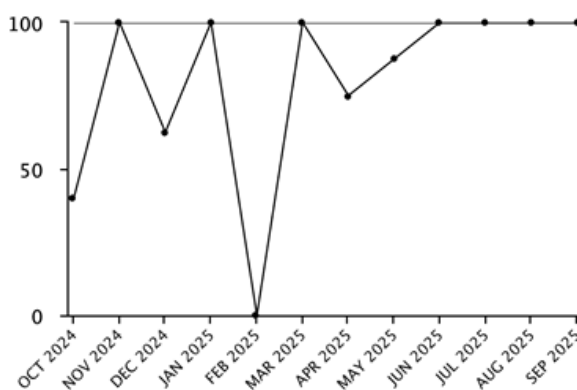
Facility Percent Perinatal Mental Health Conditions (PMHC) Referral or Services

Facility 1:



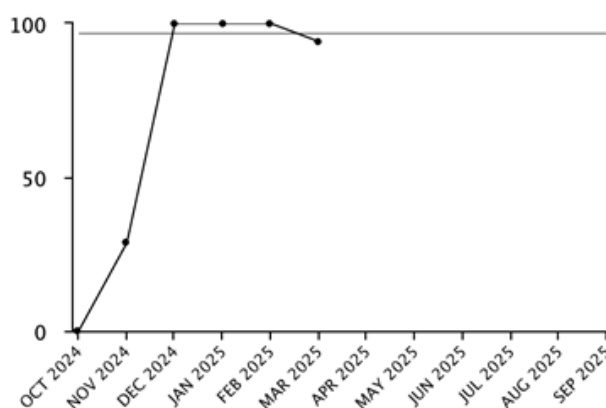
Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures
PMHC Referrals or Services												
PMHC Pregnant/ Postpartum Patients												

Facility 2:

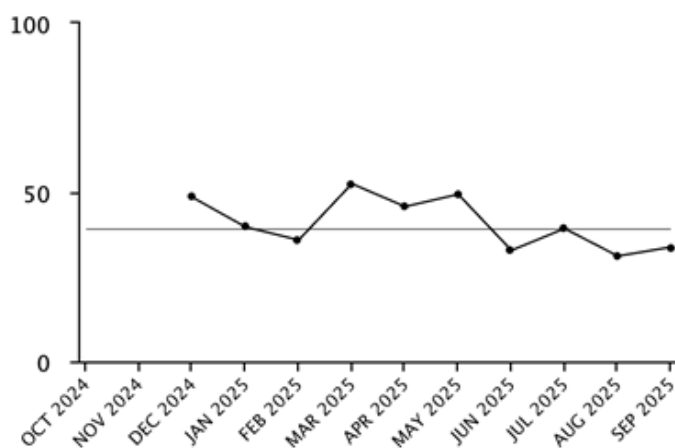


Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	40	100	62.5	100	0	100	75	87.5	100	100	100	100
PMHC Referrals or Services	2	5	5	8	0	6	6	7	3	4	2	5
PMHC Pregnant/ Postpartum Patients	5	5	8	8	4	6	8	8	3	4	2	5

Facility 3:

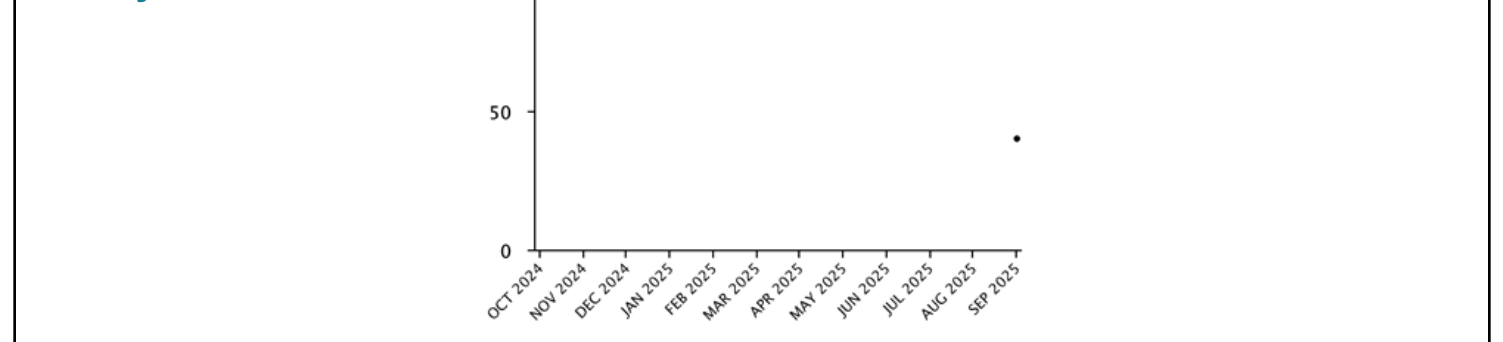


Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	0	28.6	100	100	100	94.1	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report
PMHC Referrals or Services	0	2	11	12	9	16						
PMHC Pregnant/ Postpartum Patients	3	7	11	12	9	17						

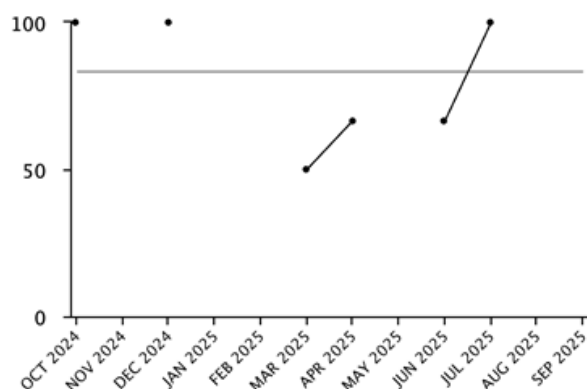


Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	Unable to Report	Unable to Report	48.5	39.8	35.9	52.5	45.8	49.4	32.8	39.3	31.2	33.8
PMHC Referrals or Services			50	33	28	62	38	42	22	22	24	24
PMHC Pregnant/ Postpartum Patients			103	83	78	118	83	85	67	56	77	71

Month	New COVID-19 Cases
OCT 2024	0
NOV 2024	0
DEC 2024	0
JAN 2025	0
FEB 2025	0
MAR 2025	0
APR 2025	0
MAY 2025	0
JUN 2025	0
JUL 2025	0
AUG 2025	0
SEP 2025	40



Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	40
PMHC Referrals or Services												2
PMHC Pregnant/ Postpartum Patients												5

Facility 6:

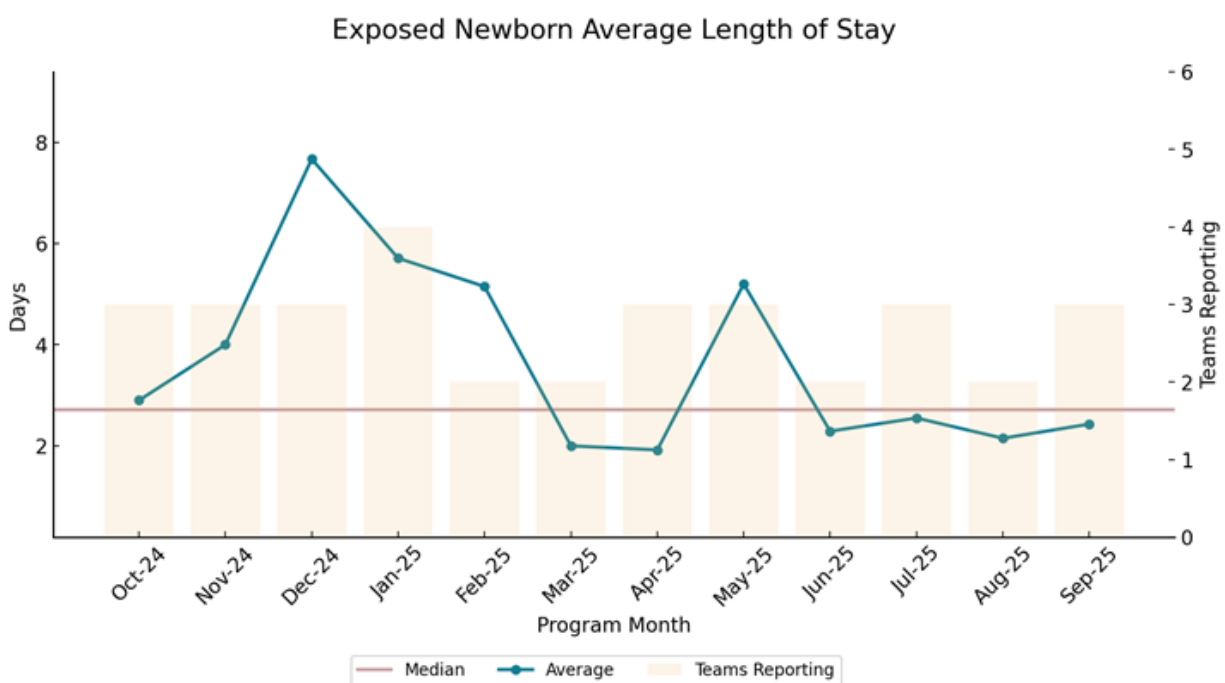
Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	100	Unable to Report	100	Unable to Report	Unable to Report	50	66.7	Unable to Report	66.7	100	Unable to Report	Unable to Report
PMHC Referrals or Services	2		1			1	2		2	1		
PMHC Pregnant/ Postpartum Patients	2		1			2	3		3	1		

Measure Analysis

Aggregate data for referral to or receipt of services following identification of a perinatal mental health condition show considerable month-to-month variability, with performance fluctuating above and below the median and no sustained upward trend over time. This suggests that referral processes are not yet consistently implemented across all participating sites.

Site-level review reveals that smaller facilities consistently report high referral rates, often near 100%. In contrast, larger volume sites demonstrate greater variability, likely reflecting differences in referral workflows, access to behavioral health resources, staffing capacity, or the impact of small denominators.

Outcome Measure #3:**Exposed Newborn Average Length of Stay (Days)**

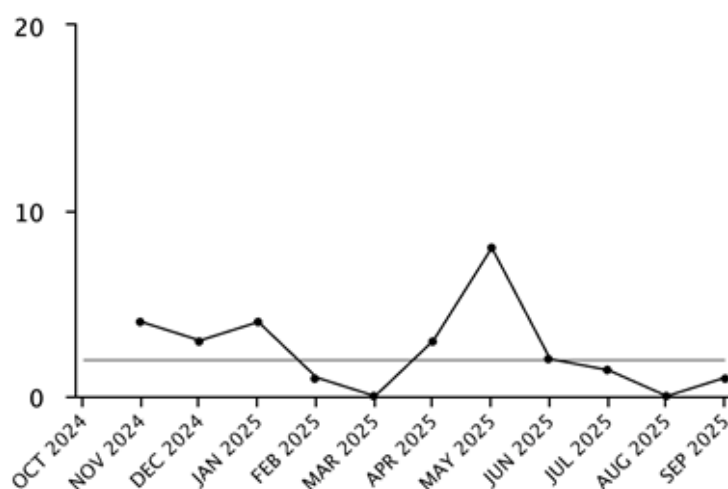


Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
Average (Days)	2.9	4	7.67	5.71	5.15	2	1.92	5.2	2.29	2.55	2.15	2.43

Trend

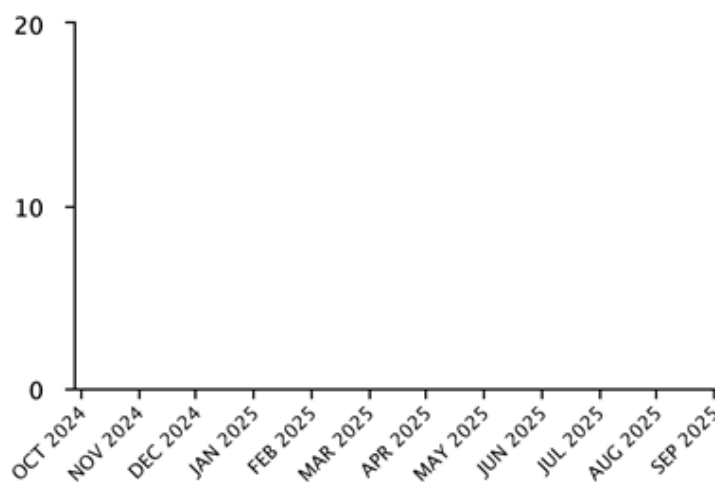
Facility Percent Exposed Newborn Average Length of Stay (Days)

Facility 1:



