LEVELS OF MATERNAL CARE AMONG HOSPITALS IN FLORIDA: AN IMPLEMENTATION EVALUATION

Report Submitted to the Florida Department of Health
by

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EXECUTIVE SUMMARY

BACKGROUND

Severe Maternal Morbidity and Maternal Mortality Rates in the US and Florida

Severe maternal morbidity (SMM) and maternal mortality and are alarming public health issues in the United States (US) (Ahn et al., 2020). In the 10-year span from 2011 to 2020, SMM rates in the US increased from 69.8 to 88.2 women per 10,000 hospital deliveries (Agency for Healthcare Research and Quality [AHRQ], 2023). In 2021, the U.S. maternal mortality rate was 32.9 per 100,000 births, an increase from 23.8 per 100,000 births in 2020 (Hoyer, 2021). SMM rates in Florida increased from 68.6 to 98.4 women per 10,000 hospital deliveries from 2011-2020 (AHRQ, 2023). While the 2019 pregnancy related maternal mortality rate in Florida was slightly lower (19.5 per 100,000 births) than the national average (20.1 per 100, 1000 births), the increase in the national rate after 2019 indicates that the rates in Florida are also likely to have increased. The rates of adverse maternal health outcomes are even higher across the U.S. and in Florida when examining racial and ethnic differences.

Several system-level factors contribute to poor maternal health outcomes, including those at the patient-level (e.g., advanced maternal age, pre-pregnancy obesity, other pre-existing health conditions, cesarean delivery) (Creanga et al., 2013); community-level (e.g., lack of access to care, poverty, education, racism, housing instability, rurality) (Davis et al., 2017; Janevic et al., 2020); and medical care and health system-level (e.g., lack of standardized approaches and differences in quality of care; obstetric complications) (Davis et al., 2017; Peterson et al., 2019a).

LOMC Pilot Program in Florida

Risk-appropriate care is an approach to enhance perinatal health outcomes by providing tailored care to pregnant people and newborns in healthcare facilities that have the necessary resources and expertise to meet their specific health needs (ACOG, 2015; 2019; Desisto et al., 2023). It involves assessing each patient's risk factors and providing care that addresses their individual needs. In response to the need for risk-appropriate care, ACOG and the Society for Maternal-Fetal Medicine developed the ***Levels of Maternal Care (LOMC) framework*** to standardize care and improve maternal health outcomes (ACOG, 2015; 2019). The LOMC framework is composed of four levels (I-IV), that reflect the complexity of care required for pregnant and post-partum patients. ACOG collaborated with the Joint Commission to develop a verification process that is modelled after certification programs, with national standards and on-site survey processes (The Joint Commission, 2023).

The Florida Maternal Mortality Review Committee found that insufficient preparation by the hospitals for pregnancy-related complications was a key contributing factor to the deaths of mothers in Florida and recommended that Florida hospitals should participate in the LOMC verification program in order to provide risk appropriate care (Hernandez & Thompson, 2021). Beginning in 2022, the Florida Perinatal Quality Collaborative (FPQC), alongside the Florida

Department of Health (FDOH), piloted the Joint Commission verification program for ACOG's levels of maternal care in Florida hospitals. With funding from FDOH, the FPQC paid the first-year verification fees for any hospital that applied for the pilot program. Hospitals will pay for the second and third year verification fees. Following their commitment to the program, hospitals worked with the Joint Commission to prepare for, and subsequently schedule an on-site verification visit within 90 days of completing the LOMC application. These visits are conducted by experienced obstetric practitioners and can be completed in 1 or 2 days depending on the level of care in the hospital's application (Joint Commission, 2023). At the end of the visit hospitals receive a preliminary report of any findings. Hospitals have 60 days to submit evidence of compliance summary after which they will receive an official report that they have been verified for a particular level. The verification is good for 3 years (Joint Commission, 2023). Additionally, hospitals were required to participate in FPQC's evaluation, which occurred post-verification and included an (1) online survey and (2) interview (Florida Perinatal Quality Collaborative [FPQC], 2022).

PURPOSE

The Joint Commission verification program of ACOG's Levels of Maternal Care (LOMC) was offered as a pilot program to Florida hospitals through the FPQC. As a result, the potential impact of LOMC verification in improving maternal quality of care in the state is unknown. Therefore, the overall purpose was to conduct an implementation evaluation of the Levels of Maternal Care (LOMC) verification process for hospitals that selected to be in the pilot program. Specifically, this evaluation was comprised of the following three aims:

1. Assess hospitals' experience of LOMC verification.
2. Document factors influencing the implementation of LOMC verification program.
3. Share lessons from early adopting hospitals to guide future implementation.

METHODOLOGY

Conceptual Framework

This mixed methods implementation evaluation was guided by two implementation science frameworks: ***Exploration, Preparation, Implementation, and Sustainment (EPIS) Framework***; and the ***Consolidated Framework for Implementation Research (CFIR)***. The EPIS Framework provides a conceptual framework that assess influential factors during the implementation of a program at four key stages/phases the during the implementation process: (1) *Exploration* which involves assessing the intervention's fit and feasibility; (2) *Preparation* which focuses on preparing stakeholders, resources, and systems for implementation; (3) *Implementation* which involves executing the intervention and monitoring its fidelity and outcomes; and (4) *Sustainment* which addresses the long-term integration and maintenance of the intervention (Aarons et al., 2011). CFIR is a comprehensive framework that can be used to: assess the context of program implementation, examine implementation process and progress, and explain program findings (Damschroder et al., 2009). CFIR contains several constructs across five domains that have been found to influence implementation and outcomes: (1) *Innovation factors* (e.g.,

complexity, relative advantage); (2) *Outer setting factors* (e.g., market pressure, funding); (3) Inner Setting Factors (e.g., culture, compatibility); (4) *Individual factors* (e.g., High level leaders, implementation leads); and (5) *Implementation Process factors* (e.g., planning, teaming) (Damschroder et al., 2022a). The use of multiple frameworks made it possible to explore key implementation factors at each phase (as guided by EPIS), with CFIR constructs providing more in-depth assessment of the multidimensional factors at play during the LOMC verification process.

Instruments

A quantitative online evaluation survey was developed based on evaluation questions, EPIS phases and constructs, CFIR constructs, previous literature on LOMC verification program, and input from key stakeholders (e.g., LOMC advisory committee). A semi-structured interview guide was developed based on evaluation questions, EPIS phases and constructs, CFIR constructs, previous literature on LOMC verification program, and input from LOMC Advisory Committee. The guide included open ended questions structured under the four phases of EPIS, and additional questions on barriers, facilitators and lesson learned since these factors were expected to be present in all the four phases. A hospital/participant profile sheet was also created to collect descriptive information to describe and reflect on the diversity of experiences among the participants in the interview sample.

Procedure

Sampling and Recruitment. All 13 hospitals that applied for the LOMC verification program were recruited for the online evaluation survey. Hospital leads for the LOMC program completed the survey. Purposive sampling was employed to recruit participants for the in-depth evaluation interview based on the level of care a hospital applied for to ensure a diversity of experience. Using snowballing techniques, the hospital program lead was invited to include 2-3 key team members, such as nurse managers and nurse educators, who were instrumental in the implementation process.

Data Collection. A request to complete the online evaluation via Qualtrics was sent to the hospital LOMC verification program lead within a week of completing the verification site visit. Once the evaluation was completed, the evaluation team contacted the hospital lead to invite them and 2-3 key implementation team members for an in-depth interview. Interviews were conducted through Microsoft Teams, guided by the semi-structured in-depth interview instrument and were recorded and professionally transcribed. The evaluation was determined by the University of South Florida Institutional Review Board (IRB) as not constituting research involving human subjects as defined by DHHS and FDA regulations due to the project being an evaluation for a quality improvement initiative. Although this evaluation did not require IRB approval and oversight, the activities were still conducted in alignment with ethical principles and practices.

Data Analysis. *Quantitative data* from the evaluation surveys and hospital/participant profile sheet from the interview were analyzed in Qualtrics and Excel. The evaluation reported the

frequencies (n) and proportions (%) to describe hospitals and participants. The evaluation also reported proportions (%), means, and standard deviations for constructs measured in the survey. *Qualitative data* from the de-identified interview transcripts were uploaded into MAXQDA which is a program for qualitative data management and analysis. Deductive codes based on key research aims, EPIS phases, and CFIR constructs were used to develop the initial codebook. Two evaluation team members revised the codebook, by collaboratively coding 10% of the data, including inductive codes (those that are derived from the data), and resolving any differences by mutual agreement.

FINDINGS

Quantitative Findings

All 13 pilot hospitals in the program completed the evaluation survey. The total median number of years participants (n=13) who completed the survey had been with the current hospital was 7 years (Range 0-37). The median number of staff involved in the LOMC verification program per hospital was 24 (Range 13-51). These staff represented various departments (e.g., obstetrics, NICU, ICU, pharmacy, radiology, emergency department) and roles (e.g., high-level leadership, unit mangers, unit staff) within the hospital. All participating hospitals involved both the chief medical offer and the perinatal unit director as key leadership stakeholders in this initiative. Most hospitals (n=8) in this pilot applied for higher levels of care (levels III and IV). All but one hospital were verified for the level of care that they applied for. Interestingly, none of the hospitals sought a higher level of care than what they were already providing.

A summary of the quantitative findings is organized below according to the EPIS Framework phases (Exploration; Preparation/Implementation; and Sustainment).

Exploration Phase

Exploration phase examined **hospitals readiness**, **leadership support**, and **several key factors influencing decision to participate** in the LOMC verification.

Most hospitals reported:

- Having ***little*** (23%) or ***some*** (38.5%) **knowledge** of LOMC guidelines before applying for the verification program
- Being ***almost*** (38.5%) or ***fully*** (38.5%) **ready** to adopt the LOMC program
- Having **leadership** that was ***fully supportive*** (85%), ***involved/fully involved*** (84%), and who made LOMC verification a ***high priority*** (85%)

On average, most participants ***agreed*** or ***strongly agreed*** that the following **factors influenced their hospital's decision to participate** in the LOMC program (5-point Likert scale from 1-Strongly Disagree and 5-Strongly Agree):

- Validates current level of care provided (mean 4.85, SD 0.36)
- Improves overall quality of maternal care in Florida (mean 4.77, SD 0.42)
- Funding available through FPQC to participate in the LOMC verification process (mean 4.75, SD 0.43)

- Improves patient outcomes (mean 4.46, SD 0.75)
- Helps decide which components of maternal care are missing or needed (mean 4.38, SD 0.49)
- Increases marketability for the hospital (mean 4.31, SD 0.99)
- Gives hospital a competitive advantage (4.23, SD 0.90)
- Recommended by hospital's leadership (4.08, SD 1.21)

Preparation/Implementation Phase

Preparation/Implementation phase examined **hospital readiness**, **activities and resources used during verification process**, **program complexity**, and **other factors influencing their experience** during this phase.

Most hospitals reported:

- Already having internal guidelines that were similar to the LOMC guidelines (85%)
- Interesting, after completing the verification preparation process, participants reflected that there were **not as fully ready (23.1%) as they had originally perceived** prior to completing the verification preparation process (38.5%)

On average, most participants ***agreed*** or ***strongly agreed*** with the following statements regarding **activities and resources used** during the LOMC verification process (5-point Likert scale from 1-Strongly Disagree and 5-Strongly Agree):

- FPQC was available and responsive (mean 4.85, SD 0.36)
- The Joint Commission was available and responsive (mean 4.62, mean 0.62)
- The application process for FPQC funding was easy (mean 4.46, SD 0.63)
- The preparation that my hospital had to do was time-intensive (mean 4.15, SD 0.86)
- The Joint Commission's standards were easy to use for assessing my hospital's practices (mean 4.00, SD 0.68)

Although perceived program complexity varied across hospitals, on average, most participants did not perceive the verification process to be complex. The ***least complex*** stage of the program was **post-site visit follow up** (mean 1.46, SD 1.08) and the ***most complex*** stage was **preparation** (mean 3.15, SD 1.23).

As guided by CFIR, a variety of **system-level factors** were found to influence implementation experiences. On average, most participants ***agreed*** or ***strongly agreed*** that the following factors were important during this phase of the program (5-point Likert scale from 1-Strongly Disagree and 5-Strongly Agree):

- *Innovation*
  - LOMC is ***better*** than other available options for addressing maternal risk (mean 4.31, SD 0.61)
  - LOMC has ***robust evidence*** supporting its effectiveness (mean 4.46, SD 0.63)
- *External Setting*
  - ***Competing with and/or modelling after peer hospitals*** drives implementation of the LOMC (mean 4.0, SD 1.00)

    - ***Availability of funding from FPQC*** influenced hospital's decision to participate in LOMC (mean 4.38, SD 0.92)
    - ***Quality or benchmarking*** metrics drive implementation of LOMC (mean 4.54, SD 0.63)
- *Internal Setting*
    - ***Organization of tasks and responsibilities*** within and between individuals and teams, and general staffing levels for the LOMC verification process were adequate (mean 4.31, SD 0.82)
    - ***Resources are available*** (e.g., funding, space, materials, equipment) to implement the LOMC (mean 4.54, SD 0.75)
    - Implementing the LOMC is ***aligned with the overarching commitment,***
    - ***purpose, or goals*** of our hospital (mean 4.92, SD 0.27)
- *Individual*
    - ***Individuals of high level of authority*** in our hospital, including C-suite members, ***support*** the LOMC process (mean 4.85, SD 0.53)
    - Hospital ***staff are committed*** to implementing LOMC (mean 4.85, SD 0.36)
    - ***Individuals of moderate level of authority***, such as department heads, ***support*** LOMC process (mean 4.92, SD 0.27)
    - ***Implementation teams leaders were available*** (i.e., individuals who collaborate with and support LOMC verification process) (mean 5.00, SD 0,0)
- *Implementation Process*
    - Our hospital was able to ***coordinate and collaborate*** to implement LOMC (mean 4.85, SD 0.36)
    - Our hospital was able to ***plan in advance*** to identify roles and responsibilities, outline specific steps and milestones, and define goals and measures for implementation success (mean 4.85, SD 0.36)
    - Our hospital was able to ***attract and encourage participation*** in implementing LOMC (mean 4.85, SD 0.36)

<u>Sustainment Phase</u>

Considering the future, most hospitals reported that they:

- Were committed to **reconsidering reverification in 3 years** (62%)
- Would **recommend other peer hospitals to apply for the LOMC verification** (85%)

However, only half (54%) indicated that they would **consider *changing* their current level of care**.

Suggestions for Future Implementation

Participants provided the following suggestions and recommendations for hospitals seeking to adopt LOMC verification.

1. **Conduct a gap analysis.**
    - Assess your hospital capabilities, discuss with leadership, and only apply for levels of care confirmed by leadership.
2. **Preparation starts before application.**
    - Have everything ready before the application, you will do the bulk of the work before the site visit and turnaround time is quick.
    - Create an ongoing repository shared with all team members outlining all activities, tasks, responsibilities, and timelines.
    - Have a point person to coordinate all verification activities.
3. **Obtain buy in from everyone (staff, leadership, other departments).**
    - Encourage and engage staff to commit to LOMC processes and standards.
    - Obtain buy in from all ancillary departments and have them involved in the process.
    - Check-in with the implementation team frequently.
    - It's a lot of work, but if the team works together, you will be successful.
4. **Follow the Joint Commission Guide.**
    - Follow the guide step by step to help you prepare your process.
    - Use the guide to develop presentations for site visit.
5. **Talk to other hospitals who have gone through the experiences.**
    - Set up webinars with early adopters to speak to your team on how to prepare.
6. **Make quality maternal care a habit.**
    - Set high quality standards as normal practice.

Qualitative Findings

Nine hospitals participated in the interviews. A total of 20 participants participated across the 9 interviews (1 per hospital): 5 nurse managers, 13 OB services directors, (nursing, quality, perinatal, women's health, and MFM), 1 perinatal nurse educator, and 1 associate vice president for women's health.

A summary of qualitative findings is organized below based on themes that emerged at the different stages of the program according to EPIS framework: Exploration (decision to participate); Preparation (*preparation for verification*); Implementation (*site visit experience*); and Sustainment (*post -site visit experience*).

Decision to Participate

Key factors influencing the decision-making process included having a ***hospital champion,*** *quality improvement* ***(QI) experience,*** wanting to ***validate the level of care*** already being provided and other motivations to participate such as ***role modelling exemplary service*** as noted by one participant:

"Hey, we have to do this, this is really important to verify that we really do have all the services in place needed to provide the level of care we think we're providing and be a role model and set that example."

