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Why Michigan Needs Maternal Levels of Care

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Objectives

•Discuss how obstetric facilities can prepare to provide risk-appropriate care to decrease maternal morbidity and mortality.

• Explain the Levels of Maternal Care designation in AIM bundle implementation to decrease health disparities and improve outcomes.

•Describe the Levels of Maternal Care verification process.

I have no disclosures

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Quick Background

- **A public-private consortium/institutional and healthcare professional (DHHS, MHA, MI Section ACOG, AHWONN et al) since 2015**

- **Four Bundles**
  - **Obstetric Hemorrhage – revised version**
  - **Severe Hypertension – revised version**
  - **Maternal Sepsis – started with MI version; transitioning to AIM version with NIH grant support**
  - ***Safe reduction of primary caesarean sections*** Obstetrics Initiative

    The Obstetrics Initiative (OBI) is a data-driven quality improvement project working to support vaginal delivery and safely reduce the use of cesarean delivery among low-risk births with improved or stable rates of maternal and neonatal morbidity.

Obstetric Hemorrhage Patient Safety Bundle

Response — Every Event

Utilize a standardized, facility-wide, stage-based, obstetric hemorrhage emergency management plan, with checklists and escalation policies for stage-based management of patients with obstetric hemorrhage, including:

- Advance preparations made based on hemorrhage risk (e.g. cell saver, blood bank notification, etc.)
- Evaluating patients for etiology of hemorrhage;
- Use of obstetric rapid response team;
- Evidence-based medication administration or use of nonpharmacological interventions;* and
- Appropriate activation of expanded care team and clinical resources as necessary.

Provide trauma-informed support for patients, identified support network, and staff for all obstetric hemorrhages, including discussions regarding birth events, follow up care, resources, and appointments.*

Reporting and Systems Learning — Every Unit

Establish a culture of multidisciplinary planning, huddles, and post-event debriefs for every obstetric hemorrhage, which identify successes, opportunities for improvement, and action planning for future events.

Perform multidisciplinary reviews of serious complications per established facility criteria to identify system issues.*

Monitor outcomes and process measures related to obstetric hemorrhage, with disaggregation by race and ethnicity due to known racial and ethnic disparities in obstetric hemorrhage outcomes.

Establish processes for data reporting and the sharing of data with the obstetric rapid response team, care providers, and facility stakeholders to inform care and change care systems, as necessary.*

Respectful, Equitable, and Supportive Care — Every Unit/Provider/Team Member

Include each patient that experienced an obstetric hemorrhage and their identified support network as respected members of and contributors to the multidisciplinary care team and as participants in patient-centered huddles and debriefs.*

Engage in open, transparent, and empathetic communication with pregnant and postpartum people and their identified support network to understand diagnoses, options, and treatment plans, including consent regarding blood products and blood product alternatives.*

*See **Obstetric Hemorrhage Element Implementation Details**

Severe Hypertension in Pregnancy Patient Safety Bundle

Readiness — Every Care Setting

Develop processes for management of pregnant and postpartum patients with severe hypertension, including:

- A standard protocol for maternal early warning signs, diagnostic criteria, monitoring and treatment of severe preeclampsia/eclampsia (including order sets and algorithms)
- A process for the timely triage and evaluation of pregnant and postpartum patients with severe hypertension or related symptoms
- A system plan for escalation, obtaining appropriate consultation, and maternal transfer as needed

Ensure rapid access to medications used for severe hypertension/eclampsia with a brief guide for administration and dosage in all areas where patients may be treated.

Conduct interprofessional and interdepartmental team-based drills with timely debriefs that include the use of simulated patients.

Develop and maintain a set of referral resources and communication pathways between obstetric providers, community-based organizations, and state and public health agencies to enhance services and supports for pregnant and postpartum families.

Develop trauma-informed protocols and provider education to address health care team member biases to enhance equitable care.

Recognition & Prevention — Every Patient

Assess and document if a patient presenting is pregnant or has been pregnant within the past year in all care settings.

Ensure accurate measurement and assessment of blood pressure for every pregnant and postpartum patient.

Screen for structural and social drivers of health that might impact clinical recommendations or treatment plans and provide linkage to resources that align with the pregnant or postpartum person's health literacy, cultural needs, and language proficiency.

Provide ongoing education to all patients on the signs and symptoms of hypertension and preeclampsia and empower them to seek care.