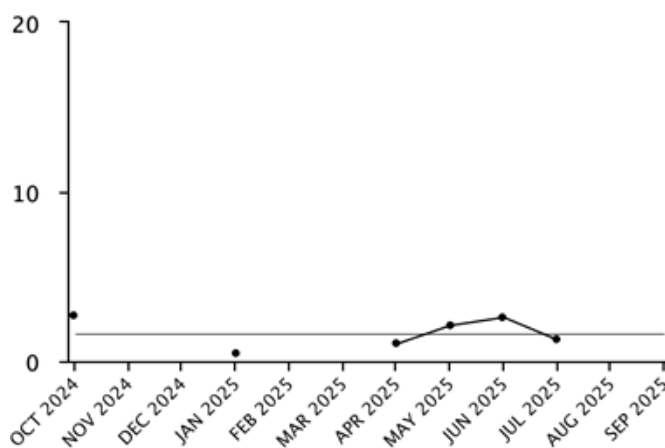
Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
Average	Unable to Report	4	3	4	1	0	3	8	2	1.4	0	1

Facility 2:



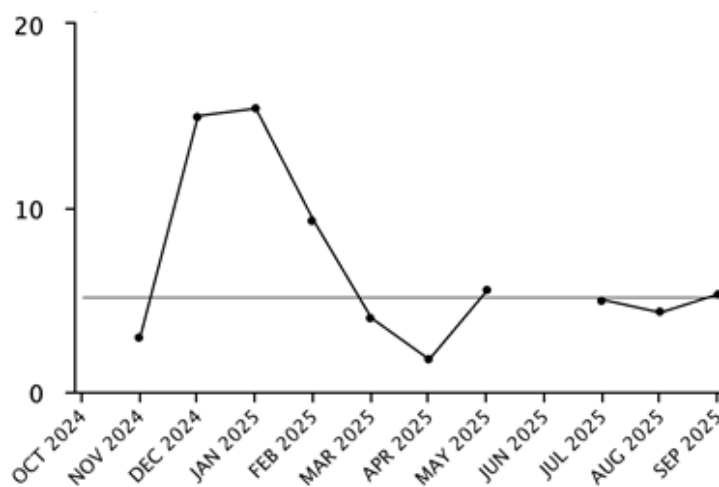
Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
Average	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report

Facility 3:

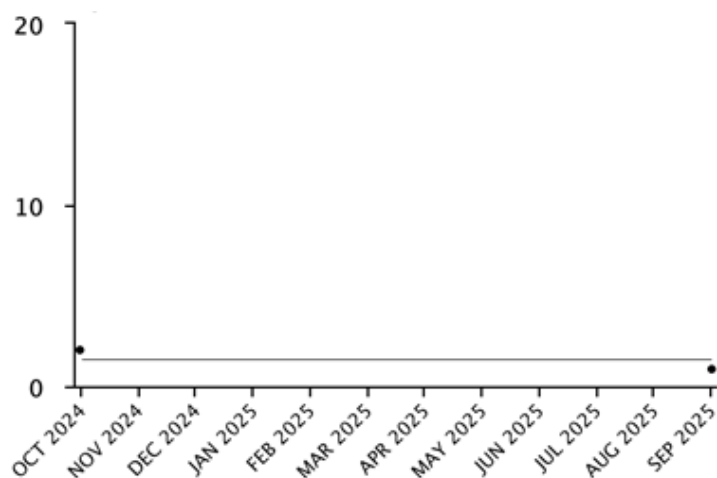


Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
Average	2.69	Unable to Report	Unable to Report	0.45	Unable to Report	Unable to Report	1.01	2.1	2.58	1.25	Unable to Report	Unable to Report

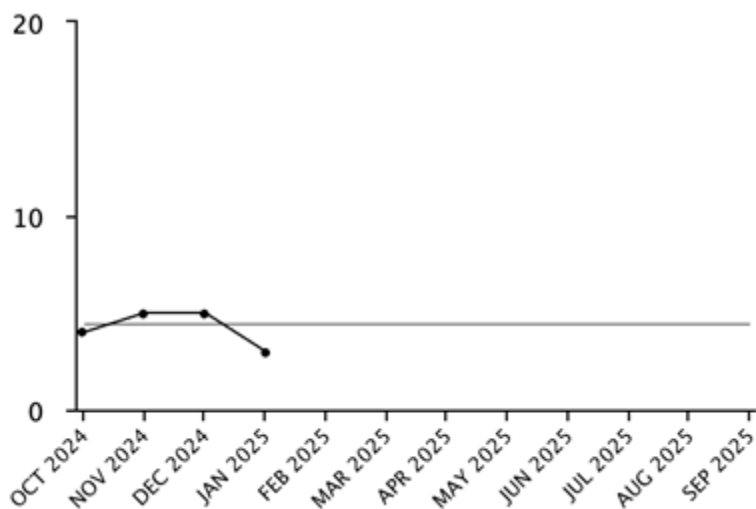
Facility 4:



Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
Average	Unable to Report	3	15	15.4	9.3	4	1.75	5.5	No Exposures	5	4.3	5.3

[illegible]

Facility 6:

[illegible]

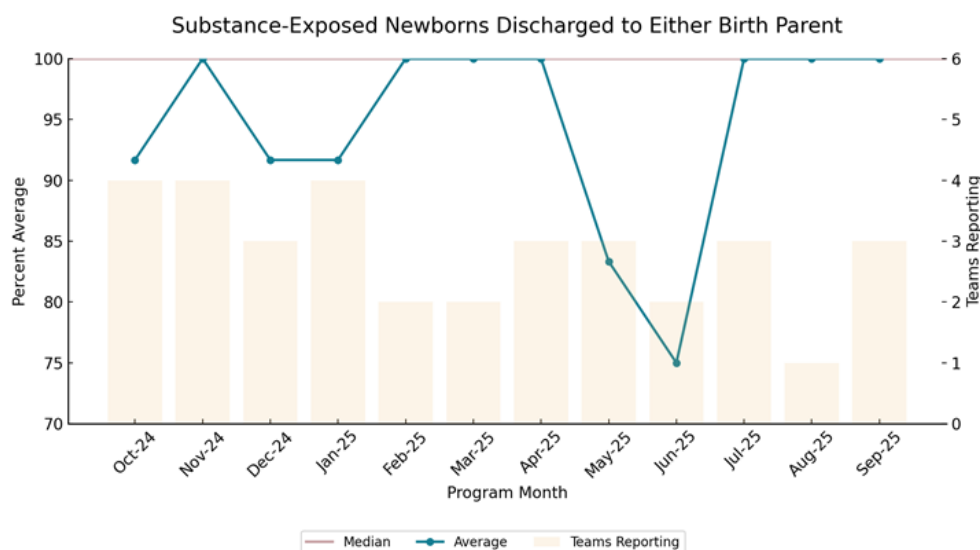
Measure Analysis

Aggregate data for average length of stay among exposed newborns show considerable variability early in the initiative, followed by shorter lengths of stay that stabilized later in the reporting period. After an initial peak in late 2024, the average length of stay decreases and remains closer to or below the median for much of the remainder of the program, suggesting overall improvement and increased consistency over time. Data beginning in June 2025 suggests a future shift in the process which would represent a strong signal of improvement.