Preparation for Verification

Several activities and responsibilities were undertaken during the preparation phase for the LOMC verification. The main components included ***(1) gap analysis***; ***(2) team formation***; ***(3) readiness for site visit***; ***(4) collaboration***; and the use of available ***(5) resources***. Beyond getting ready for the site visit, the preparation process helped hospitals exhaustively review and extensively learn about all their policies and processes related to maternal care. As one participant mentioned, the visit by Joint Commission was an advantage to maternal care team.

"We got to say, "Joint Commission's coming, so we need this. People were like, "Okay. We're doing it," and we we're like, "Oh, this is all we had to say when we started." That was good. There was a lot of stuff on the back end that we had sitting there waiting in process, but it's a hospital and there are other departments that take priority, and other things and projects, and resources are limited, and particularly so since post-COVID. It's not just nursing that's having a shortage, all other areas in healthcare are having shortages, IT have issues. I think that piece really having the word Joint Commission behind us, expedited a lot of stuff, were to our benefit."

Site Visit Experience

The site visit was a ***positive experience*** and ***opportunity to showcase hospitals' quality of care***. Most participants also viewed the site visit as an opportunity to get an external assessment and identify ***opportunities to continue improving*** maternal care.

"I might have a different story if it didn't go well. [chuckles] I felt like the nurses were so supportive of it too. You noticed nobody ran as soon as we came on the floor. Generally, when joint commission comes, people go scatter. Nobody did that. I think because they knew that they weren't trying to catch up anything. They were trying to see what great care we have and so they were happy to share."

Post-Site Visit Experience

Once the site visit was completed, hospitals ***revisited their policies and procedures*** based on the recommendations of the Joint Commission surveyor. Hospitals ***addressed any gaps*** identified during the visit and ***made future plans*** considering their verified status. On reflection, the verification process invoked a sense of pride and accomplishment as participants were able to really take stock of all that they do to ensure quality maternal care.

"You have a sense of pride in what you do. I had a huge sense of pride in what I did, but when I heard the stories or the data that were put together by that team and I saw what we looked like sitting in a chair, just listening, I sat up straighter. I was like, "Our team needs to know what we do." How it looked, when you put it that way, it was very

affirming for me. I was like, "People need to know this. Our team needs to know this." I said, "Public need to know, but our team needs to know this."

"It was. It was also a proud moment too. It was a proud moment of seeing that we do have what we need. We learned a lot now. Things we did learn, we did learn during the process, but it was like, we do have what it takes to give great care to our community for moms and babies."

DISCUSSION

This evaluation employed a mixed methods approach to examine the LOMC verification program experiences among early adopting hospitals in Florida. Findings contribute to the limited current knowledge on LOMC designation as a strategy to improve the quality of maternal care. Having an established QI culture, availability of internal resources and personnel, and external structural support were noted as key pieces for implementation success. Given the relative novelty of the ACOG levels of care administered by the Joint Commission, uncertainty on the structure of the process was a frequently mentioned challenge. Furthermore because of the limited certification focus on maternal care, participants strongly recommended that all Florida hospitals should get verified and had already begun promoting the program in network hospitals. A summary of the strengths, early successes, barriers and future recommendations are provided below.

Strengths and Early Successes Experienced During Implementation

Based on triangulating findings related to hospitals' experiences through the evaluation surveys and interviews, several factors were identified related to the strengths and early successes experienced during the LOMC verification (Table 13).

Table 13. Strengths and Early Successes During Implementation

Strengths/ Early Successes	Description
Leadership Support	• Leadership supported the maternal care teams to go for the LOMC verification and provided the necessary support. • Leadership showed their commitment by being present on the day of the Joint Commission site visit.
Mission Alignment	• The participating hospitals realized that the Joint Commission had the same mission as their own hospital, which is to provide the best care to mothers and babies. • Hospitals had an understanding that this was a validation of the quality work that they were already doing.

Hospital Champion	• Having a person from the maternal care unit lead the LOMC verification preparation was a huge factor in the success of this initiative. • In many hospitals, someone from the maternal care unit took the initiative to convince the leadership for getting LOMC verified.
Motivated Staff	• Staff involved in direct maternal care played a significant role in the success of LOMC verification, as they were able to showcase their skills and expertise in patient care to the surveyors. • Staff were motivated to be part of an initiative that they could be proud.
Involvement of Ancillary Department	• The Joint Commission LOMC verification is based on holistic maternal care provision. Hence, ancillary departments such as emergency, blood bank, diagnostics, respiratory, etc., must be prepared for the visit.
Gap Analysis	• Conducting a detailed formal gap analysis of all the policies and procedures pertaining to maternal care is very helpful to prepare for the LOMC verification site visit.
Support of the FPQC	• Funding by the FPQC for the first round of the LOMC verification was a boost for participating hospitals. • FPQC's support through the LOMC initiative helped in understanding the verification process played an important role. • Hospitals with previous connections with FPQC felt comfortable applying for the LOMC verification.
Support of the Joint Commission	• Having a designated person from the Joint Commission to help with application process was helpful for the hospitals.

Key Barriers and Future Recommendations

Based on triangulating findings related to hospitals' experiences through the evaluation surveys and interviews, key barriers and corresponding recommendations are provided in Table 14.

Table 14. Recommendations to address key barriers

Key Barriers	Future Recommendations
Access to Providers' Credentials	• Keep the credentials of all the concerned authorities ready along with any certifications received by them.
Limited Internal Support	• Involve leadership and other key stakeholders from the beginning. • Involve the ancillary departments and prepare them with the same vigor as the maternal care unit. • Make a presentation on the LOMC verification and its benefits to get their buy-in.

Staff Turnover	• Involve the staff that can be present at the time of LOMC verification site visit.
Burden on Staff	• Form a larger team and delegate tasks. • Relieve anxieties by informing them that this is the validation of work they do on an everyday basis.
Technology Issues	• Involve the IT department from the beginning of the process. • Have a designated IT person for the day of the Joint Commission site visit. • Understand beforehand that uploading documents is a relatively lengthy process. • Inform the signing authority beforehand that they would need to sign the application before submission.
Limited Information	• Participate in the information sessions by FPQC and the Joint Commission. • Contact other hospitals that have undergone the LOMC verification. • Refer to FPQC's evaluation (this technical report) to learn from the experiences shared by participants.
Timeline	• Understand that after the submission of the application, the Joint Commission site visit happens in 90 days, hence prepare beforehand. • Keep track of all the discussions and processes conducted for verification preparation as meeting minutes to avoid repetition of activities.

Limitations and Strengths

Although the mixed methods approach of this implementation evaluation allowed for many aspects of the LOMC verification process to be examined among the pilot sample in Florida, limitations must be considered. First, findings may not be representative of all hospital stakeholders who contributed towards LOMC verification as only a few representatives from each hospital shared their experiences. Second, hospitals had started planning to participate several months prior to the time of the evaluation and thus there is a possibility of recall bias given the busy and dynamic nature of the hospital setting and with other priorities and initiatives. Third, most hospitals were part of a network, were a larger hospital, and/or were applying for a higher level of care; thus, findings may not be generalizable to smaller hospitals or those hospitals who desire a lower level of care designation. Fourth, given the relationship of the evaluation team with FPQC, social desirability by participants could have led to information bias.

Nonetheless, there are several strengths of this evaluation. This evaluation employed mixed methods and was guided by two prominent implementation science frameworks. In addition, the evaluation survey and interviews were administered online (via Qualtrics and Microsoft Teams), which may have facilitated comfort and convenience among hospital participants. Lastly, the evaluation team had the opportunity to observe several verification site visits. Although observational data was not collected, this experience provided them with critical context and a deeper understanding of the process which assisted in designing evaluation instruments and when interpretating evaluation findings.

Conclusion

This implementation evaluation examined the experiences of hospitals that participated in the pilot LOMC verification program in Florida. This report documented the factors influencing hospitals' decision to participate in the verification, and facilitators and barriers experienced during all phases of the process. This evaluation also elicited lessons learned and developed recommendations to guide future iterations of the LOMC verification program implementation. Overall, the evaluation found that although funding from FPQC played a significant role in hospitals' decision to participate, supportive hospital leadership, having an in-house champion, willingness to get validation for quality work, and experience with QI initiatives played significant roles in applying for the LOMC verification. Many participants agreed that more information from the Joint Commission about the application and timelines would help hospitals to prepare for the verification. Having a formal team, conducting a gap analysis to review policies and procedures, and involvement of the ancillary departments were identified as key factors in the success of LOMC verification. Hospitals appreciated the knowledgeable and amiable nature of the Joint Commission surveyors. These findings may help future hospitals in preparing for the LOMC verification and provide elements for the Joint Commission and the FPQC to consider in their roles in this process. Ultimately, the LOMC verification should lead to improvement in maternal healthcare delivery, including preventing severe maternal morbidity and mortality across the state of Florida.

INTRODUCTION

Severe Maternal Morbidity and Maternal Mortality Rates in the US

Severe maternal morbidity (SMM) and maternal mortality are *alarming* public health issues in the United States (US) (Ahn et al., 2020). SMM is defined as an unintended outcome during labor and childbirth that impact the health of woman significantly both in the short and long term (American College of Obstetrics and Gynecology [ACOG], 2016). In the 10-year span from 2011 to 2020, SMM rates in the US increased from 69.8 to 88.2 women per 10,000 hospital deliveries (Agency for Healthcare Research and Quality [AHRQ], 2023). Moreover, the US maternal mortality rate in 2021 was 32.9 per 100,000 births, an increase from 23.8 and 20.1 per 100,000 births in 2020 and 2019, respectively (Hoyert, 2021). Among all developed countries the US has the highest rate of maternal mortality (United Nations Population Fund [UNFPA], 2023).

The rates of adverse maternal health outcomes are even higher when examining racial and ethnic differences. In a multi-state study, non-Hispanic black and American Indian Alaskan Native women had SMM rates that were 2.1 and 1.7 higher when compared to White women (Creanga et al., 2014). Non-Hispanic black women were 2.6 times more likely to die from pregnancy related complications compared to non-Hispanic white women in 2021 (Hoyert, 2021). These rates are unacceptable given that maternal mortality review committees (MMRC) have found more than two thirds of maternal deaths to be preventable (Davis et al., 2019).

SMM rates in Florida increased from 68.6 to 98.4 women per 10,000 hospital deliveries from 2011-2020 (AHRQ, 2023). While the 2019 pregnancy related maternal mortality rate in Florida was slightly lower (19.5 per 100,000 births) than the national average (20.1 per 100, 1000 births), the increase in the national rate after 2019 indicates that the rates in Florida are also likely to have increased. Differences in racial and ethnic maternal outcomes were also present in Florida. SMM rate for non-Hispanic black women in Florida was 1.7 times higher than non-Hispanic white women (Hernandez & Watson, 2018) and black women were two times more likely to die from pregnancy related complications compared to white women (Hernandez & Thompson, 2021).

Factors Contributing to SMM and Maternal Mortality Rates

Several factors contribute to poor maternal health outcomes at the individual patient level, community level, and health system level. At the patient level, indicators such as advanced maternal age, pre-pregnancy obesity, other pre-existing health conditions, and cesarean delivery have been shown to play a role in the increasing rate of poor maternal health outcomes (Creanga et al., 2013). At the community level, race and racism, lack of access to care, housing instability, poverty, education, and rurality have been associated with poor maternal health outcomes (Davis et al., 2017; Janevic et al., 2020).

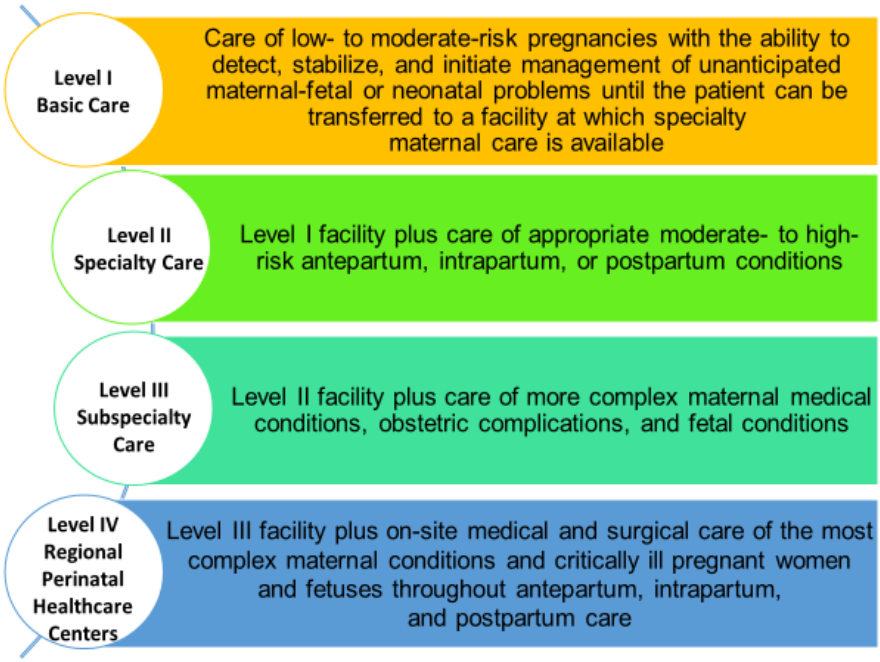
The leading medical and care-related causes of poor maternal outcomes are obstetric complications, infections, and cardiovascular disease (Peterson et al., 2019a). Lack of standardized approaches to care during the preconception, delivery and post-partum periods lead

to differences in quality of care received based on provider and system factors (Davis et al., 2017). To provide appropriate quality of maternal care during obstetric emergencies and reduce preventable adverse health outcomes, 13 maternal mortality review committees recommended establishing standardized levels of maternal care to ensure that hospitals were prepared, equipped, and best matched to handle the needs of the patients that they receive (Peterson et al., 2019b)

Risk-Appropriate Care to Address SSM and Maternal Mortality Rates

Risk-appropriate care is an approach to enhance perinatal health outcomes by providing tailored care to pregnant people and newborns in healthcare facilities that have the necessary resources and expertise to meet their specific health needs (ACOG, 2015; 2019; Desisto et al., 2023). It involves assessing each patient's risk factors and providing care that addresses their individual needs. By providing risk-appropriate care, healthcare providers can reduce maternal mortality, morbidity, and other adverse outcomes associated with pregnancy and childbirth. A scoping review by Goodarzi et al., (2020) pointed out that risk-appropriate care could only be achieved when systems of care were standardized in response to the risk status of pregnant patients, such that they provide *optimal care*, at the *right time*, and from the *appropriate personnel*. Additionally, the review emphasized that one of the major purposes of risk-appropriate care was to use scarce resources judiciously.

In response to the need for risk-appropriate care, ACOG and the Society for Maternal-Fetal Medicine developed the Levels of Maternal Care (LOMC) framework to standardize care and improve maternal health outcomes (ACOG, 2015; 2019). The framework is composed of four levels (I-IV), that reflect the complexity of care required for pregnant and post-partum patients (Figure 1). Levels I and II facilities provide care for low to moderate risk pregnant patients. However, if the pregnancy or delivery get complicated, patients can be transferred to Levels III and IV facilities which act as regional centers for providing intensive care to women with complicated pregnancies. These regional centers also provide training and mentoring support to lower-level facilities. To be able to provide all the comprehensive services outlined, Levels III and IV facilities must be equipped with adequate human resources, infrastructures, and mechanisms. A study conducted in Ohio reported that maternal deaths could be prevented when pregnant patients were transported in a timely fashion to higher levels of care in case of complications (Desisto et al., 2021). ACOG collaborated with the Joint Commission to develop a verification process that is modelled after certification programs, with national standards and on-site survey processes (The Joint Commission, 2023).



Source: American College of Obstetrics and Gynecology, 2019

Figure 1. Levels of Maternal Care

Levels of Maternal Care (LOMC) Pilot Program in Florida

Florida Maternal Mortality Review Committee found that insufficient preparation by the hospitals for pregnancy-related complications was a key contributing factor to the deaths of mothers in Florida (Hernandez & Thompson, 2021). Thus, the Florida Maternal Mortality Review Committee recommended that Florida hospitals should participate in the Levels of Maternal Care (LOMC) verification program in order to provide risk appropriate care (Hernandez & Thompson, 2021). Beginning in 2022, the Florida Perinatal Quality Collaborative (FPQC), alongside the Florida Department of Health (FDOH), piloted the Joint Commission verification program for ACOG's levels of maternal care in Florida hospitals.