Provide ongoing education to all health care team members on the recognition of signs, symptoms, and treatment of hypertension.

All Michigan Birthing Hospitals – Severe Maternal Morbidity (excluding transfusions) Before and After MI AIM (As Reported in our Impact Statements)

WIN

Measure	2011-2015 (Pre-MI AIM)	2016-2021 (Post-MI AIM)	Improvement
Hemorrhage	11.3%	5.2%	**54.3%**
Hypertension	7.7%	6.5%	**15.3%**
All	0.8%	0.8%	**6.4%**

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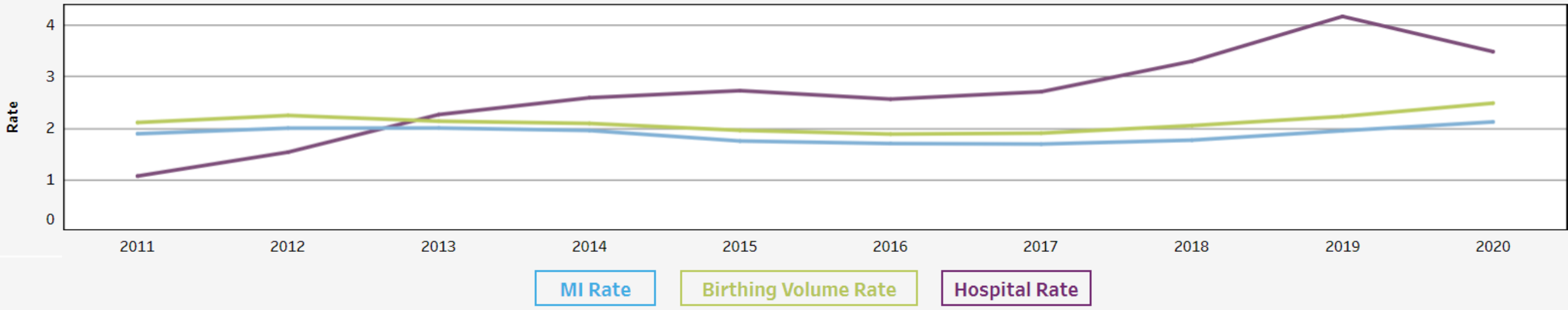
But Racial Disparities remain

Michigan Birthing Hospital | MIAIM036

2020 | O1-ALL: Overall Severe Maternal Morbidity | African American

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Numerator	4	7	11	12	14	13	13	17	23	18
Denominator	377	459	488	465	515	509	482	517	553	518
Hospital Rate	1.06	1.53	2.25	2.58	2.72	2.55	2.70	3.29	4.16	3.47
MI Rate	1.88	1.99	1.99	1.95	1.74	1.69	1.68	1.76	1.94	2.11
Birthing Volume Rate	2.10	2.24	2.13	2.08	1.95	1.88	1.89	2.04	2.22	2.48