Site-level analysis demonstrates meaningful variation across facilities. Two facilities consistently reported data for this measure throughout the program, while other sites were either unable to report or did not have reportable cases. As a result, these two facilities disproportionately influence the aggregate trends. Although this reflects strong and sustained performance at these sites, it highlights the importance of reviewing facility-level data to better understand differences in implementation, identify opportunities for targeted support, and ensure that aggregate results accurately reflect performance across the broader cohort.

Outcome Measure #4:

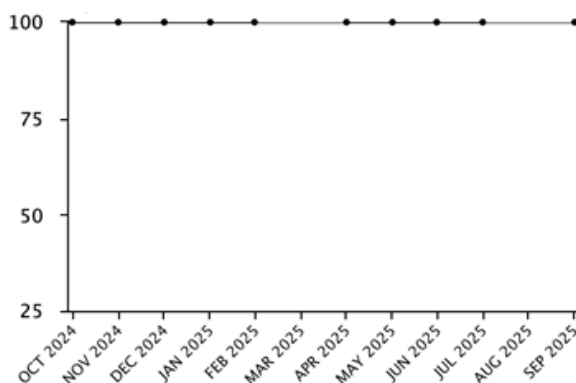
Aggregate Percent of Substance Exposed Newborns Discharged to Either Birth Parent



Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	91.7	100	91.7	91.7	100	100	100	83.3	75	100	100	100
Exposed in utero discharged to birth parent	14	7	5	12	7	8	7	3	2	7	2	5
Total exposed in utero	15	7	6	13	7	8	7	4	3	7	3	5

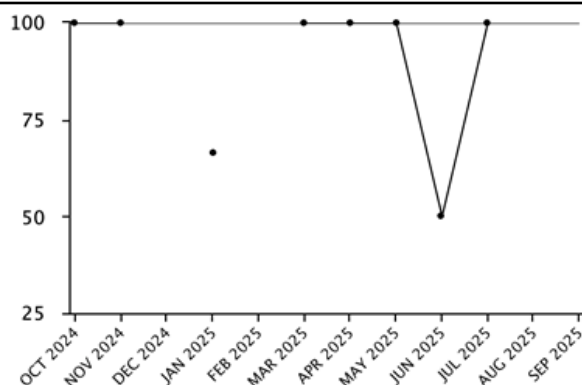
Facility Percent Substance-Exposed Newborns Discharged to Either Birth Parent

Facility 1:



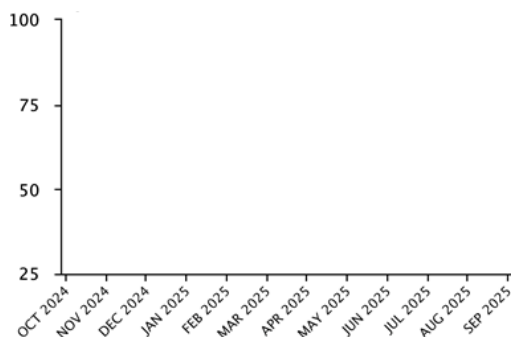
Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	100	100	100	100	100	No Exposures	100	100	100	100	No Exposures	100
Exposed in utero discharged to birth parent	8	1	1	3	1		1	1	1	2		1
Total exposed in utero	8	1	1	3	1		1	1	1	2		1

Facility 2:



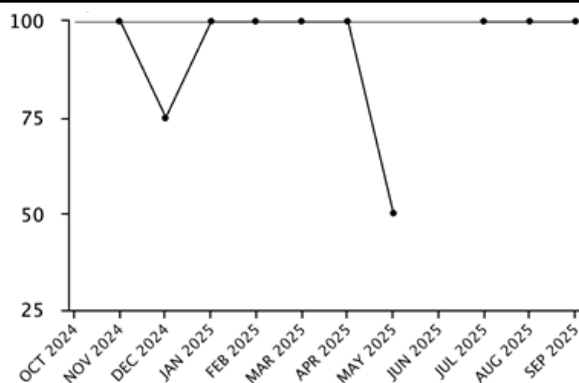
Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	100	100	No Exposures	66.67	No Exposures	100	100	100	50	100	100	100
Exposed in utero discharged to birth parent	3	1		2		1	2	1	1	1	3	1
Total exposed in utero	3	1		3		1	2	1	2	1	3	1

Facility 3:



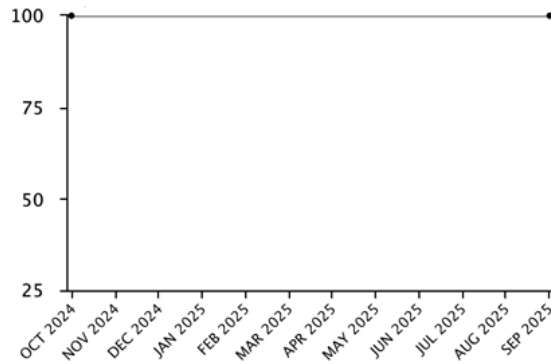
Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures
Exposed in utero discharged to birth parent												
Total exposed in utero												

Facility 4:



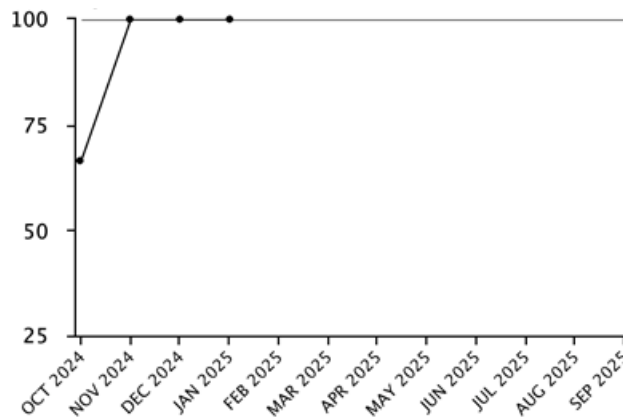
Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	Unable to Report	100	75	100	100	100	100	50	No Exposures	100	100	100
Exposed in utero discharged to birth parent		2	3	6	6	7	4	1		4	3	3
Total exposed in utero		2	4	6	6	7	4	2		4	3	3

Facility 5:



Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	100	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	No Exposures	100
Exposed in utero discharged to birth parent	1											1
Total exposed in utero	1											1

Facility 6:



Reporting Period	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
%	66.67	100	100	100	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report	Unable to Report
Exposed in utero discharged to birth parent	2	3	1	1								
Total exposed in utero	3	3	1	1								

Measure Analysis

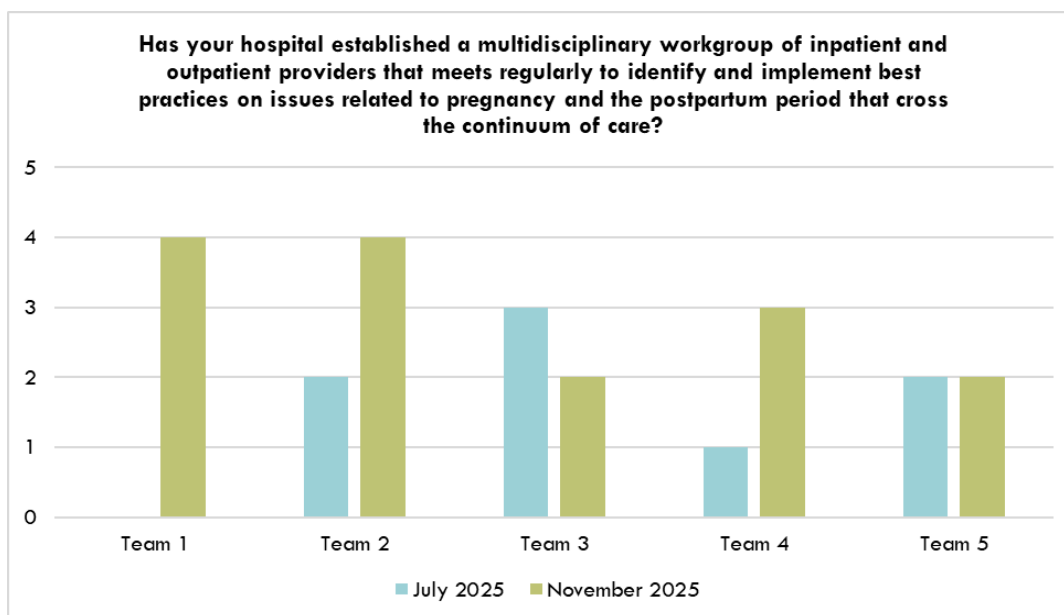
The aggregate results for this measure do not indicate change over time. However, closer examination of the team-level small multiples reveals substantial clustering at 100 percent, with many teams consistently reporting that all newborns are discharged to either birth parent every month. This pattern suggests that the measure may lack sufficient sensitivity to detect meaningful variation or improvement when viewed in aggregate. As a result, supplementing the current metric with a “rare event” or “time-between-events” measure would provide additional insight by focusing on the infrequent occurrences of alternative discharge dispositions. Such an approach would better capture meaningful variation across teams and over time, and would support more actionable interpretation of performance.

Midpoint & Post-Survey Results

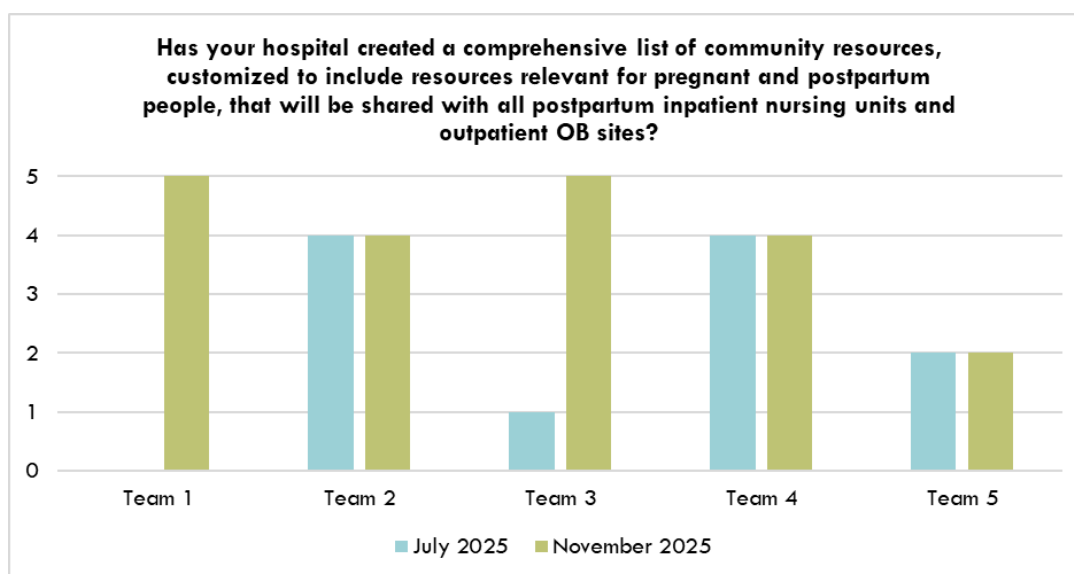
Structural measures at beginning, midpoint, and end of the project

The following graphs summarize team-reported implementation of structural measures at participating facilities. Teams were surveyed in July and again in November to assess progress over time. For each measure, teams rated their level of implementation on a 1–5 Likert scale, where 1 indicated that implementation had not yet begun and 5 indicated that the structure was fully in place and sustained.