With funding from FDOH, the FPQC paid the site visit and the first-year verification fees for any hospital that applied for the pilot program. Hospitals will pay for the second and third year verification fees. Following their commitment to the program, hospitals worked with the Joint Commission to prepare for, and subsequently schedule an on-site verification within 90 days of completing the LOMC application. Additionally, hospitals were required to participate in FPQC's evaluation, which occurred post-verification and included an (1) online survey and (2) interview (Florida Perinatal Quality Collaborative [FPQC], 2022). A flow chart of the verification process in Florida is shown in Figure 2.

Joint Commission Verification Site Visit

The Joint Commission verification site visit has four goals: (1) assess the hospitals policies and procedures related to maternal care; (2) assess compliance with hospitals policies and procedures in provision of care; (3) assess hospitals performance improvement plan; and (4) share knowledge and evidence-based practices. These visits are conducted by experienced obstetric

practitioners and can be completed in 1 or 2 days depending on the level of care in the hospital's application (Joint Commission, 2023)

To prepare for the site visit, the Joint Commission provides the hospitals with a manual of standards to help them review and ensure that their standards and processes meet the required standard of the level that they are applying for. During the site visit, the Joint Commission surveyor provides feedback, offer suggestions, and education for improvement. At the end of the visit hospitals receive a preliminary report of any findings. Hospitals have 60 days to submit evidence of compliance summary after which they receive an official report that they have been verified for a particular level. The verification is good for 3 years (Joint Commission, 2023).

Figure 2. Flowchart of LOMC verification and evaluation process

PURPOSE

The Joint Commission verification program of ACOG's Levels of Maternal Care (LOMC) was offered as a pilot program to Florida hospitals through the FPQC. Given that this is a new innovation in Florida, the implementation experience and promise of LOMC verification in improving maternal quality of care in the state is unknown. Therefore, the overall purpose was to conduct an implementation evaluation of the Levels of Maternal Care (LOMC) verification process for hospitals that select to be in the pilot program. Specifically, this evaluation was comprised of the following three aims:

1. Assess the hospitals' experience of LOMC verification.
2. Document factors influencing the implementation of LOMC verification program.
3. Share lessons from early adopting hospitals to guide future implementation.

METHODOLOGY

Conceptual Frameworks

This evaluation was guided by two implementation science frameworks: (1) **Exploration, Preparation, Implementation, and Sustainment (EPIS) Framework;** and (2) **Consolidated Framework for Implementation Research (CFIR)**.

The **Exploration, Preparation, Implementation, and Sustainment (EPIS)** framework provides a conceptual framework that assess influential factors during the implementation of a program at key stages/phases the during the implementation process (Aarons et al., 2011).The model encompasses four key phases: (1) ***Exploration*** which involves assessing the intervention's fit and feasibility; (2) ***Preparation*** which focuses on preparing stakeholders, resources, and systems for implementation; **(3)** ***Implementation*** which involves executing the intervention and monitoring its fidelity and outcomes; and (4) ***Sustainment*** which addresses the long-term integration and maintenance of the intervention (Aarons et al., 2011). This model has been shown to have broad applicability in evaluating implementation processes and outcomes in health settings (Moulin et al., 2019). Structuring the evaluation around these key phases created a logical structure that facilitated a clear and organized approach to data collection and analysis.

The **Consolidated Framework for Implementation Research (CFIR)** is a comprehensive framework that can be used to: assess the context of program implementation; examine implementation process and progress; and explain program findings (Damschroder et al., 2009) The updated CFIR framework contains (1) several constructs across five domains that have been found to influence implementation programs, and (2) an Outcomes Addendum that can help researchers assess outcomes associated with implementation programs (Damschroder et al., 2022a, 2022b). The five domains are: (1) ***Innovation factors*** (e.g., complexity, relative advantage); (2) ***Outer setting*** (e.g., market pressure, funding); (3) ***Inner Setting factors*** (e.g., culture, compatibility); (4) ***Individuals factors*** (e.g., high-level leaders, implementation leads); and (5) ***Implementation Process factors*** (e.g., planning, teaming) (Damschroder et al., 2022a).

The ***CFIR Outcomes Addendum*** can be used when an outcome is anticipated (e.g., adoptability) or when there is an actual outcome (e.g., adoption). (Damschroder et al., 2022b). The evaluation team explored all available CFIR constructs and selected those that fit with the LOMC verification program. Figure 3 illustrates the conceptual framework that integrates EPIS and CFIR which permitted exploration of key implementation factors at each phase of implementation.

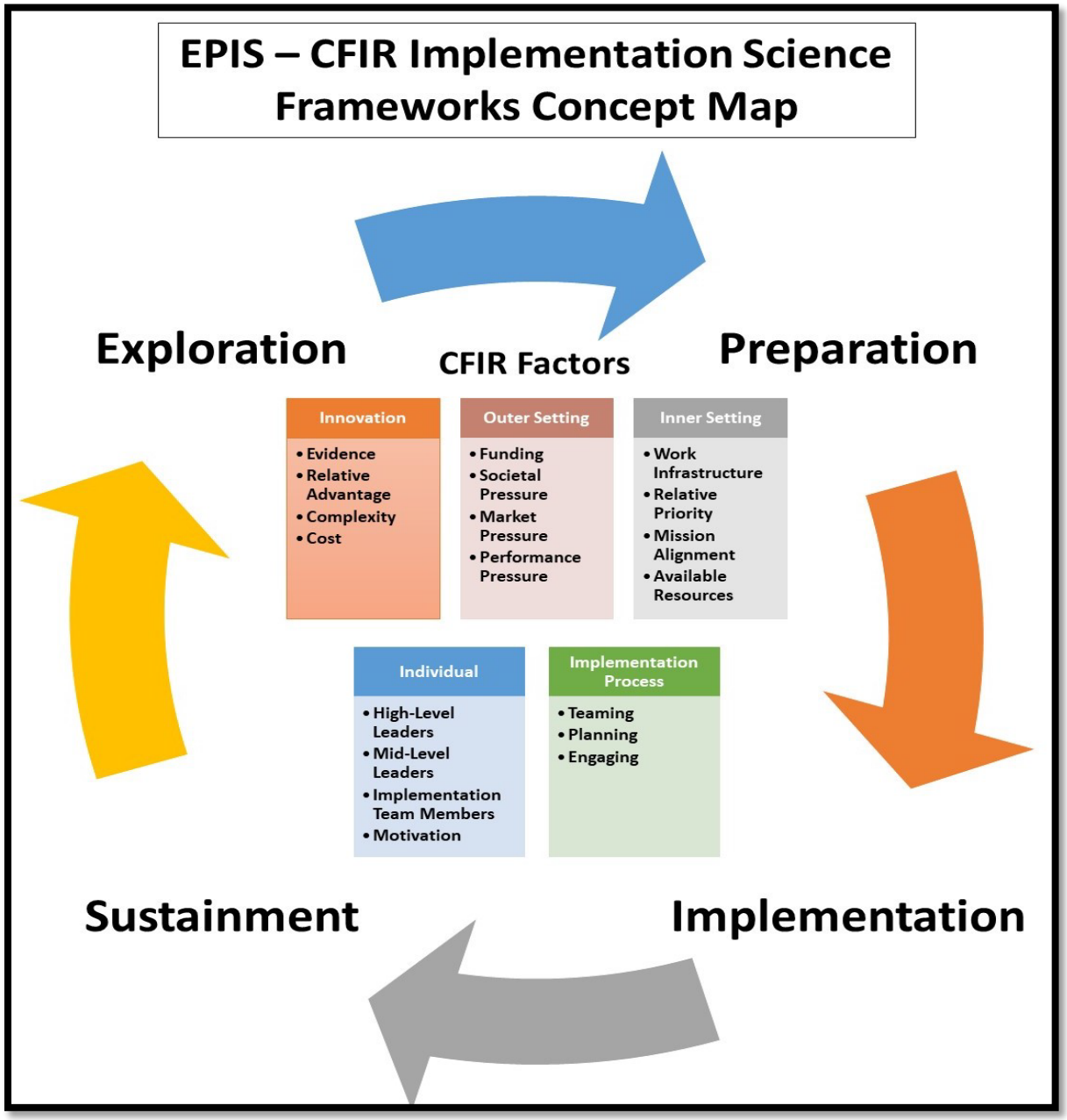


Figure 3. Conceptual Framework for the evaluation of the LOMC Verification process as guided by EPIS and CFIR.

Sampling and Recruitment

All 13 hospitals that applied for the LOMC verification pilot program were recruited for the online evaluation survey. Hospital leads for the LOMC program completed the survey. Purposive sampling was employed to recruit participants for the in-depth evaluation interview based on the level of care a hospital applied for to ensure a diversity of experience. Using snowballing techniques, the hospital program lead was invited to include 2-3 key team members, such as nurse managers and nurse educators, who were instrumental in the implementation process. It was estimated that between 9-13 hospitals would be recruited to participate in the interviews based on when they completed the verification process given the timeline of this project.

Instruments

Online Evaluation Survey

A quantitative online survey was developed based on evaluation questions, EPIS phases and constructs, CFIR constructs, previous literature on LOMC verification program, and input from key stakeholders (e.g., LOMC advisory committee). The evaluation team sent a survey listing all the identified key constructs, their description, and the corresponding response options (5-point Likert scales) to the Advisory committee to examine their importance and relevance to the LOMC verification program. The revised survey which included feedback from the committee was piloted with two participants consulting with FPQC who have previously held hospital positions similar to the survey participants. The final survey incorporated feedback from pilot test and advisory board to align with the objectives of the evaluation and was administered online through Qualtrics.

Semi-Structured Interview Guide

A semi-structured interview guide was developed based on evaluation questions, EPIS phases and constructs, CFIR constructs, previous literature on LOMC verification program, and input from LOMC Advisory Committee. The guide included open ended questions structured under the four phases of EPIS, and additional questions on barriers, facilitators and lesson learned since these factors were expected to be present in all the four phases. Based on the feedback from advisory committee and in alignment with the objectives of the evaluation, a final interview guide was developed.

Hospital/Participant Profile Sheet

A participant profile sheet was created to collect descriptive information such as the number of years a participant had been at that hospital and their role with the hospital. The information collected was used to describe and reflect on the diversity of experiences among the participants in this sample of pilot hospitals implementing the LOMC program. The hospital's descriptive information included their risk appropriate care needs, key staff involved in the process, level of care the applied for, and the level of care they received after their verification.

Procedure

A request to complete the online evaluation via Qualtrics was sent to the hospital LOMC verification program lead within a week of completing the verification site visit. Because the

online evaluation was de-identified, participants completed a separate survey to help with the completion checks by the evaluation team. Once the evaluation was completed, the evaluation team contacted the hospital lead to invite them and 2 -3 key implementation team members for an in-depth interview. The semi-structured in-depth interview guide facilitated the interviews which were conducted through Microsoft Teams. At the beginning of the discussion, descriptive information of the interview participant(s) such as role with the hospital, and role during the LOMC verification was collected through notes taken by the evaluation team members. All interviews were audio-recorded and transcribed using professional transcription services to ensure accurate and comprehensive documentation of the LOMC verification experience. Recording began after collecting the descriptive information to ensure that the interviews were kept de-identified. The evaluation was determined by the University of South Florida Institutional Review Board (IRB) as not constituting research involving human subjects as defined by DHHS and FDA regulations due to the project being an evaluation for a quality improvement initiative. Although this evaluation did not require IRB approval and oversight, the activities were still conducted in alignment with ethical principles and practices.

Data Analysis

Data from the quantitative interview was analyzed in Qualtrics and Excel. The evaluation reported the frequencies (n) and proportions (%) to describe hospitals and participants. The evaluation also reported proportions (%), means, and standard deviations for constructs measured in the survey.

De-identified transcripts of the interviews were uploaded into MAXQDA which is a program for qualitative data management and analysis. Deductive codes based on key research aims, EPIS phases, and CFIR constructs were used to develop the initial codebook. Two evaluation team members revised the codebook, by collaboratively coding 10% of the data, including inductive codes (those that are derived from the data), and resolved any differences by mutual agreement.

FINDINGS

QUANTITATIVE FINDINGS

Respondent and Hospital Characteristics

A total of 13 participants from each of the 13 pilot hospitals in the program were included. The total median number of years participants had been with the current hospital was 7 years (Range 0-37). All participating hospitals involved both the chief medical offer and the perinatal unit director as key leadership stakeholders in this initiative. The median number of staff involved in the LOMC verification program per hospital was 24 (range 13-51); this median does not include one hospital who indicated that they included 263 staff members. A variety of key staff that had significant roles in implementing the program are shown in Figure 4.

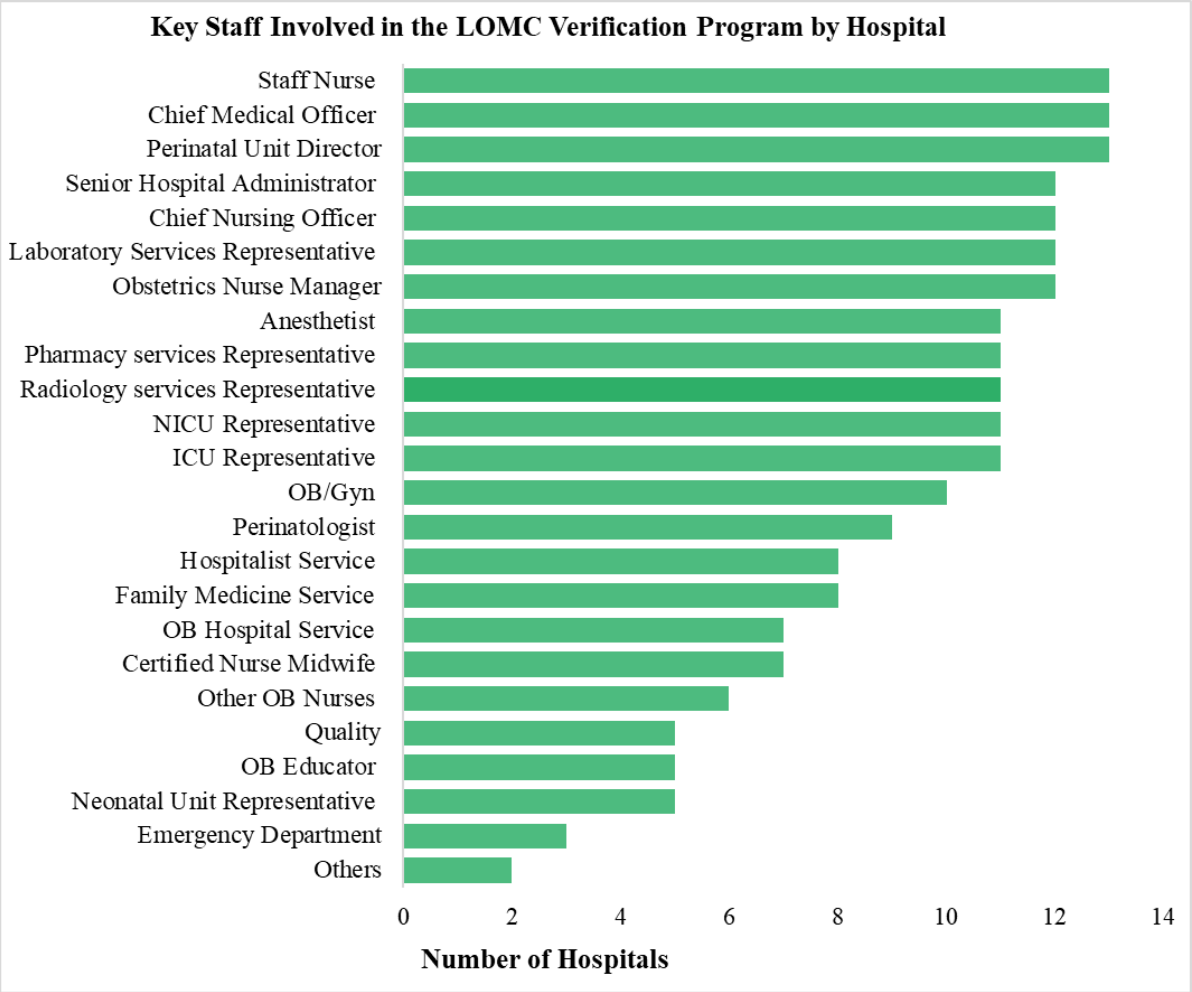


Figure 4. Key Staff Involved in the LOMC Verification Program

Most hospitals indicated that they already had a quality improvement process specific to levels of care (77%) before signing up for the verification. Slightly more than half of the hospitals were seeking maternal levels of care for the first time (54%) while the remaining hospitals signed up for the verification to validate the level of care that they were already providing. Most hospitals (n=8) applied for higher levels of care (levels III and IV). All but one hospital were verified for the level of care they indicated in their application. Interestingly, none of the hospitals sought a higher level of care than what they were already providing.