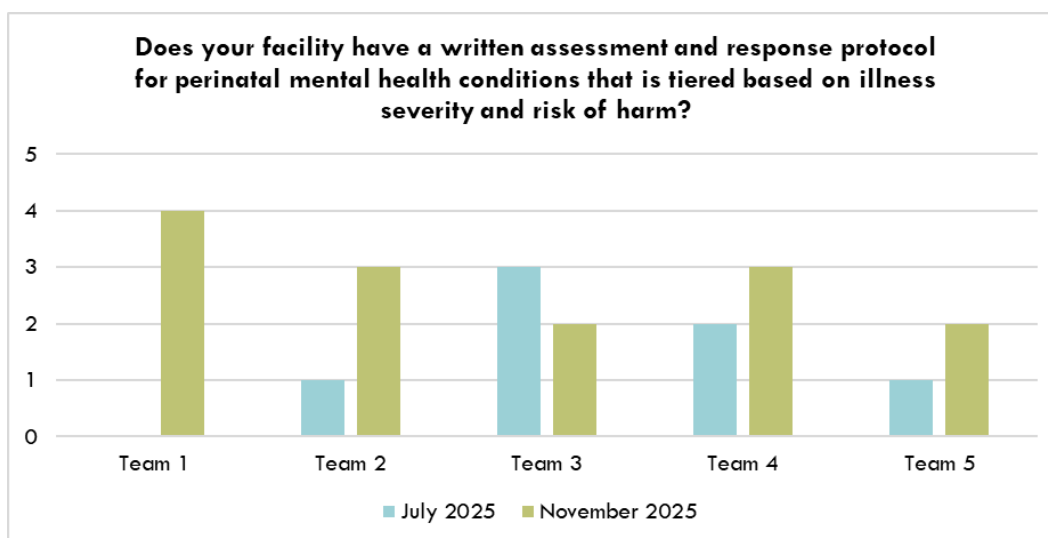
This initiative marked the first time structural measure implementation was assessed at multiple time points using Likert-scale methodology. A key lesson learned was the importance of clearly defining all response options on the scale, rather than only the endpoints. The absence of these definitions may have contributed to some of the discrepancies or apparent decreases observed in team-reported data. In response, subsequent programs now include explicit definitions for each scale point, which we expect will enhance consistency, accuracy, and reliability of reporting across time points.



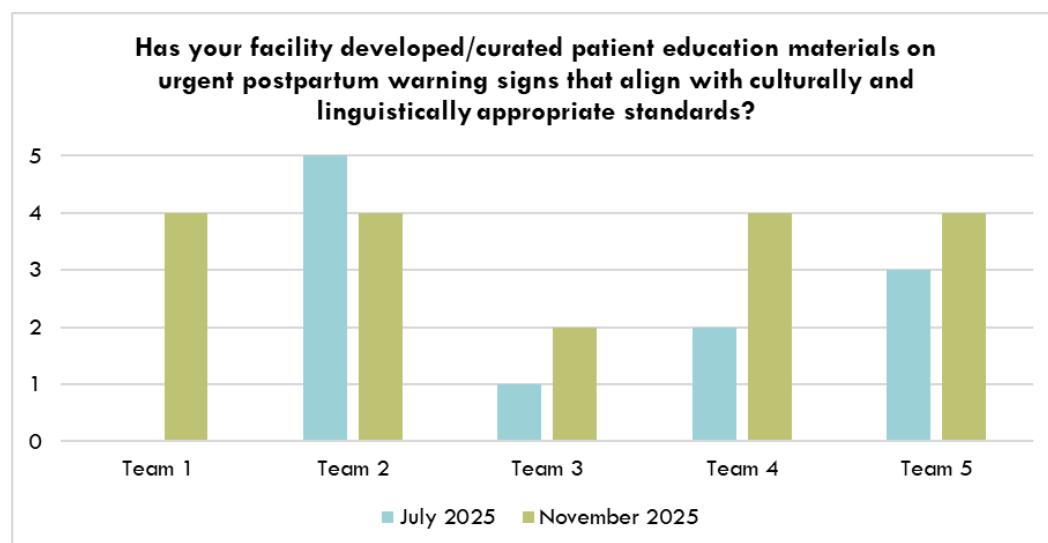
Teams generally reported increased or sustained performance on this structural measure from July 2025 to November 2025, with several teams reporting higher counts in November. This pattern suggests continued uptake and strengthening of regular, cross-continuum collaboration to support pregnancy and postpartum care.



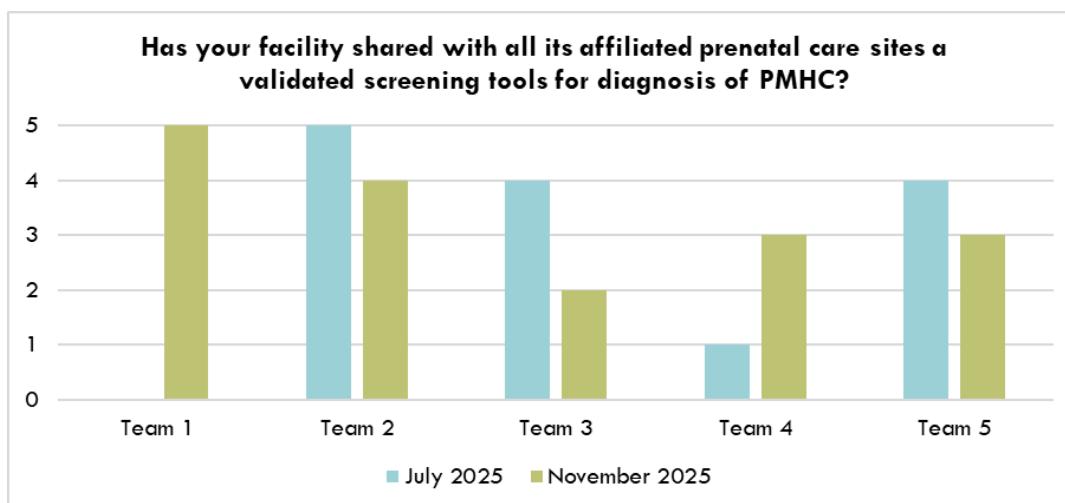
From July 2025 to November 2025, all teams demonstrated increased or sustained implementation of this measure, with notable gains among one team. This indicates continued advancement in formalizing and disseminating community resource information to support postpartum patients at their facilities.