Exploration Phase

General Overview: ***Hospital's readiness***, ***leadership support*** and several key ***factors influencing decision to participate*** in the LOMC verification were salient during the exploration phase.

Participant Readiness and Knowledge of LOMC

Most hospitals reported having little (23%) or some (38.5%) ***knowledge*** of LOMC guidelines before applying for the verification program. Hospitals believed they were almost (38.5%) or fully (38.5%) ***ready*** to adopt the LOMC program.

Hospital Leadership Support and Involvement

Hospital leadership support and involvement, and prioritization of LOMC were examined. Once the decision was made to participate, ***hospital leadership was fully supportive*** (85%), ***involved/fully involved*** (84%) in the process, and made a LOMC verification a ***high priority*** (85%) compared to other priorities at their hospital.

Decision to Participate

Hospitals considered several factors before making the decision to commit the LOMC verification program. Table 1 shows the level of influence that key factors had during the exploration phase as guided by EPIS and CFIR constructs. Level of influence was measured on a 5-point scale from Strongly Disagree to Strongly Agree. On average, most hospitals agreed that the LOMC verification would ***validate the current level of care*** their hospital provides (mean 4.85, SD 0.36), and considered that verification would ***improve the quality of maternal care in Florida*** (mean 4.77, SD 0.42). The ***availability of funding from FPQC*** was also a major influence in the decision to adopt LOMC verification (mean 4.73 SD 0.45). On the other hand, participants did not believe there was *peer pressure* to adopt LOMC verification (mean 2.46, SD 1.39), or that LOMC designation would be *profitable to their hospital* (mean 2.92, SD 0.73).

Table 1. Mean and Standard Deviation of Factors Influencing LOMC Verification Participation

Factors Influencing Decision to Participate in LOMC Verification	Mean	SD
1. There is peer pressure to adopt LOMC designation.	2.46	1.39
2. The LOMC designation will be profitable for our hospital.	2.92	0.73
3. The LOMC designation will reduce hospital-associated costs.	3.08	0.83
4. The LOMC designation will reduce patient-associated costs.*	3.08	0.64
5. The LOMC designation is recommended by my hospital's leadership.	4.08	1.21
6. The LOMC designation will give our hospital a competitive advantage.	4.23	0.9
7. The LOMC designation will increase marketability for our hospital.	4.31	0.99
8. The LOMC designation will help us decide which components of maternal care are missing or needed.	4.38	0.49
9. The LOMC designation will improve patient outcomes.	4.46	0.75
10. There was funding available through FPQC to participate in the LOMC verification process.*	4.75	0.43
11. The LOMC designation will improve overall quality of maternal care in Florida.	4.77	0.42
12. The LOMC designation will validate the current level of care that we provide.	4.85	0.36

Note * Missing response from one hospital.

Preparation and Implementation Phase

General Overview: During the preparation and implementation for the LOMC verification program, there were several key factors important for the success of the process. These factors are categorized into the following: (1) ***Hospital readiness assessment;*** (2) ***Verification activities and resources***; and (3) ***Program complexity***.

Hospital Readiness Assessment

Most hospitals (85%) reported ***already having internal guidelines*** that were very similar to the LOMC guidelines. The remaining hospitals either had different guidelines or staff were not aware if the hospital had any internal guidelines similar to LOMC. As shown in Figure 5, *after completing the verification preparation process*, participants indicated that they were ***not as fully ready*** (23.1%) as they had *originally* perceived (38.5%).

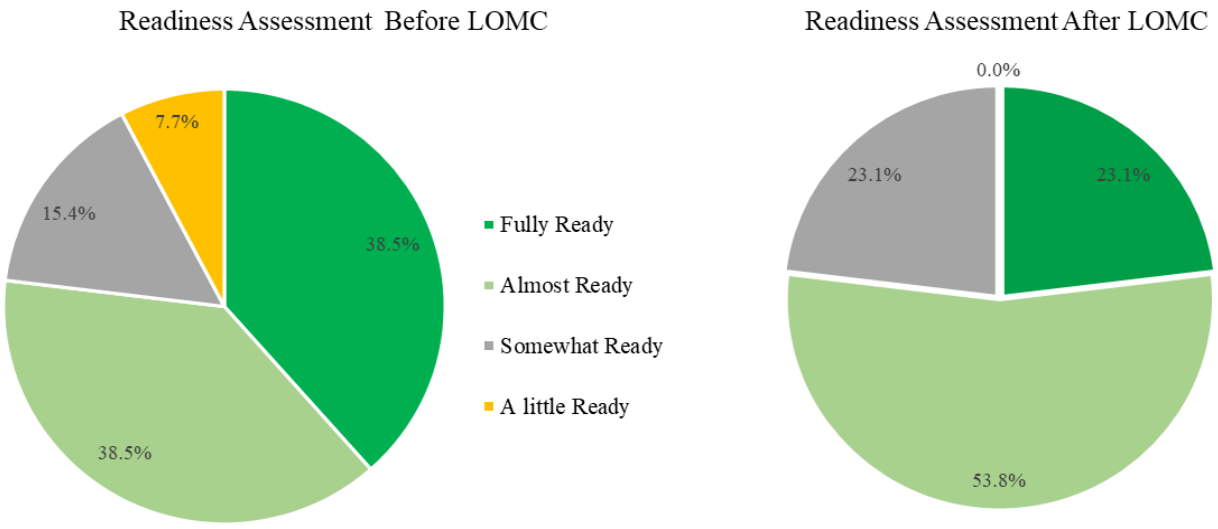


Figure 5. Participants Readiness Assessment Before and After the LOMC Verification

Verification Activities and Resources

Participants indicated their agreement on a 5-point Likert scale from 1- Strongly Disagree to 5- Strongly Agree regarding a variety of activities and resources they experienced during the verification process. Overall, hospitals agreed that the ***FPQC*** (mean 4.85, SD 0.36) and the ***Joint Commission*** (mean 4.62, SD 0.62) ***were available*** for them during the process. However, hospitals indicated that the Joint Commission website had room for improvement when considering ease of application (mean 3.23, SD 0.80). Nonetheless, most hospitals disagreed with the statement that they had to make a lot of changes to their current polices or procedures (mean 2.31, SD 1.14). See Table 2.

Table 2. Major Activities and Resources During LOMC Verification Process

	Verification Activity/Resource	Mean	SD
1.	My hospital had to do a lot of changes (e.g., revisions to, or developments of policies, procedures & guidelines, staffing).	2.31	1.14
2.	The application process for the site visit using the Joint Commission's web portal was easy.	3.23	0.80
3.	The Joint Commission's standards were easy to understand.	3.69	1.07
4.	The Joint Commission's standards were easy to use for assessing my hospital's practices.	4.00	0.68
5.	The preparation that my hospital had to do was time-intensive.	4.15	0.86
6.	The application process for FPQC funding was easy.	4.46	0.63
7.	The Joint Commission was available and responsive.	4.62	0.62
8.	The FPQC was available and responsive.	4.85	0.36

Program Complexity

Participants rated the complexity of the different stages of the verification program on a 5-point Likert scale from 1- Not Complex at all to 5-Very Complex. The *least complex* stage of the program was ***post-site visit follow up*** (mean 1.46, SD 1.08) and the *most complex* stage was ***preparation*** (mean 3.15, SD 1.23). However, as shown in Figure 6, individual hospital experiences were different; one hospital found the post-site visit process to be very complex while none of the hospitals rated the application or site visit processes as very complex.

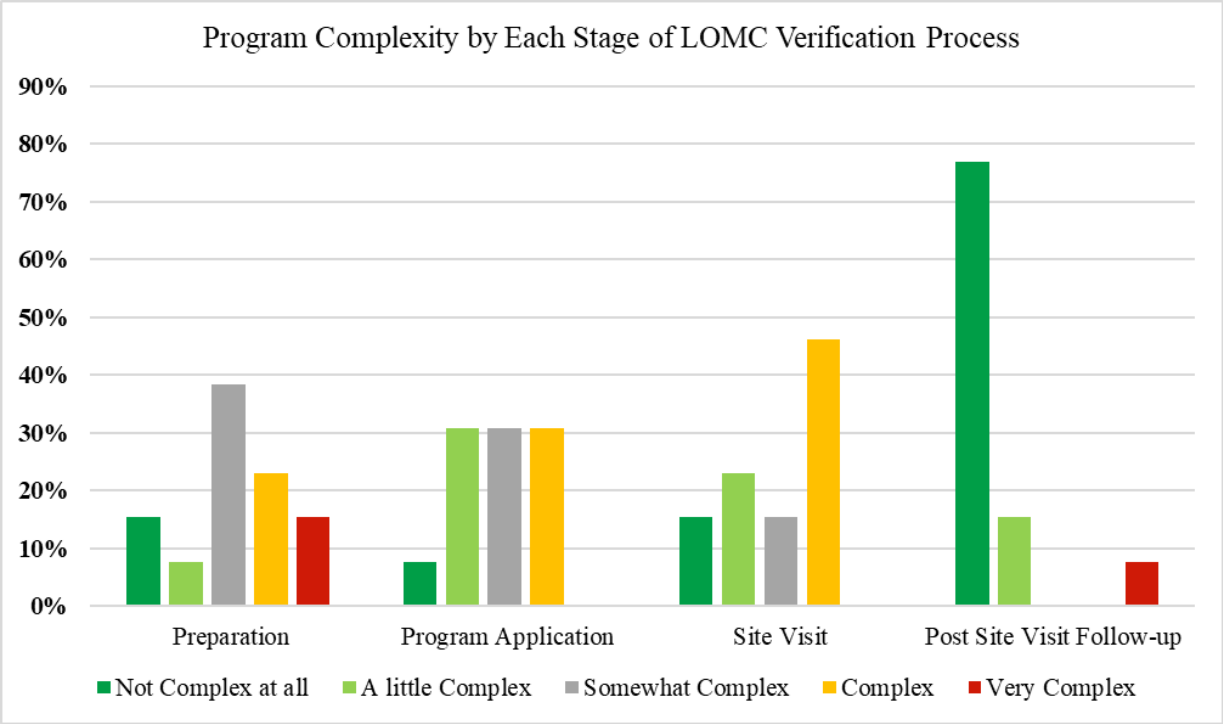


Figure 6. Hospital Rating of Program Complexity by LOMC

Contextual Factors influencing the Preparation and Implementation Phase

General Overview: A variety of factors identified according to CFIR were important during the preparation and implementation of the LOMC verification. These factors can be categorized into five groups: 1) ***innovation*** (program characteristics), ***external setting*** (outside hospital), ***internal setting*** (internal system), ***individual*** (characteristics of individuals within the internal system), and ***implementation process*** (activities and strategies during the process). Items within each of the five factors (Table 3) were assessed for their level of impact during the LOMC verification process on a 5-point Likert scale from 1- Strongly Disagree to 5- Strongly Agree.

Table 3. Key Factors Influencing the LOMC Preparation and Implementation

CFIR Factor	Mean (SD)
Innovation	
1. The LOMC is complicated, which may be reflected by its scope and/or the nature and number of steps to be completed.	2.85 (0.86)
2. The LOMC purchase and operating costs are affordable.	3.77 (0.80)
3. The LOMC is better than other available options for addressing maternal risk appropriate care.	4.31 (0.61)
4. The LOMC has robust evidence supporting its effectiveness.	4.46 (0.63)
External Setting	
1. Societal pressure (mass media campaigns, advocacy groups, or social movements or protests) drive implementation and/or delivery of the LOMC.**	2.60 (1.43)
2. Competing with and/or modelling after peer hospitals drives implementation and/or delivery of the LOMC.*	4.00 (1.00)
3. Availability of funding from FPQC influenced our hospital's decision to participate in the LOMC verification process.	4.38 (0.92)
4. Quality or benchmarking metrics drive implementation and/or delivery of the innovation.	4.54 (0.63)
Internal Setting	
1. Organization of tasks and responsibilities within and between individuals and teams, and general staffing levels for the LOMC verification process were adequate.	4.31 (0.82)
2. Resources are available (e.g., funding, space, materials, equipment) to implement the LOMC	4.54 (0.75)
3. Implementing the LOMC is aligned with the overarching commitment, purpose, or goals of our hospital.	4.92 (0.27)
Individual	
1. Individuals of high level of authority in our hospital, including C-suite members, supported the LOMC process.	4.85 (0.53)
2. Hospital staff are committed to implementing LOMC.	4.85 (0.36)
3. Individuals of moderate level of authority, such as department heads, supported LOMC process.	4.92 (0.27)
4. Implementation teams leaders (i.e., individuals who collaborate with and support LOMC verification process) were available.	5.00 (0.00)
Implementation Process	
1. Our hospital was able to coordinate and collaborate to implement LOMC.	4.85 (0.36)
2. Our hospital was able to plan in advance to identify roles and responsibilities, outline specific steps and milestones, and define goals and measures for implementation success.	4.85 (0.36)
3. Our hospital was able to attract and encourage participation in implementing LOMC.	4.85 (0.36)

Note: * Missing response from one hospital. **Missing response from three hospitals.

Innovation Factors

The LOMC was considered to have ***robust evidence*** supporting its effectiveness (mean 4.46, SD 0.63) and was ***better than any other available options*** for addressing risk-appropriate maternal care (mean 4.31, SD 0.61). Hospitals indicated that the number of activities that had to be taken to complete LOMC was ***not complicated*** (mean 2.85, SD 0.86).

External Setting Factors

Quality or benchmarking metrics was identified as the most influential factor in the outer setting that drove the delivery of the LOMC program (mean 4.54, SD 0.63). Participants indicated that external pressure was the least influential factor in the implementation of LOMC program (mean 2.60, SD 1.43).

Internal Setting Factors

Overall, implementing LOMC ***aligned with hospital goals*** (mean 4.92, SD 0.27), ***hospitals had sufficient resources*** (mean 4.54, SD 0.75), and there was ***adequate staffing*** to prepare for, and implement the LOMC verification program (mean 4.31, SD 0.82).

Individual Factors

Overall, LOMC verification implementation received ***overwhelming support from all the individuals within the hospitals system from leadership level to staff level***. In fact, all participating hospitals had a team leader who collaborated with all other team members, and who supported the LOMC verification program.

Implementation Process Factors

All implementation process factors were rated equally high among all participating hospitals (mean 4.85, SD 0.36) for all identified factors. Hospitals were able to ***plan*** their activities, roles, and responsibilities in advance, ***encourage participation*** in the program, and ***coordinate and collaborate*** well during the LOMC verification implementation process.

Sustainment Phase

General Overview: After completing the LOMC verification, hospitals indicated their level of agreement with future activities that would sustain the level of care verification (Figure 7). Most of the hospitals (62%) ***committed to reconsidering reverification*** in 3 years and ***recommended other peer hospitals to apply for the LOMC verification program*** (85%). Interestingly, there were mixed results on whether hospitals would consider applying to *change* the current verification level in the future. Approximately ***half*** of the hospitals (54%) indicated that they would ***consider changing their current level of care***.

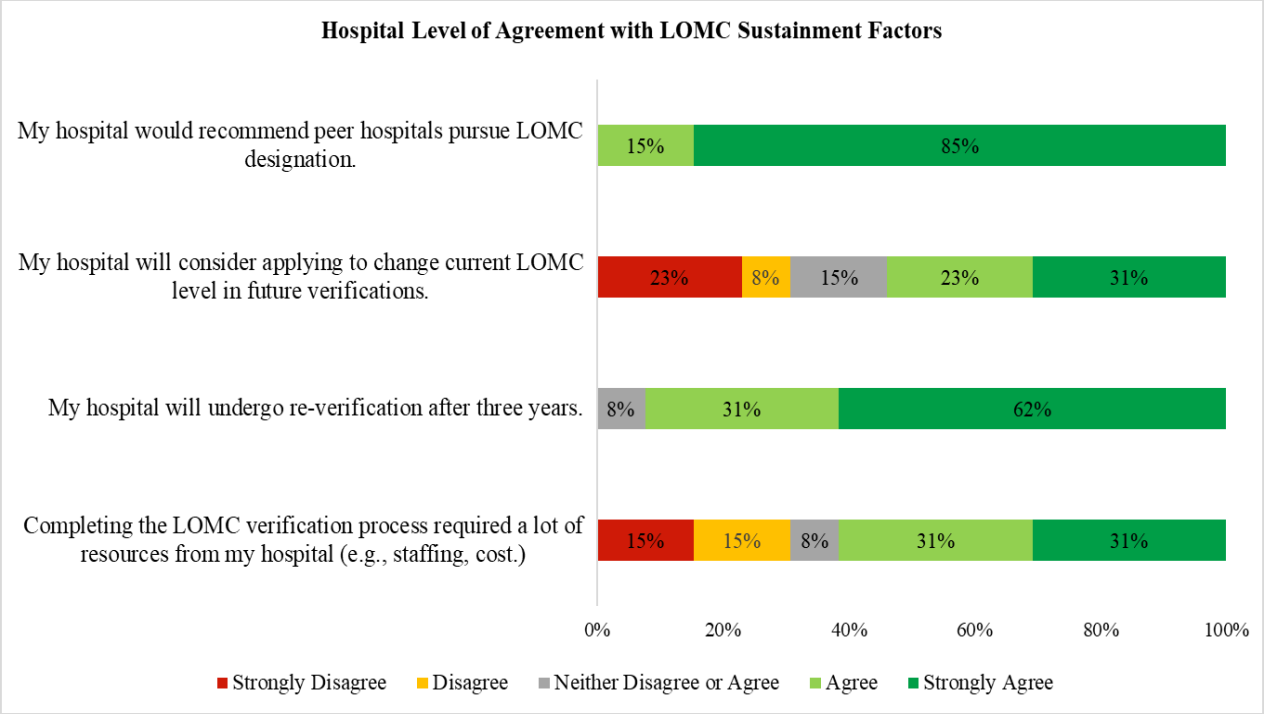


Figure 7. Hospitals Agreement Levels with LOMC Sustainment Activities

Other Experiences

Overview: Participants were asked to reflect on their LOMC verification experiences and identify any additional factors that were influential throughout the process from exploration (decision making) to sustainment (program maintenance). These factors can be divided into four categories: (1) ***Useful resources*** (pre-identified LOMC resources); (2) ***Overall positive and negative experiences*** (barriers and facilitators); (3); ***Additional Feedback*** (any other factors); and (4) ***Suggestions for Future Implementation*** (guidance and advice to peers).

Useful Resources

Overview: Participants were asked for their agreement level on how a number of identified resources were **helpful** during the verification process on a five-point scale from 1- Strongly Disagree to 5- Strongly Agree. Participants were also asked to indicate if they did not use the resource. As shown in Figure 8, all identified resources were helpful with all participants agreeing that ***discussions with the Joint Commission during the site visit was the most helpful resource they used*** (92.3% strongly agree, 7.7% agree). Interestingly, one hospital reported that they did not have any discussions with the Joint Commission before the site visit, and one other hospital reported that they did not use the Joint Commission's evidence of standards compliance summary.

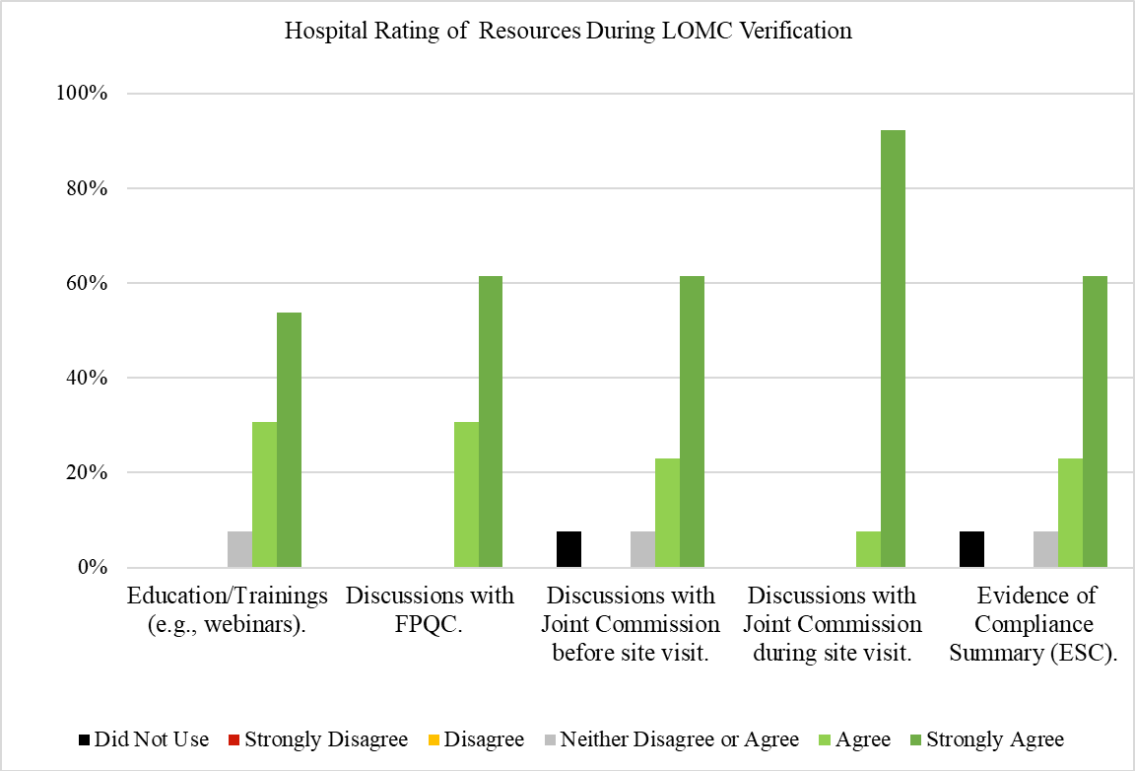


Figure 8. Level of Agreement on Helpful Resources During LOMC Verification

Overall Positive and Negative Experiences

Overview: Participants listed their overall positive and negative experiences in open-ended text (see Table 4). Participants perceived LOMC verification as a chance to ***showcase all the hard work that they do to deliver quality maternal care***, and as an ***opportunity to learn and improve their hospitals maternal care processes***. Even though some hospitals ***felt the pressure to do well***, they reported being ***proud and happy with the work they accomplished***.

Strong leadership support, ***availability of the Joint Commission and the FPQC***, ***knowledge sharing***, and ***internal collaboration*** were some of the facilitators. Some challenges that hospitals encountered were ***IT challenges with the Joint Commission website***, ***lack of internal support***, and ***lack of clarity on what was expected*** especially at the beginning of the process.

Table 4. Overall Positive and Negative Experiences

Positive Experiences	Emerging Themes
Leadership support	• Hospitals received overwhelming support from high and mid-level leaders. • Staff were motivated because of support received.
Joint Commission availability and support	• The Joint commission was available and helpful.
Education and knowledge sharing by the Joint Commission surveyor	• The Joint commission surveyors were wonderful and well received by hospitals. • Surveyors also took time to inform, educate, and share tips on how to improve processes.
FPQC availability and support	• FPQC was available for any questions and were supportive. • Other FPQC hospitals were also helpful.
Collaboration	• Team building experience as hospitals were able to collaborate between departments within a facility and between facilities within a hospital system. • Collaboration streamlined processes within the system. • Peer hospitals who had been through the process offered beneficial guidance.
Learning experience	• OB leadership team gained knowledge by going through steps in the process. • Participants learned more about internal processes in place and how to improve the process for quality maternal care.
Validation for work well done	• Strong clinical and team processes in place were highlighted. • Verification was “a chance to shine” showcasing the good work being done
Negative Experiences	**Emerging Themes**
Site visit intensity	• At some sites, the verification visit felt intense as participants wanted to do well.
IT challenges	• Most hospitals were not able to upload their documents to the Joint Commission website
Lack of clarity	• In the early stages, some hospitals did not have any clarity as what the requirements were
Lack of support from some departments	• Some hospitals did not receive support from all of their departments which increased the workload for LOMC leadership teams

Additional Feedback

Participants provided additional feedback regarding reasons for adopting the LOMC program, other resources that they utilized during the process, and feedback on general experiences (see Table 5).

Table 5. Additional Feedback

Feedback	Emerging Themes
Factors influencing decision to adopt LOMC	• Opportunity to demonstrate commitment to improving maternal health outcomes to the community. • Bring to focus the lack of high-risk OB care in the region where the hospital is located.
Other helpful resources/activities during the process	• Discussions with other hospitals going through the process at the same time. • Use the same codes as what is used in the Joint Commission standards.
Feedback on LOMC experience	• The site should select when the visit is scheduled. • Appreciated FPQC presence during the site visit i.e., during observation. • Enjoyable experiences with surveyors. Surveyors were thorough and knowledgeable. • New staff did not get to experience the entire process. • Already implementing some best care practices shared during the verification program.

Suggestions for Future Implementation

Participants were asked to provide suggestions and recommendations for hospitals seeking to adopt LOMC verification.

1. **Conduct a gap analysis.**
    - Assess your hospital capabilities, discuss with leadership, and only apply for levels of care confirmed by leadership.

2. **Preparation starts before application.**
    - Have everything ready before the application, you will do the bulk of the work before the site visit and turnaround time is quick.
    - Create an ongoing repository shared with all team members outlining all activities, tasks, responsibilities, and timelines.
    - Have a point person to coordinate all verification activities.

3. **Obtain buy in from everyone (staff, leadership, other departments).**

- Encourage and engage staff to commit to LOMC processes and standards.
- Obtain buy in from all ancillary departments and have them involved in the process.
- Check-in with the implementation team frequently.
- It's a lot of work, but if the team works together, you will be successful.

4. **Follow the Joint Commission Guide.**
    - Follow the guide step by step to help you prepare your process.
    - Use the guide to develop presentations for site visit.

5. **Talk to other hospitals who have gone through the experiences.**
    - Set up webinars with early adopters to speak to your team on how to prepare.

6. **Make quality maternal care a habit.**
    - Set high quality standards as normal practice.

QUALITATIVE FINDINGS

Participant Description

Nine hospitals participated in the interviews. A total of 20 participants participated across the 9 interviews (1 per hospital): 5 nurse managers, 13 OB services directors, (nursing, quality, perinatal, women's health, and MFM), 1 perinatal nurse educator, and 1 associate vice president for women's health.

The qualitative findings are presented below by a (1) brief overview; (2) a summary table; and then (3) an expanded description of each key theme.

Decision to Participate

Overview: Participants discussed their exploration phase including how their hospital got involved with the LOMC verification program, how they obtained buy-in, and reasons for deciding to implement the program. Key factors influencing the decision-making process included having a hospital champion, quality improvement (QI) experience, motivation to participate and wanting to validate the level of care already being provided (Table 6).

Table 6. Selected Quotes for Decision to Participate

Decision to Participate	Supporting Quote
Hospital Champion	"Originally, one of our MFM doctors, Dr. X, suggested that we look into the maternal levels of care. Since it was really new, we weren't really familiar with what it was. As my position, it fell on me to take a look at what is it by the joint commission and ACOG, it was that collaboration, which I think really helped support the decision to go for it."
QI experience	"Well, I've known that this was coming for many years because of FPQC and going to conferences and knowing that the maternal levels of care was coming. I didn't know how it was going to roll out, but it's been on my long-range plans to jump on board."
Motivation to Participate	"Since ACOG was involved, obviously, our providers look to them greatly for things that are quality and data-driven. That really made a difference."
Self-Validation	"I felt like it's opportunity for us to prove the care that we give, to make sure that we were able to bring it to maybe a more official level. We're doing the work so let's get the recognition for it, and so we felt like it was an important designation."

Hospital Champion

Every hospital had a champion who was often described as someone "in the know." Most hospital champions became aware of LOMC program through FPQC and spearheaded the implementation process, starting with obtaining buy-in from hospital administration.

> *"I was looking at ACPC (Advanced Certification in Perinatal Care). I had heard of maternal levels of care through FPQC previously, and I knew there was something coming. I don't think I knew the name for it or understood it, but I knew it was coming. I believed, I felt like we were doing the work, so we should get the recognition for it. Definitely, I feel it was a good thing. I did present it to my administration."*

> *"I was able to go to our administrators and go, "Hey, this is available for us to do. It's pretty neat. It's cool. This is why we need to do it." They said, "Yes," because we are not a Joint Commission hospital, that had to be approved by others further up than my next level. It had to come up further up the chain because it had to be explained that yes, Joint Commission is running this, but it's actually ACOG Joint Commission joint thing because they were like, "Why do we want Joint Commission coming in because they don't survey our hospital?" That was just a little difficult. Once it was explained to them, they said, "Yes, definitely you need to do it."*

QI Experience

Most participants had experiences with QI processes through hospital certifications. E***xperience with certifications*** helped familiarize participants and their staff with the verification process.

> *"We get surveyed by the Joint Commission all the time for all kinds of reasons, and they come into our space for all kinds of reasons. Our staff is very familiar with, "Oh, the Joint Commission's walking through your unit, they're going to talk to you and ask you questions," so they're very familiar with that process."*

Additionally, participants indicated that they had ***QI project experiences through previous and current involvement in the initiatives offered by the FPQC***. Involvement with the FPQC was key to participants learning about the availability of the LOMC program.

> *"I think at the very earliest that we were even made aware of maternity levels of care, it was through the FPQC. We were already involved in other statewide initiatives and so there were several of us here at the hospital involved in PROVIDE (Promoting Primary Vaginal Deliveries) initiative, the MORE (Maternal Opioid Recovery) initiative. We just had that connection with FPQC already. I think that's where we first heard about maternity levels of care. Then after that, it quickly escalated. They were, I think, really good about getting the hospitals the information that we needed."*

Motivation to Participate

Participants were motivated to participate in the LOMC verification program by the desire to ***improve the quality of maternity care*** and ***set an exemplary service to the communities they serve*** including patients and providers. As noted by one participant,

> "*We were definitely for the initiative because we could see how we can let our community know which hospitals to go to based on them knowing about themselves and being able to go to the hospital or staff at the hospital, or at least know if I go to one, I may have to transfer to another. Having that in the back of their minds and then get a chance to be well informed and educated on the process and make good choices themselves. Also, as providers we have thought, in the community the providers should also know that hospital A is level two hospital, B is level four, and we really need to go to level four, let's go to four as opposed to making a stop unless it's an emergency, a life-threatening situation. That's how we saw it from my perspective."*

Many participants indicated a ***strong a commitment to reducing maternal mortality and morbidity*** prompted them to take a deeper a look at all their practices to ensure they were consistently following all the appropriate guidelines and to identify if they were any opportunities to do even better.

> *"It really just elevated the look at our systems as far as consistency, safety, and then being able to assure our service, our population that we are following those appropriate guidelines and helping to reduce morbidity and mortality rates as a whole."*

> *"Even for us to point out and say what aren't we doing? Or what maybe opportunities do we have in the future, because as we're looking at such important work yet to be done in care of pregnant women, I think it's important that we all step up and be willing to take a deeper look at what we have and what we need to do our best for our patients."*

Self-Validation

Being verified and getting the LOMC designation was a chance for participants to ***get proof of all the good work that they knew they were already doing in providing quality maternal care***. It was also an ***opportunity to ensure that hospitals had all the services to provide care at the level they thought they were providing***.

> *"But I think for all of us, we knew we were doing this work. We knew that we're committed to keeping our moms safe to have good outcomes. When we know that we're already doing this work, this just came across as it's like that stamp of approval. That yes, you're doing what you say you're doing. When we started filling out the applications and looking at all of the criteria for the different designations, it was like, yes, hands down. We do this, we do that, so that's why I did feel confident going into it."*

Preparation for Verification

Overview: Several activities and responsibilities were undertaken during the preparation phase for the LOMC verification. The main components included ***(1) gap analysis***; ***(2) team formation***; ***(3) readiness for site visit***; ***(4) collaboration***; and ***(5) resources***. Table 7 presents these main constructs, the sub-themes within them, and supporting quotes.