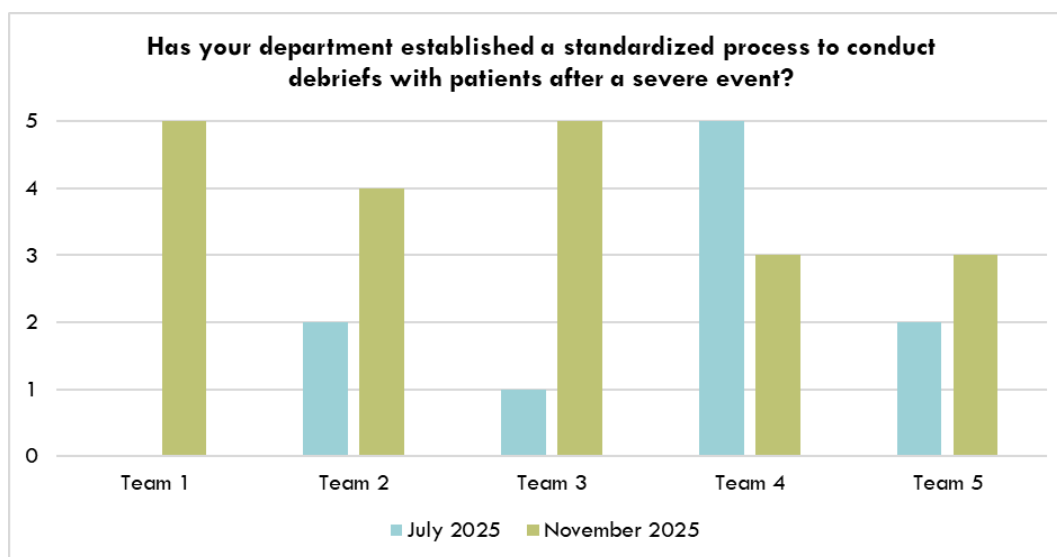
From July 2025 to November 2025, several teams reported improvements in this structural measure, while one team reported a moderate decline. Overall, these findings indicate progress toward implementing structured, risk-based approaches to perinatal mental health assessment and response across participating sites.



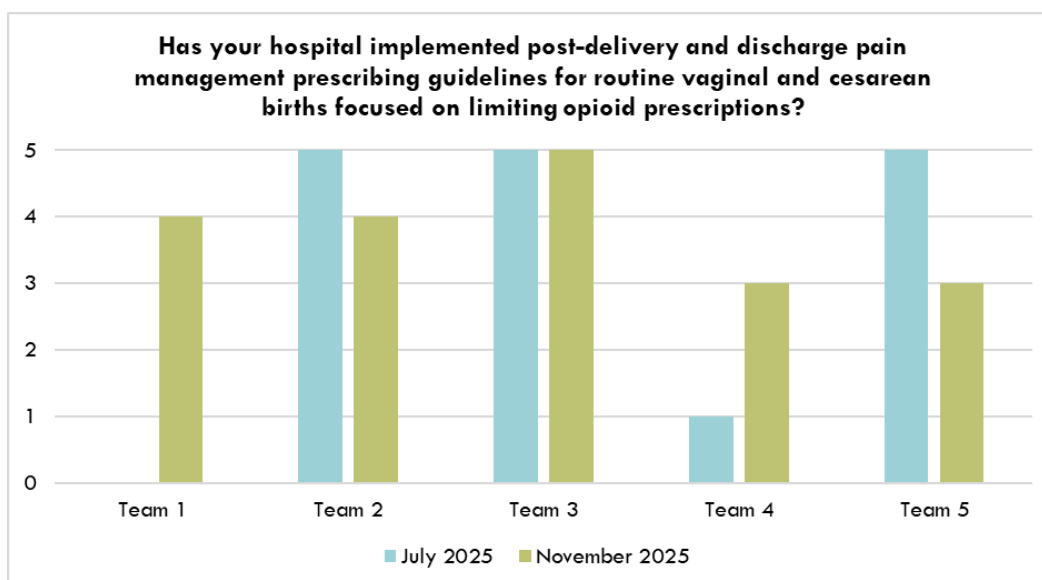
Between July 2025 and November 2025, most teams reported improvement or maintained high levels of implementation, with several teams showing notable gains in November. This may indicate strengthened efforts to ensure patients receive accessible and appropriate postpartum education.



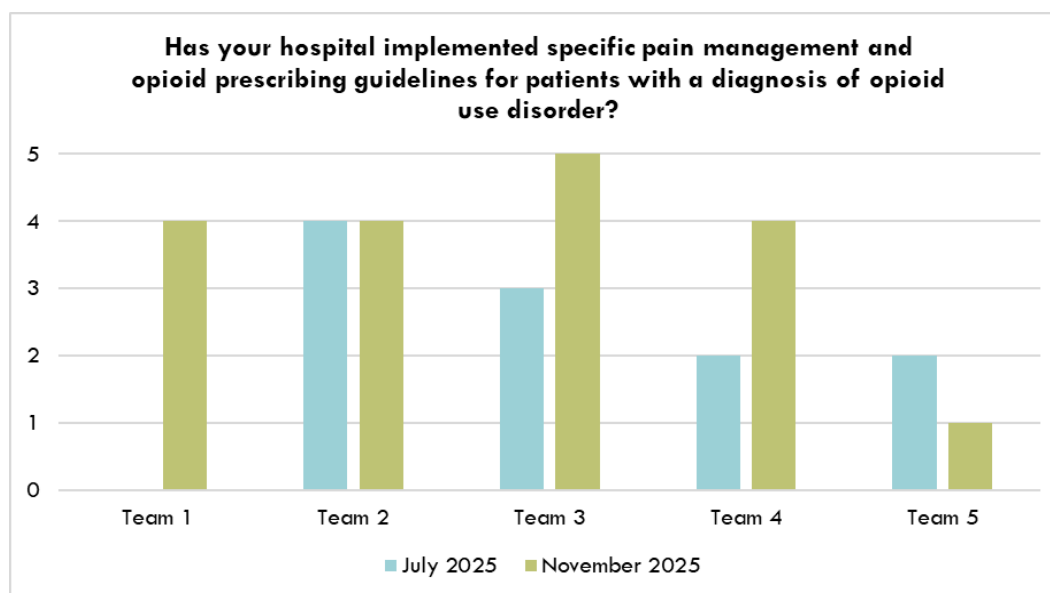
Between July 2025 and November 2025, only one team demonstrated an increase in this structural measure. Notably, the use of validated screening tools for the diagnosis of PMHC was a key area of emphasis during the initiative, particularly in the later phases. Early reporting in July may therefore reflect overestimation of implementation, with subsequent learning and clarification leading some teams to reassess their practices. This pattern suggests that as teams developed a clearer understanding of what constitutes validated screening, opportunities for increased and more accurate uptake of these tools became apparent.