Table 7. Verification Preparation Components and Supporting Quotes

Preparation Component	Supporting Quote
Gap Analysis	
• Gap Analysis	"First, we as that leadership group, we talked about where our gaps were and how we were going to address them."
Team Formation	
• Team Structure	"I would say, it was mostly a team we already have that works on all things related to maternal care. Of course, because of the Levels of Maternal Care requirements."
• Team Functioning	"Once we made the decision to move forward, we met weekly for about two months, and then we met biweekly in this couple of weeks leading up to it, just to make sure we had everything the way we wanted it to be."
Readiness for Site Visit	
• Involving Hospital Leadership	"I think it was a little bit easier as it went through the process that they [CMOs], okay, it's not going to take a ton of your time. Just got to show up and smile and just talk about all the great work that you guys are doing. Then we engaged our physicians, so we involved them as well, our hospitalists, just to prepare them to understand. We reached out to our anesthesiology leadership and other specialties around the hospitals just to make sure that they knew what was going on so that there was no fear. It's not a site visit where you're being reviewed. They're just here to verify what we're doing."
• Policy and Process Review	"Leading up to maternity levels of care in our preparation phase, it really lit a fire under us to really put all of our policies and procedures and standing operating procedures under a microscope to make sure they were pristine and that we were following all the evidence-based guidelines."
• Visit Event Organization	"We then started focusing more on what does the site visit look like. What is our agenda look like for those days? Making sure that on the agendas, this is where the little nitpicky things get with the project manager is so important of, is it on everybody's calendar? Do you have the rooms booked for what you need? Do you have presentations ready? Do you have policies put together?"
• Staff Preparation	"We talked about it with the staff and told them Joint Commission was going to be coming and this is why they were coming."
Collaboration	
• Collaboration	"What we did get a chance to do is connect with our other people from the other system. They shared what their learnings

Table 7. Verification Preparation Components and Supporting Quotes

Preparation Component	Supporting Quote
	were, lessons learned, and they shared what they were preparing going forward, so we knew what to expect."
• Collaboration with Ancillary Services	"The day before we rounded with every department. We went to the blood bank. We went to the lab. We went to radiology. We went to respiratory. To be very clear, okay, as part of our team, this is what they might look for with maternal care. [Name] was very good at plugging everybody in so that surveyor didn't have to go chase people down."
Resources	
• The JC Toolkit	"We took the verification guide. That was our bible that I studied, [Name] studied, our associate vice president studied. I took that with me almost everywhere to make sure that I knew it from front to back and knew all the things that they would potentially ask us for."
• Information Material	"So, between going to the Joint Commission website, and the FPQC website, and even through ACOG, so just kind of looking at those different pieces and the different support structures just to see what they all had to say and to find out more information about it."
• Binder of all Processes	"One of the things that we created was a big binder. Everybody says it was a huge binder, you've probably heard about that a few times. The binder had everything in it that you could go to and say, "This is the go-to." It was like our binder of life. Everything was in there. That made it really easy that if I found something that we could use, all the other units could use it also."
• Mock Drills	"We also identified charts that we would do a tracer on ourselves from the beginning to end which is something that maternal levels of care Joint Commission likes to do. See a maternity patient through the entire process either from the emergency room or from inpatient or walking in off the street just the entire tracer throughout the hospital. We did a few tracers examples like that just to make sure that we are showing the work that we're doing."
• Outside Support	"Yes, before we met with [a different Hospital], there was so many unknowns, but after we met with [a different Hospital], that's when we really got like, okay, we know what we're doing."

Gap Analysis

Participants conducted a gap analysis to look at their hospital capabilities, whether their process and procedures met the Joint Commission standards, and where they needed to improve to be aligned with their desired level of care in their application. As noted by one participant below, they needed to able to address each guideline pertaining to the level of care they thought they were providing.

> *"When we were asked about our actual, what designation did we want to go for, what level were we going to go for, we took the joint commission manual, I guess it is the actual one that tells you what each one level is and where you are. We took that in, like, "What do you have? What do you have? Do we have radiology available 24 hours? Do we have somebody on campus for IR (intervention radiology)?" We had to answer all of those questions."*

Team Formation

For most hospitals, there were two kinds of teams: the core team, and the expanded team. The core team included members of OB leadership such as director of quality, nursing directors, medical directors and nurse managers. This was the main implementation team that put the whole program together and members met with regular frequency (mostly once a week) from the time the decision was made to adopt to the day of the Joint Commission site visit. The expanded team differed from one hospital to the next and included leadership in other departments that were pulled in at different timepoints based on what the core team was working on such as nurse educators, project manager, transfer center manager, data analytics, and IT.

> *"We pulled together starting with our directors of nursing, our quality outcomes director, our data analytics leaders, we have a clinical nurse specialist, our nurse manager for perinatal education. We also pulled in [physician name], as needed. We really used that as the core team to start diving through the manual and really figuring out what it was that we were trying to verify what the ask was from Joint Commission, and what was needed. We would add ad hoc people throughout the process as we needed them. For example, we have a manager of our transfer center. As we got towards the end, we included her. We also are very fortunate to have a project manager that was able to intermittently come to meetings and help us really put together an end product so that we can have our ducks in a row. We did have a large team working on this throughout the process. They met regularly, and they met in person to be able to work through each part of the requirements."*

Most teams existed prior to the LOMC program and already worked together on maternal care processes. Where some members were new to their roles in hospital, they reported an existing working relationship.

> *"We have a pretty set team. We have a multidisciplinary debrief team that we meet monthly with. We debrief any events that happen within our women's and children's pavilion. When we started maternal levels of care, we pulled them into this as well. They*

were a pretty big part in helping to make sure that we had everything that we needed, and we were ready."

"No [the team is not new], we have a meeting every Tuesday morning and we're all on that meeting."

"The main team … was our normal leadership team for OB services. We are a little bit of a newer team in our roles, but we already have a good working relationship."

Readiness for Site Visit

Participants took a multi-step approach to get ready for the site visit. First, the ***core team conducted policy and process reviews*** to make sure they existed, were up to date, and met the required guidelines. Participants also wanted to learn and familiarize themselves with their own processes and how they are practiced assuring that they could speak about their processes confidently.

"We went to the ED, got a full tour of the ED inside and outside so we can know what the patient's workflow was. We went there to get an idea what it would look like for a patient to come in so that we would understand the process ourselves when we needed to explain it and how it worked. We also got a chance to ask those colleagues, how do they handle things when all new patients come in and learn from them as well. We did learn quite a few things along the way."

Second, participants had to ***plan and organize for the site visit*** (e.g., what was the agenda, which rooms they would be using, who should be present) and coordinate with hospital leadership to ensure that they were available during the site visit.

"[Name] did a lot of preparation for this day, for this survey day. She was very successful in creating a timeline for us all to follow and to be ready and just to keep the entire day flowing very smoothly. That was absolutely vital to the success of being able to show all this hard work that we do have done and continue to do. With that transparency, we had no problem showing what we are proud of the service that we do. The timeline was very important and all of our team members across the hospital as a whole, the different departments appreciated that. They were ready and available to our surveyor. Then the team enjoyed that as well because we knew, okay, this is when they are coming, and we were ready for it because I think that's part of being prepared."

Third, participants ***prepared their staff by educating them about LOMC***, why the hospital was seeking verification, and sending reminders about when the visit would occur. All hospitals emphasized to their staff that this process was just to show off the amazing work that they already do.

"They [the Joint Commission] want to hear what kind of great care you guys do."... They want to hear how great we are. That's how we prepared them. Just sent out [posters] and

talked about it at our briefs for about a week. Every shift change, we do a brief and we just said, "Don't forget Joint Commission's coming."

Furthermore, all hospitals prepared their patients for the site visit by explaining the LOMC process and obtaining consent, some in real time but some others ahead of time as one participant noted:

"That morning of the survey we made sure that we did a round with all of our patients, and we told them a little bit about the surveyor, what was happening that day, and asked their permission, if he/she would like to come in and speak with you, would you allow that. We did get permission ahead of time so we knew which patients would allow him/her to come into the room and speak with them."

Collaboration

Hospital systems worked closely together between different facilities within a network, and between different disciplines within one facility. The LOMC implementation team learned from each other, and the collaboration also ensured that there was consistency in policies and processes related to OB patients' system wide.

"If we all worked together, we could back into what everyone else needed. If Campus A had it, and it was something that we did system-wide, then that would check the box for the other campuses and be able to back them into what was needed for them… the team [multi-facility] did work together on each part of it. The levels of care that we provide to our patients, our policies, SOPs, order sets, nursing education, policies, and procedures are all standard across all the campuses. That made it very easy to go through and pull all those pieces together."

"We also made connections with all the different areas of the hospital because we wanted to let them know this is a process that is for OB, but it's for OB wherever they are on campus. Like you said, we feel like our reach is out wherever our patients are. We know so much of what our patients need it's not just our team, but it's the coordination with multiple other team members and departments in the hospital. I did reach out to make sure that the leaders from the team were aware that we were going through this process, and they had helped me along the way. I would take the standards and say, "Okay, this is our level two standards. This is where we believe we are." I would send it out and say, "Can you confirm? Do we have these pieces in place? I believe that we do but as a specialist, can you confirm that we have this ability?" That was the way that we worked through to make sure that we were prepared, and we were on par for where we should be."

Resources

Initially, participants obtained ***available information and other materials such as webinars and presentations from the Joint Commission, ACOG and/or FPQC's website*** to familiarize

themselves with the program. Some hospitals also connected with peers who had gone through the process for insights and clarifications.

> *"They [FPQC] put us in contact with a couple of hospitals who had gone through the process in the past to get their insight and tidbits, little pearls of wisdom to help us be successful or have we thought about kind of things. That was a very helpful conversation. We took away a long laundry list of things, things we had probably thought about but we confirmed, "Yes, we were going to do that." That was helpful."*

The ***Joint Commission verification guide*** was used exhaustively to plan and execute all the steps and processes of the preparation including creating their own resources such as presentations, and a binder that contained all the necessary paperwork.

> *"Once our application was submitted, we then received the information from Joint Commission of how to prepare and what we needed to be ready to submit for our site visit. That's when we began our weekly in-person meetings. What we did was we actually printed off all of our objectives that we needed to meet and we put it in a binder. We just started going page by page, item by item, and figuring out what items do we already have in process that proves and verifies what this specific piece needed."*

Additionally, some hospitals also did ***mock drills during huddles through chart reviews and equipment checks to evaluate their processes and as a learning experience for the staff***. As one participant noted, these practice sessions helped the staff to understand the rationale behind the things that they were already doing to provide care.

> *"We ended up at huddles bringing that cart in, going over everything that was in it with the staff so that should we be asked questions, everyone could speak to the same language and knew where everything was. That was helpful for the staff and then they understood why we were doing it. It's important to do. It's something we've done every day anyway, but it was just allowing them to know like, okay, I really need to make sure I know where my supplies are, how to open the cart, things like that."*

Site Visit Experience

Hospitals discussed their experiences during the entire process of the site visit including the review of all maternal care policies and procedures, and interactions of the Joint Commission surveyors with the hospital stakeholders and patients. Table 8 presents the key elements of the site visit experience shared by the participants.

Table 8. Hospitals' Experiences during the Joint Commission Site Visit	
Site Visit Experience	**Supporting Quote**
• Structure of the Site Visit	"Of course, there's a template agenda that it sent to us, and it was relatively followed with a little nuancing on the day."
• Atmosphere	"They were completely amiable. There was no stress. [The surveyor] was very approachable, very engaging with the staff."
• Mission Alignment	"We realized quickly by presenting what our vision and mission was, is that [the surveyor] was there for pretty much the same mission and vision that we had, to validate and verify what hospitals are doing for the communities."
• Interactions with Staff	"Then we went out and did on-the-unit interactions and case reviews with active patient, census patients with staff. We did a couple on labor delivery."
• Interactions with Patients	"[The surveyor] spoke with that patient about the lactation education that she was receiving and even observed the lactation in patient interaction."
• Observing Service Provision	"[The surveyor] wanted to see how social services got involved in the care and how they (hospital staff) managed that piece. They wanted to see that all the way through. They were looking for that interdisciplinary care that we give off apart from nursing."
• Tracers	"[The surveyor] observed one of our labor and delivery nurses, went through a chart, had a very, very thorough review, looked at the fetal monitoring strip, talked about Pitocin, chain of command, a lot of questions."
• Interactions with Ancillary Services	"We started out with a walkthrough the ED and [the surveyor] really wanted to understand the patient's route that they would take, physically walking outside and walking in through the ambulance bay, coming in through the main doors, talking to the ED and asking, if I'm a patient and I come in off the street, what are you going to do."
• Areas of emphasis	"[The surveyor] highlighted our NTSV cesarean birth rate because that was a big deal."

Structure of the Site Visit

All hospitals received an agenda from the Joint Commission before the visit. The visits were for one day if the hospital was applying for a level I or level II designation; and for two days if the hospital was applying for a level III or level IV designation. Though surveyors followed a template agenda, it was often adapted to the specific circumstances of the respective hospitals. Generally, all visits included an opening ceremony (introductions and hospital overviews), hospital tour, interactions (staff, patients, ancillary services), chart tracers (record review), credentialing review, and a debriefing session at the end of day which allowed for further feedback and discussions with the leadership team.

"All of the key leaders, introduced everyone to open up for Hospital Group Health which was great, given a little bit more of a broad overview. That way, when [surveyor] was at the different campuses, we opened up with just campus-specific information tool. We started the day with all of our C-suite was there for the opening ceremony. We actually had an opening meeting. We had a really good turnout, which was wonderful."

"We were able to start out the day with introductions so [the surveyor] could meet our team, the campus leaders, and that we could just provide some history and background to our campus."

Atmosphere

Participants highlighted the importance of the surveyor's personality, cadence, and overall ambiance in setting the visit atmosphere. One of the hospitals mentioned that initially, there was some unexpected tension and uneasiness. However, as the visit progressed, the atmosphere warmed up, creating a more comfortable and collaborative environment. The surveyors were described as friendly, approachable, and detail-oriented, engaging with the staff, and providing educational insights throughout the process. Participants appreciated the conversational and non-punitive approach of the surveyors, who focused on understanding the work carried out daily and recognized the effort of the staff. Higher-level visits were more in-depth and intense, while the lower-level visits were quick but thorough.

"*You feel intimidated at first, but then when you start talking with this person, they're also trying to make you feel comfortable. When we brought [the surveyor] around to the team, they were like, "Oh." We're like, No, it's okay. It's all good. Just be who you are."*

Mission Alignment

Participants expressed a sense of mission alignment between the Joint Commission and themselves. This understanding transformed the survey into a collaborative effort with the surveyor, seen as someone who could help the hospital improve and become an even better version of itself.

"Then when we all realized that we were all in the room for this same purpose I think that it turned everything. The survey was amazing and at the end of it being able to hear that we can even be better than what we were going in just by collaborating with someone outside of our system was amazing to me."

Interactions with Staff

During the site visit, hospital representatives had the opportunity to interact with the surveyors and share valuable insights about their work and unique programs. The site visit included tours of maternal, neonatal as well as ancillary service units, showcasing, innovative concepts like an escape room for education and drills. The surveyor engaged with staff to review the charts of patients admitted at the time of the visit or in the past. Discussions were held about safe

discharge plans, and the hospital's focus on labor support practices, such as dancing. Overall staff appreciated the surveyor's personable and kind approach, which allowed them to feel comfortable and be themselves during the verification process.

> *"[The surveyor] actually went into all three units and charts of all three units. Initially, we just took them on tours to show what our unit looked like. We went through one of the units. [The surveyor] met the educator. We actually had just developed an escape room. Our educator had just finished it. We decided to highlight that as a way to show how we would, a new concept of doing education and drills. The surveyor was actually quite impressed by that, that it was a new way to do it. We spent some time in there."*

Interactions with Patients

The surveyor interacted with patients to gather firsthand information about the hospitals' service provision. For example, the surveyor spoke to a mother who had just started breastfeeding her newborn baby and to another mother who had her newborn admitted to the Neonatal Intensive Care Unit. Such interactions between the surveyors and patients were valuable in evaluating the hospitals' practices and patient experiences.

> *"The surveyor did go visit the patient for a breastfeeding session. We prepared, our lactation consultant talked to the patient, and she found someone who was willing to have people come in. We introduced ourselves, of course, and told them why we were there. Mom was very comfortable with it. She didn't have any challenges at all. Our lactations consultant actually helped us to find the right patient, "I have a perfect patient. She's going to be somebody who's going to go breastfeed and she's going to be doing it soon. She's doing really well and she's open to people coming in." They explained it to the patient and told the patient the why, what we were doing, and she wanted to participate. It was her way of giving back."*

> *"One of the things is they want to speak to a patient, but we had a mom there who only just got discharged yesterday, the baby, after X number of days in the NICU. [The surveyor] spoke with that mom, and [they] wanted to know about the communication that we had with her, the education we gave to her. They just randomly picked that person who just happened to be standing there in that place. That mom spoke very highly of us, which we were happy about because when you pick somebody, you could randomly pick somebody who had a bad experience and was having a bad day. That's always scary too. The surveyor spent good 20 minutes talking to that mom maybe, an in-depth conversation. We weren't privy to the conversation. Told us a bit afterward and then the patient told us afterwards what [the surveyor] was saying. [The surveyor] wanted to know how we educated her, how we gave her updates. Did somebody come and see her while she was in labor from the neonatology team? [The surveyor] was asking her questions that the elements of performance pull out but she was getting it from the patient's perspective, how we educated her. Whole bunch of in-depth questions that you can look at a chart audit, and you can listen to us, and look at our policies but do we actually put it in practice?"*

Observing Service Provision

The surveyors actively engaged in observing all aspects of maternal care relevant to the hospital's level of care. This included care of high-risk patients, interdisciplinary care, and comprehensive care beyond nursing such as collaboration with social services. The surveyors also paid attention to special cases, like a patient on ventilatory support, lactation education, and interactions between staff and patients.

> *"At one of our campuses, they asked for permission to visit with a patient. [The surveyor] spoke with that patient about the lactation education that she was receiving and even observed the lactation in patient interaction."*

Interactions with Ancillary Services

Surveyors visited the laboratory, emergency rooms, ultrasound, respiratory services, and anesthesia services to understand the hospitals' operations beyond obstetrics and assess the integration and coordination of services provided by ancillary departments. At some of the hospitals, representatives of all the ancillary departments were invited to provide input and answer questions during the visit.

> *"Then we went to the ER. The surveyor wanted to know how the staff got education on different levels, all of that. The educator was on point. She pulled out a book and then she said, "And this is proof we've educated these people, and the doctors have been educated, and we have this policy for this." Then [the surveyor] wanted to see some equipment there to make sure that we had a radiant warmer and that we had equipment in case somebody came in for an emergency in the ER and where their emergency kits were. We have had some collaboration. I'm glad that we had been told that that had happened because I don't think it would've been bad, but I feel like there was a doubletake by the staff down there in all these areas. In lab, in ICU, and ER, I felt like because of that they had pulled everything together entirely to be able to prove it."*

Tracers (Chart Reviews)

The surveyors conducted comprehensive chart reviews (tracers) in various units, including labor and delivery, mother-baby, and high-risk mothers to assess the hospitals' compliance with various standards. They thoroughly examined charts, paying attention to order sets, care plans, pain assessments, medication administration records (MAR), and history and physical examinations. The surveyors asked specific questions related to the elements of performance and reviewed charts of patients with specific conditions such as hemorrhage or preeclampsia. Additionally, surveyors observed labor and delivery nurses, reviewed fetal monitoring strips filled out by them, and discussed topics such as oxytocin administration and chain of command.

> *"Then we moved on going on to the units. [The surveyor] did a question and answer with us and the smaller group team together asking about policies and things. [The surveyor] wanted to come and do the patient tracers on the unit. On the unit, [the surveyor] did, I think, five patient tracers each day. They started in labor and delivery and did five*

patient tracers there. [The surveyor] went and spoke with patients; they sat down with the nurses who were caring for those patients. It was back-and-forth questions and answers, looking through the charts. That went really, really well."

Areas of Emphasis

Surveyors placed emphasis on specific areas depending on the level that the hospital applied for and what that hospital was known for or emphasized. For example, transfer protocols and ICUs were examined in detail at higher level hospitals; and lactation education were examined in detail at lower level hospitals. For one hospital, the coordination with birthing centers was an area of focus because they provided services to those facilities. In addition, in some ICU units, there was an extensive dialogue with the ICU leader, suggesting a thorough evaluation of patient care and collaboration with that department. Attending to pregnant people in the emergency department was another area of emphasis by the surveyors. In general, the surveyors paid close attention to the hospitals' internal environments by observing the physical spaces. Community involvement and connections were also of interest to the surveyors who focused on the collaborative relationships outside the hospital.

"I think the reviewer was really focused on our community involvement and our connections. The reviewer kept asking, if you remember, a lot about our connection with births is with the birth center outside here."

Post Site Visit Experience

Once the site visit was completed, hospitals revisited their policies and procedures based on the recommendations of the Joint Commission surveyor. Participants shared their experiences including how they addressed the gaps identified by the Joint Commission, lessons learned and how they were planning to or had declared the LOMC verification to their own staff, public and other stakeholders. Table 9 presents the key elements of the post site visit experience shared by the participants.

Table 9. Experiences among Hospitals after Joint Commission Site Visit

Post-Site Visit Experience	Supporting Quote
• Addressing Gaps	"The surveyor had said, "If you do have a high-risk patient that comes in that might need a transfusion, are you sharing that with blood bank

	or are you waiting until there's a problem?" We were like, "No, we usually just wait and see if we have a problem." We expect them to perform, and they do but more communication is usually better. That was one of the little things that was an opportunity that they surveyor noticed that we could improve things. That's a process that we already have put in place is if we see somebody that's higher risk for hemorrhage, we let them know, "Hey, we have a patient on the floor that is higher risk." Just want to make sure so that you have everything that you need."
• Lessons Learned	"I think I wish we would've done that an actual sit-down formal gap analysis which I talked about."
• Attitudes and Perceptions of Verification	"I think that's [LOMC verification] a big thing for them [staff]. Not only did we get it, but we're the first in this area of Florida. That's something that you can say for years, and years, and years. The younger staff who have just started, when their senior staff and in management, they can say, I was part of the first hospital that did this. That's a big deal because you can talk about that. That's bragging rights forever."
• LOMC Verification Declaration	"Since we've gotten it, our PR department in marketing, they've put stuff on social media. They've just ran with it because like anything else, you obviously want to get that out there for people to see that we've gone the extra effort to have the quality of care and so they want to advertise that broadly."
• Celebration	"We passed everything that we knew we had rocked it, so we were like, yes, we had everything he wanted. Even credentialing had everything he wanted. There was nothing else the surveyor wanted from us. We were happy. We jumped up and down. I think we were happy."

Addressing Gaps

Overall feedback was positive, and the gaps identified during the site visit were addressed either immediately or after the surveyors left. A few examples of such policy changes were oxytocin administration protocol, and prior information sharing with blood banks to indicate high-risk pregnancy admission that may need blood transfusion. However, not all gaps could be addressed as shared by a hospital that did not meet the guideline requirements for obstetrician per their respective level.

> *"We then right away tried to take some of those recommendations and make sure that we put them into practice."*

Lessons Learned

Collaboration and communication with various departments and staff and gaining their buy-in early on was considered crucial for successful outcomes. Hospitals highlighted the significance of allocating ample time for preparation and learning, as well as the value of understanding the Joint Commission's language and requirements. One of the hospitals noted the importance of documenting meeting minutes of all the meetings held during the LOMC verification preparation process. Hospitals also realized the importance of conducting a detailed gap analysis before the Joint Commission visit. Learning from the technology challenges faced during the Joint Commission visit, hospitals emphasized the need for dedicated IT support during the verification process. In addition, some hospitals identified the need for consistency in adherence to specific policies and procedures between healthcare team members, such as if/when to adjust medication and other interventions, such as oxytocin.

> *"I would say, just lessons learned of having meeting minutes, being more keeping up with that throughout your week so that way we don't have to pull that together suddenly. That was something, but again, I think it's just-- it takes a lot of collaboration and just making sure that everyone knows what to expect and understands the process, but again, I thought it went well. I would highly recommend."*

Attitudes and Perceptions of Verification

Overall, the attitudes and perceptions of the staff regarding the LOMC verification process were positive, reflecting validation and commitment to continuous improvement in maternal care. The staff members believed that LOMC verification was a good step and felt a sense of pride and accomplishment for being among the pioneers in the state of Florida. Hospitals recognized that getting verified demonstrated their commitment to providing high-quality maternal care and positions them as trusted providers in the community. Most of the hospitals also agreed that verification also served as an opportunity for improvement and standardization of care throughout the healthcare system. Staff members appreciated the professionalism and thoroughness of the Joint Commission surveyor. Furthermore, hospitals expected that as more hospitals will apply for verification, the regionalized network of maternal care would become clearer and more appreciated. Additionally, verification was found to underscore the critical role of the obstetric team in the overall healthcare ecosystem and helped in dispelling misconceptions about their workload and dedication.

> *"We certainly are very proud of it and have shared it with all of our nurses and use that to have them feel pride about the work that they do and their commitment to maternity care. I feel it puts us in a position where we want to strive and do better because we have that verification, and we want to make sure that we continue to truly stand behind it and deliver the type of care that it says we do."*

LOMC Verification Declaration

Hospitals declared or had planned to declare the LOMC verification through newsletters and social media posts, highlighting their achievement. One of the hospitals put together a flyer to display on the screen to announce to the whole hospital officially about LOMC verification. For internal communications, emails were sent to all the employees by the PR department. Hospitals celebrated this success with their staff in different ways.

> *"We've spoken in the OB meeting. We talked about it (LOMC verification). Definitely beyond that, I'm sure the doctors will speak to it to their patients when they go and see it themselves."*

Overall Facilitators

Hospitals stated many facilitators that helped them in the different phases of the LOMC verification process. They identified facilitators associated with their internal systems as well with the systems outside of their organizations (Table 10).

Table 10. Facilitators identified by Participating Hospitals for Successful LOMC Verification

Facilitators	Supporting Quote
• Leadership Support	"We are a fairly large hospital, and our leadership teams and executives are very much supportive of quality."
• Internal Resources	"I think one of the key components to our success was our (team member) having such a close knowledge base and connection with the FPQC…."
• Staff	"We had a nurse that really knows how to use EMR (electronic medical records) and she was tremendous. She knows the ins and outs of how to get through EPIC (software used by hospitals for keeping patient medical records), so she was able to find [surveyor] every single thing they asked for, there really wasn't anything that they asked us for that we didn't have."
• Culture	"It's always our philosophy that when you know something should be done better than you do it."
• External Support	"… the interviews that we did with [Hospital Name], I think were extremely helpful, but we just went out and said, "Hey, we heard you did this. Will you talk to us?" They said, "Yes, sure."…… they told us everything and they were spot on. I think that really helped us to be ready and eliminate some of that unknown factor."
• Joint Commission Factors	"There was a lot of clear communication, a lot of guidance on what to do next, what to prepare for if we needed a little bit of more time on something. Very, very positive experience."
• FPQC Factors	"I think it was a great incentive for us that you (FPQC) provided financial support, that's for sure."
• Funding Availability	"Having the funding, there was a big push that I was able to go to our administrators and go, "Hey, this is available for us to do."

Leadership Support

Leadership played a crucial role in the successful LOMC verification process. Hospitals highlighted the importance of having leadership exposure during the Joint Commission surveys and inspections, drawing on their extensive leadership experience. The CEOs and CNOs for women and children were specifically mentioned as being highly supportive, providing momentum and interest to drive the verification process forward. Leadership support was seen as essential, especially in smaller systems where it may be more challenging to garner support and move forward.

> *"Our CEO for women and children is very supportive. Our CNO for women and children was also incredibly supportive. That really helps because if it's an uphill battle, especially if you're in a smaller system and you're the only ones who are beating this drum, I can see where they could feel a little bit disillusioned and not be able to move forward."*

Internal Resources

In hospitals where hospital key stakeholders such as the executive director, perinatal nurse managers/ or perinatal directors were closely associated with the Florida Perinatal Quality Collaborative, they took the initiative to inform and involve the hospital in LOMC verification. A hospital's large size and supportive leadership teams, including a dedicated quality and safety team, facilitated the availability of necessary resources.

> *"Thankfully, like I said, we are a fairly large hospital, and our leadership teams and executives are very much supportive of quality. Again, we even have a quality and safety team for the hospital so getting those resources put together and focusing on that. Again, we did okay with that piece of it, but I could see if you're in a smaller hospital, if you're strapped for resources, that could be challenging."*

Staff

The staff including nurses, educators, and consultants facilitated the entire verification process. They worked alongside the key team members to prepare for the verification. Having experienced staff who knew the organization's ins and outs; and having team members with specific expertise (Joint Commission readiness and accreditation, electronic medical records) was valuable for the success of the program. Proactive team members, regular meetings and open communication among team members facilitated coordination and resource pooling.

> *"I think one of the things that we were fortunate, and I leveraged this a lot, is that [name] has a very, can-do outgoing attitude. When I said, "Hey, I heard [a different hospital] got level four." She reached right out. She found people at [a different hospital] to get on a call with us. Not everybody has the tenacity to just go out there and find it and get it and make it work for them."*

Culture

The staff was accustomed to regulatory services and safety surveys, and they were comfortable showcasing their processes and standardization to the surveyors. Interviewees stated that commitment to providing high-quality care for every patient was deeply ingrained in the hospitals' philosophy. The staff demonstrated a strong culture of quality and were actively engaged in monitoring and improving outcomes. The existing culture of care and quality ensured that the nurses were motivated and prepared to put their best foot forward during the verification process.

> *"To the credit of nurse manager number [Name] and the staff and everything, we have been doing every initiative with FPQC since the conception of the FPQC. It's just in the DNA of what we do, so it was easy to figure out what level we were going to be able to place into like, say, we got postpartum hemorrhage count. Well, we're not perfect. We're constantly auditing and seeing where, hey, we have our UPC (unit practice council) works on things that-- right now they're working on a blood pressure, medication thing with pharmacy."*

External Support

Discussions with hospitals that had already undergone the LOMC verification helped the hospitals prepare for the verification. This peer-to-peer collaboration helped enhance readiness and eliminate uncertainties. Additionally, reaching out to other hospitals undergoing similar processes provided further support and knowledge sharing.

> *"The other good part of it was being able to reach out to other people that I knew were going through it in the state because I'm very active in AWON as well as FPQC."*

Joint Commission Factors

The Joint Commission played a significant role in facilitating the process, with participants praising their helpfulness, support, and informative guidance. They appreciated that surveyors were knowledgeable, positive, and focused on teaching and sharing good practices, contributing to a positive experience overall. The availability and responsiveness of the Joint Commission representative were also appreciated, fostering clear communication and assistance throughout the application and survey process.

> *"I think the manual, the verification guide itself, I think was probably the biggest thing that really helped us prepare because like I said, it really spells everything out perfectly and we reviewed it, and reviewed it, and continuously reviewed it."*

FPQC Factors

The funding provisions and support provided by FPQC played an important role in enabling the hospitals to implement the initiative and navigate budgetary challenges. FPQC's communication, accessibility, and collaborative nature demonstrated its commitment to supporting hospitals and

providing guidance and resources throughout the process. Hospitals stated that financial assistance from FPQC served as a strong incentive and showcased their dedication to improving maternal care.

> *"I will have to say we use FPQC, all their initiatives and so resources as far as support for hypertension and postpartum hemorrhage and-- All of their initiatives, obviously, we use a great deal of and so they've been a great support as far as our quality initiatives, here through the maternal levels of care."*

> *"I also need to give a shout-out to the FPQC because if they hadn't provided seed money starting up, I don't think we would be able to move this quickly because it's much easier to go to your finance people, your leadership, and say, "Hey, it's paid for, for this. We just need to look at years, whatever." It's just so much easier to go and say, "Oh, it's covered? Okay. We could take care of the other years." That helped a lot in just getting it off the ground."*

Overall Barriers

While undergoing the LOMC verification process, hospitals also faced barriers to implementation. They shared the range of barriers including limited internal support, staff turnover, burden on staff, having limited knowledge of the Joint Commission review process (Table 11).

Table 11. Barriers identified by Participating Hospitals during the LOMC Verification Process

Barriers	Supporting Quote
• **Access to Providers' Credentials**	"I think that was a barrier because, like I said, we don't know what their credentials are, we don't know altogether what their responsibility education requirements are."
• **Limited Internal Support**	"I think my CNO had a conversation with the VP of Quality. They basically said, 'If you do this, you're on your own'."
• **Staff Turnover**	"We were really afraid that anesthesia was going to hold up our that part of that verification which is to have a 24/7 anesthesiology coverage. We didn't even know if we were going to have that because some of the anesthesiologists were leaving."
• **Burden on Staff**	"Obviously, the program itself requires several members of the team to be involved. It's not just one person who can make this happen. You do have to have people from different parts of the hospital."
• **Technology Issues**	"In the world of IT now and us having recently gone through an IT security event, well, once we finally got it figured out how to upload everything, it took us two and a half weeks to get everything to talk to each other and be allowed permission."
• **Limited Information**	"You don't really understand what it entails until you have done the application, agreed to do the site visit and then you get the documents."

• **Timeline**	"It wasn't last minute, but I say I feel like we should have had a little bit more time because that little bit more time would've given us time to feel better about the whole process and understand it."

Access to Providers' Credentials

Hospitals faced barriers in accessing providers' credentials including difficulties in obtaining comprehensive and up-to-date information, challenges in understanding education requirements, outdated job descriptions and orientation materials, and limited access to executive leaders' files during the LOMC verification process.

> *"When we were going through employee files, we did find that there were a lot of job descriptions that were assigned, department orientation, some of those things where if you were a nurse that has been working with us for 10, 20 years, they were either outdated. The week before the actual site survey, I know the nurse managers did have to go through files and just really make sure that we had everything just in case they-- and [the surveyor] did ask."*

Limited Internal Support

The team involved in the LOMC verification process had to constantly communicate and educate the providers who were associated with the hospitals on a contractual basis. The maternal care department in one of the hospitals could not get support from the quality department due to a shortage of staff. Despite these challenges, the staff took ownership of the process and proceeded independently.