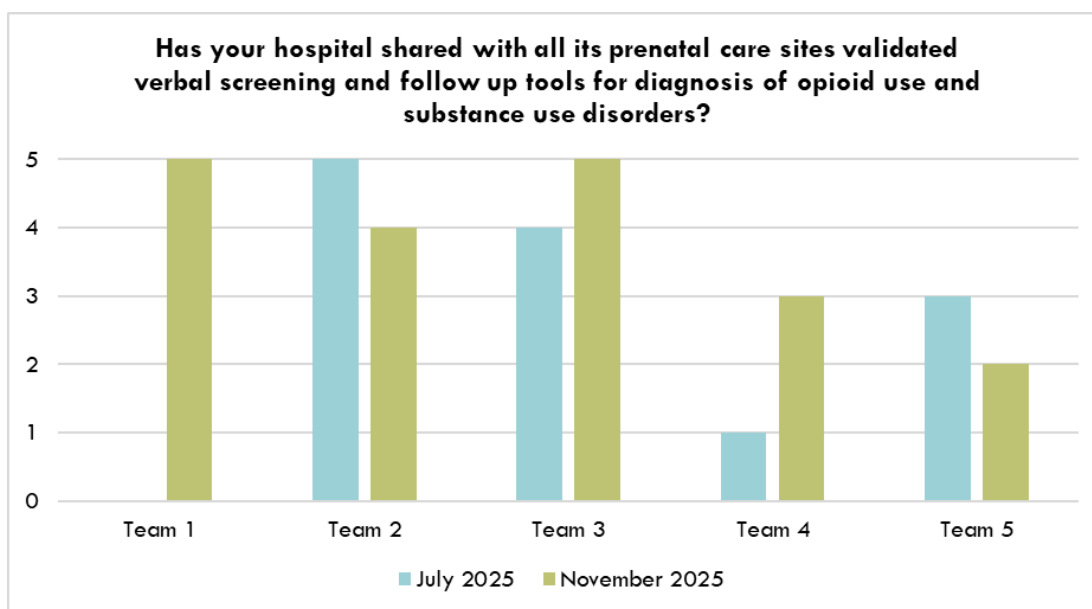
From July 2025 to November 2025, most teams demonstrated increased implementation, with notable gains among several teams. However, one team reported a decrease within the reporting period. Overall, the pattern suggests growing adoption of structured debriefing processes, alongside some variability in implementation across teams.



Between July 2025 and November 2025, two teams demonstrated stable or increased implementation, while two others reported a decline. Overall, the findings reflect variability across teams, suggesting uneven adoption of standardized opioid-limiting prescribing practices and opportunities for continued reinforcement and support in this area.



From July 2025 to November 2025, most teams reported increases or maintained stable performance, indicating progress in adopting tailored prescribing practices, though some variability across teams remains.



Two teams demonstrated increases between July 2025 and November 2025, while two teams reported decreases in this structural measure. Overall, the chart reflects variability in the sharing of validated verbal screening and follow-up tools for opioid and substance use disorders across prenatal care sites, indicating uneven implementation and opportunities to support more consistent dissemination and sustained use across participating facilities.

Summary of Results

- Downward trend in aggregate LOS - demonstrates improvement
- Smaller facilities had very high referral rates and demonstrated improvement across multiple measures
-

Conclusions/Recommendations

- Highlight how aggregate trends can be driven by larger hospitals/places with higher volume. Important to look at small multiples table to understand smaller team performance
- What practices were successful for teams? Any best practices determined?

Recommendations

In future SUD in pregnancy and postpartum quality improvement initiatives, it is recommended that the measure of percent of infants discharged to either birth parent

be used as a balancing, rather than outcome, measure. The goal of this measure is to encourage appropriate discharge, which may not always result in discharge to either birth parent. If a child is not being discharged to either birth parent, in depth case reviews are recommended to understand the variables contributing to the situation, rather than defining it as a good or poor performance measure.

Additionally, when developing measures, it is recommended to consider what metrics are meaningful for small hospitals and birthing facilities. Due to low volume of patients and adverse events in such facilities, metrics such as cases between failures may be more informative of improvement than attribute measures.

To collect more informative data regarding program experience, it is also recommended that evaluation questions are properly explained and understood by participating facilities. As teams progress through the program, their understanding of the work deepens, and they are more likely to accurately assess their progress than at the beginning of the program. Therefore, clearly defining measures and goals of a project prior to participants taking the first survey is recommended for data validity across multiple evaluations.

Notes from 12/30 Meeting with Jane:

- Goal is appropriate discharge- this could be a useful balancing measure to ensure that discharge to the parent is appropriate- add verbiage alluding to this- more important to look at these individually. List some of the variables that contribute to the data without making any conclusions about whether this is good/not good performance.
 - also in recommendations - we would recommend in depth case reviews for any child not going home/being discharged to either birth parent -
- Add to Future recommendations- would be to help small hospitals develop measures that are not attribute measures/percentages because of the low volumes. Or recommend cases between failures for the smaller hospitals
- add a recommendation to more clearly define definitions/as teams learn more about the meaning of their work they more be more accurately assessing themselves- more refined assessments come with better/more nuanced understanding

***challenge of working with both small and large hospitals**

***need to compel our teams to do the best and most complete jobs with data reporting**

Recommendations- *when looking at rare events/low numbers, percentages are not a useful measure and we will consider other measures in the future

***look at which specific teams tested which changes**

***draw attention to how well small teams did in the narrative**

Individual Team PDSAs:

United Hospital District:

Universal 5Ps screening during OB Admission

- Epic has a built 5Ps screening for all OB admissions now. Nursing staff will be required to complete.

Windom Area Health:

Developed a list of local mental health and SUD resources that is given to every postpartum patient on discharge.

- This new process subsequently increased their patients link to services. Additional languages are also in development.

Essentia Virginia:

Creation of a flowsheet in EPIC for screening for PMHC/SUD

- Continuation and strengthening of this process is ongoing.

Essentia St. Mary's:

Change from PQ-9 to EPDS in clinic

Implemented virtual inpatient consultations for PMHC

CentraCare St. Cloud:5 Ps systemwideEMR enhancements have been informed to increase compliance with screening