> *"My quality department said no. There is a reason behind that one, their staffing. I don't think they understood it. They believed that they didn't have the staffing to support us, which they didn't."*

Staff Turnover

In one of the hospitals, the impending retirement of a [Senior Leadership Member] added to the challenges as this person was reluctant to be involved in the LOMC verification process. Another hospital was undergoing a major change in its anesthesia department, with the transition from a private anesthesia group to an in-house team. This change complicated the preparations for the verification raising concerns about meeting the required 24/7 anesthesia coverage. Furthermore, the high turnover rate, partly influenced by the impact of COVID-19, contributed to the overall staffing challenges faced by the hospital.

> *"It also was the [Senior Leader]-- they are going to retire in a year. They are going to be working from home remotely and then retire."*

Burden on Staff

Hospitals shared their experiences of facing burdens on staff from the verification process. The multiple emails by the Joint Commission with numerous documents created confusion and required extensive effort to sift through and consolidate information. Hospitals also realized that though it was time-consuming it was necessary to ensure that everything was up-to-date and prepared for the verification visit. The hospitals had to involve various team members from different departments, including physicians, midwives, leadership, and information technology, which demanded significant dedication of time and resources.

> *"I got probably five different e-mails with dozens of documents about the process, but none of them exactly the same."*

Technology Issues

Hospitals shared that they encountered technology issues while uploading and integrating documents. It took an extended period of time due to IT security events and compatibility challenge**s.** The Joint Commission's shared drive malfunctioned, requiring a shift to a new platform, which further complicated the application and document upload process for the hospitals. Additionally, IT issues at one of the hospital campuses during the day of the Joint Commission visit led to a delay in initiating the verification process.

> *"We struggled, like I said, with getting that part of it where you upload the information for them, that fake struggle, three weeks' worth of trying to get the stuff uploaded and I'm like, "Can I just mail it to them?"*

Limited Information

Limited information and understanding surrounding the LOMC verification process posed significant challenges for the hospitals. In the beginning, there was uncertainty about the requirements, objectives, and demonstrations needed to successfully complete the process. The absence of clear guidelines for supporting documents created confusion, and the lack of knowledge about the process resulted in a limited timeline for document preparation and submission. The involvement of legal review for agreement signing added a potential barrier and potential slowdown to the process.

> *"One of the things I think I don't know if you really call it a barrier, but just a challenge that I had was we didn't know what we were, like we didn't know what we were getting into. We didn't know what this would look like. There weren't really a lot of resources out there to contact anyone to help us understand it."*

Timeline

The hospitals faced challenges due to a limited timeline during the LOMC verification process. The turnaround time for preparation, after receiving the elements of performance was quick, and additional documentation requirements received after hospitals had begun the process added to

the complexity. Clearer communication and a longer timeline would have been beneficial in addressing these issues.

> *"But when we did all our webinars and we talked about it was all about signing up for the program, and we did have to submit some things just to get a date, but there was no talk about what was going to happen after we were assigned a date. Believing we knew everything, which that was an assumption on my part, which I will not make again, we only gave ourselves about six weeks from when we did our submission to when we said, "Yes, they can come at this date." It was a six-week window. When we got our date, we got an email a few days later that we had to submit all those policies and procedures and all of that order sets and all of that, which was close to or over a hundred documents. While we were very well organized and could quickly make that happen, I could foresee that being-- If I had known in advance, I would have given myself more than six weeks."*

Recommendations

Based on their recent experience with the LOMC verification process, hospitals had recommendations for key stakeholders such as The Joint Commission, and FPQC, and for other hospitals planning to apply for LOMC verification in the future (Table 12).

Table 12. Recommendations for Key Stakeholders involved in LOMC Verification Process

Recommendations	Supporting Quote
• Recommendations for FPQC	"I know they're already working on it, so that's a hard question because I know they're working on trying to put together some guidance and even maybe a little bit of a handbook or a manual and I think that that will be helpful. I think they're on the right path."
• Recommendations for the Joint Commission	"But I can't see what you actually are going to be looking at, so I don't know, and that would've been helpful. We searched everywhere in the world to try to find more information, but it wasn't until I completed the application that we could see that part."
• Recommendations for Prospective Hospitals	"I was just going to say and just making sure that you're communicating to the staff like why this is important and reminding them what's it going to look like and what we're going to be speaking to and just letting them know this is coming, you guys do this. We want to make sure that we're all speaking the same language when we're answering questions and what not."

Recommendations for FPQC

Hospitals recommended that FPQC offer coaching and support to the hospitals undergoing the LOMC verification process. They also desired that the FPQC develop guidance materials, such as a handbook or manual, to aid hospitals in the process. Hospitals suggested that they should be

recognized for getting LOMC verified, at the platforms like Florida Hospital Association. They mentioned that it would motivate other hospitals to participate.

> *"It's the other thing that might help is that when they're having the FHA meetings, that they give some sort of recognition to the hospitals that completed this. I think that's going to be very good because that's where the CEOs and all those C people go. They're going to be like, "Why didn't the other hospital do it? Why did they get to opt up? Why did only one of our hospitals do it?"*

> *"Definitely continue to promote it (LOMC verification), because it's beneficial to everybody, the patient ultimately. When we work on any type of other initiative, we have coaches. It would be great if a hospital going through it had a coach to help them to go through it. It would've been so supportive if I had somebody who'd gone through it before to say, "Hey, you need this. Yes." Maybe do weekly meetings with them as they apply and go through it. "Yes, you've got all the things that you need. No, they're going to look for this and that." That piece is helpful."*

Recommendations for the Joint Commission

Hospitals suggested that the Joint Commission should streamline the process by providing clear guidelines and expectations for hospitals, including concise instructions on what needs to be reviewed and submitted. Furthermore, they wanted the Joint Commission to provide a clearer understanding of the time commitment required and potential IT difficulties that could arise in the process of application. Hospitals also wanted the release of the manual or requirements before the application stage, allowing hospitals to better understand the evaluation criteria and requirements.

> *"I think maybe just if there's a more streamlined guideline that says you don't have to sell everything out, but just says, these are the areas that we need you to review. These are the things that we needed to submit. These are things we need to get ready, and I think that would have helped in the beginning."*

> *"Then, if you run into IT difficulties, which we did, it got even less than two. Knowing that, maybe making that list of things more face up in the beginning of the process versus after you get your date, so people have an understanding of what that time commitment is. I have a very large leadership team, and as such, we piecemealed it out and we made it happen, but not every organization has that luxury. Being very transparent with what the obligations and what the time commitment would be, I think would be a good thing for future people who go through this."*

Recommendations for Prospective Hospitals

Hospitals that just underwent the LOMC verification process recommended that future hospitals undergoing this process must focus on reviewing their policies and processes regularly, preloading, and sharing relevant documentation with the surveyor. They impressed upon

hospitals being well-prepared and organized. Regular communications with the leadership and time management were some of the consistent recommendations for the prospective hospitals.

> *"I think I would start with just getting that guide, first and foremost. Getting your team together, ensuring that you're communicating well with the leadership of the hospital to explain what it is, why it's important. Then set very regular meetings and assuring that you're pulling in the right people to make sure that you're meeting all of those things in that guide, to get to that endpoint. Don't procrastinate. Make sure [chuckles] you're giving yourself plenty of time too. It really just takes time to get all of that together. There's a lot of things you're going to want to do to get ready for it. Just go step by step and regular meetings, just slowly checking things off the box, meeting regularly, and good communication."*

> *"You can't go into this just thinking it's like an unannounced survey and they're going to come in, you're going to be able to show them everything. The preparation is key because a lot of the survey or the verification really was discussion. It was confident discussion to be able to say this is what our process is and then back it up with the document. It's a lot of that, and so if you're not prepared, if you haven't looked at everything, if you don't know your transfer agreements, if you don't know your SOPs and policies and that you have something that meets what they're looking for, I think you could end up having some barriers that you weren't expecting."*

DISCUSSION

This evaluation employed a mixed methods approach to examine the LOMC verification program experiences among early adopting hospitals in Florida. Findings contribute to the limited current knowledge on LOMC designation as a strategy to improve the quality of maternal care. A study by Zahn et al., (2018) reported the experiences of developing and piloting ACOG's level of maternal care in 14 hospitals across three states (Georgia, Illinois, and Wyoming). However, the study was not reported from the hospital perspective but from the perspective of the team that developed and designed LOMC (Zahn et al., 2018). Additional studies assessing LOMC program have explored providers' attitude and readiness for regionalized care (Easter et al., 2021; Wenstrom et al., 2017), and barriers to disclosing LOMC designation among birthing centers (Racine et al., 2021). A recent study explored how hospital could self-identify their level of care using administrative data (Handley et al., 2021); although Madni et al., (2021) noted that hospitals were likely to overestimate the level of care they provide in self-reports as compared to LOMC assessed by the standardized CDC tool called CDC LOCATe®.

Overall, the early adopting hospitals in Florida in this evaluation received overwhelming support from both their administration leadership, and the first year funding support that was made available through the FPQC. Participants were motivated to adopt LOMC to validate their current level of care and thus welcomed designation as the needed badge of proof for the quality of maternal care they already know they provide. Hospitals did not have to make a lot of changes; however, reviewing all policies and processes related to the care of OB patients to make sure they aligned with LOMC standards was time and labor intensive. Interestingly, contrary to the previous finding where most hospitals were likely to overestimate their level of care (Madni et al., 2021), almost all hospitals in the Florida pilot program were verified for their self-assessed level of care.

The Joint Commission, the FPQC, and peer hospitals going through the same process were vital sources of information and support throughout the process. Internal collaborative work encouraged peer learning and ensured consistency across multiple disciplines. The site visit was an opportunity for sharing best practices with strong positive reviews on the Joint Commission surveyors' collegiality and expertise. Upon reflection, the LOMC verification experience was also an opportunity to take stock of all OB services and identify areas of improvement. Most hospitals committed to undergoing re-verification with some considering seeking a higher level of care in future.

Having an established QI culture, availability of internal resources and personnel, and external structural support were noted as key pieces for implementation success. Given the relative novelty of the ACOG levels of care administered by the Joint Commission, uncertainty on the structure of the process was a frequently mentioned challenge. Furthermore, because of the limited verification focus on maternal care, participants strongly recommended that all Florida hospitals should get verified and had already begun promoting the program in-network hospitals.

Strengths and Early Successes Experienced During Implementation

Based on triangulating findings related to hospitals' experiences through the evaluation surveys and interviews, several factors were identified related to the strengths and early successes experienced during the LOMC verification (Table 13).

Table 13. Strengths and Early Successes During Implementation

Strengths/ Early Successes	Description
Leadership Support	• Leadership supported the maternal care teams to go for the LOMC verification and provided the necessary support. • Leadership showed their commitment by being present on the day of the Joint Commission site visit.
Mission Alignment	• The participating hospitals realized that the Joint Commission had the same mission as their own hospital, which is to provide the best care to mothers and babies. • Hospitals had an understanding that this was a validation of the quality work that they were already doing.
Hospital Champion	• Having a person from the maternal care unit lead the LOMC verification preparation was a huge factor in the success of this initiative. • In many hospitals, someone from the maternal care unit took the initiative to convince the leadership for getting LOMC verified.
Motivated Staff	• Staff involved in direct maternal care played a significant role in the success of LOMC verification, as they were able to showcase their skills and expertise in patient care to the surveyors. • Staff were motivated to be part of an initiative that they could be proud.
Involvement of Ancillary Department	• The Joint Commission LOMC verification is based on holistic maternal care provision. Hence, ancillary departments such as emergency, blood bank, diagnostics, respiratory, etc., must be prepared for the visit.
Gap Analysis	• Conducting a detailed formal gap analysis of all the policies and procedures pertaining to maternal care is very helpful to prepare for the LOMC verification site visit.
Support of the FPQC	• Funding by the FPQC for the first round of the LOMC verification was a boost for participating hospitals. • FPQC's support through the LOMC initiative helped in understanding the verification process played an important role. • Hospitals with previous connections with FPQC felt comfortable applying for the LOMC verification.
Support of the Joint Commission	• Having a designated person from the Joint Commission to help with application process was helpful for the hospitals.

Key Barriers and Future Recommendations

Based on triangulating findings related to hospitals' experiences through the evaluation surveys and interviews, key barriers and corresponding recommendations are provided in Table 14.

Table 14. Recommendations to address key barriers

Key Barriers	Future Recommendations
Access to Providers' Credentials	• Keep the credentials of all the concerned authorities ready along with any certifications received by them.
Limited Internal Support	• Involve leadership and other key stakeholders from the beginning. • Involve the ancillary departments and prepare them with the same vigor as the maternal care unit. • Make a presentation on the LOMC verification and its benefits to get their buy-in.
Staff Turnover	• Involve the staff that can be present at the time of LOMC verification site visit.
Burden on Staff	• Form a larger team and delegate tasks. • Relieve anxieties by informing them that this is the validation of work they do on an everyday basis.
Technology Issues	• Involve the IT department from the beginning of the process. • Have a designated IT person for the day of the Joint Commission site visit. • Understand beforehand that uploading documents is a relatively lengthy process. • Inform the signing authority beforehand that they would need to sign the application before submission.
Limited Information	• Participate in the information sessions by FPQC and the Joint Commission. • Contact other hospitals that have undergone the LOMC verification. • Refer to FPQC's evaluation (this technical report) to learn from the experiences shared by participants.
Timeline	• Understand that after the submission of the application, the Joint Commission site visit happens in 90 days, hence prepare beforehand. • Keep track of all the discussions and processes conducted for verification preparation as meeting minutes to avoid repetition of activities.

Limitations

Although the mixed methods approach of this implementation evaluation allowed for many aspects of the LOMC verification process to be examined among the pilot sample in Florida, limitations must be considered. First, findings may not be representative of all the hospital stakeholders who contributed towards LOMC verification as only a few representatives from each hospital shared their experiences. For example, no representatives from the ancillary departments participated in the interviews. Interviewing stakeholders involved at each level, from direct patient care to C-suite, could provide a deeper understanding of the hospitals' experiences. Second, hospitals had started planning to participate more than 6 months before the time of the interview. Hence, there is a possibility of recall bias related to hospitals' experiences. Third, most of the hospitals participating in the verification were either a part of hospital network or were larger hospitals. Applying learnings from their experiences to smaller hospitals may not be appropriate. Fourth, although the evaluation team conducting the interviews were not core FPQC staff, social desirability by the participants could have led to information bias.

Strengths

There are several strengths of this evaluation. First, this evaluation was guided by two prominent implementation science frameworks, Consolidated Framework for Implementation Research (CFIR) and Exploration, Preparation, Implementation, and Sustainment (EPIS). The application of these frameworks provides rigor, and structure and facilitates the transferability of findings to other contexts. Second, the mixed methods approach provided a comprehensive understanding of the LOMC verification process, allowing for a more nuanced interpretation of the findings. Third, the evaluation team had the opportunity to observe several Joint Commission verification site visits. Although observational data was not collected, this experience provided them with critical context and a deeper understanding of the process which assisted in designing evaluation instruments and when interpreting evaluation findings. Fourth, in-depth interviews were conducted online. This allowed participants to engage comfortably from their preferred environment, reducing the intimidation of the presence of the interviewer, and may have provided more authentic responses.

Conclusion

This implementation evaluation examined the experiences of hospitals that participated in the pilot LOMC verification program in Florida. This report documented the factors influencing hospitals' decision to participate in the verification, and facilitators and barriers experienced during all phases of the process. This evaluation also elicited lessons learned and developed recommendations to guide future iterations of the LOMC verification program implementation. Overall, the evaluation found that although funding from FPQC played a significant role in hospitals' decision to participate, supportive hospital leadership, having an in-house champion, willingness to get validation for quality work, and experience with QI initiatives played significant roles in applying for the LOMC verification. Many participants agreed that more information from the Joint Commission about the application and timelines would help hospitals to prepare for the verification. Having a formal team, conducting a gap analysis to review policies and procedures, and involvement of the ancillary departments were identified as key

factors in the success of LOMC verification. Hospitals appreciated the knowledgeable and amiable nature of the Joint Commission surveyors. These findings may help future hospitals in preparing for the LOMC verification and provide elements for the Joint Commission and the FPQC to consider in their roles in this process. Ultimately, the LOMC verification should lead to improvement in maternal healthcare delivery, including preventing severe maternal morbidity and mortality across the state of Florida.

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