MI AIM Response --

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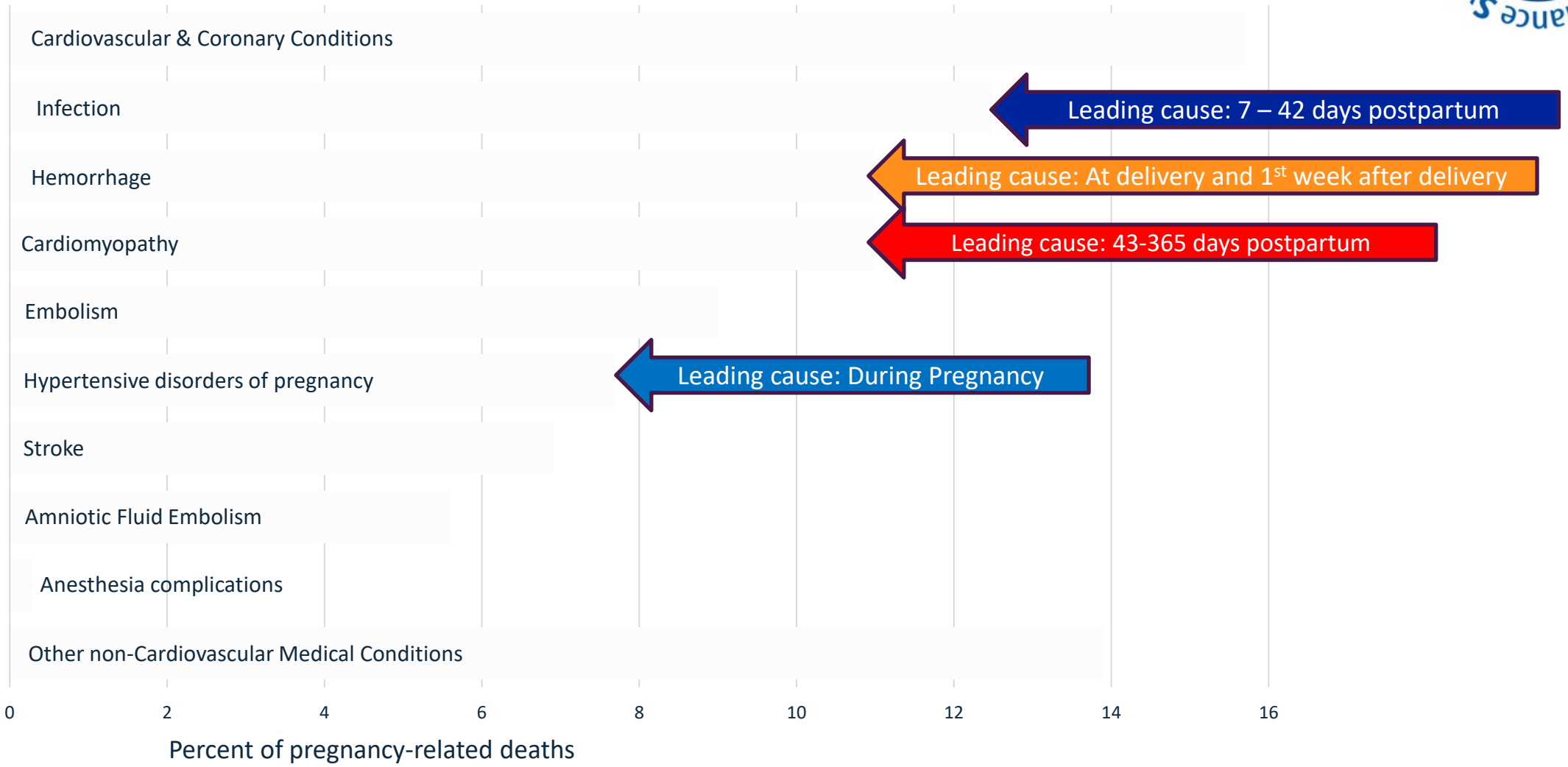
- Received $500,000 to go to the 10 of the 23 birthing hospitals in Region 10 (Metro Detroit) from MHEF
  - Award criteria: **SMM rate, B/W disparity, MI AIM participation and application quality (the plan), including sustainability**

- Education, bundle implementation support that addresses systemic racism

- Formalizing **Levels of Maternal Care** into bundle implementation

PMSS: Information.



Petersen EE, Davis NL, Goodman D, et al. *Vital Signs:* Pregnancy-Related Deaths, United States, 2011–2015, and Strategies for Prevention, 13 States, 2013–2017. MMWR Morb Mortal Wkly Rep 2019;68:423–429

How can Levels of Maternal Care Impact Systemic Racism?

- Formalized process when to escalate care
- Reduces implicit bias for escalation of care
- Most impactful for conditions that are causes of death for black and native American pregnant persons

Strategies for Implementation of Regionalized Risk-Appropriate Maternal Care on a National Scale | August 2022

- Assuring that high risk pregnant persons receive care in facilities prepared to provide the required level of specialized care can improve outcomes

- identifying these high-risk conditions or risks for these conditions during the prenatal period could allow for a referral or transport to a facility with an appropriate level of maternal care

- successful implementation of LoMC could have the potential to advance health equity

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LoMC

Levels of Maternal Care

Care in the right place and right time

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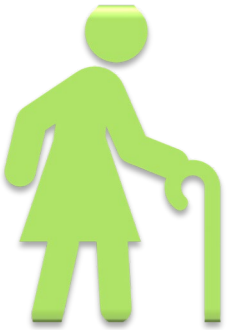
Levels of Care in Medicine

Neonatal Intensive Care Unit

Intensive Care Units

Trauma centers

Post acute care



Many more....

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LoMC Obstetric Care Consensus

The American College of Obstetricians and Gynecologists

WOMEN'S HEALTH CARE PHYSICIANS

Society for Maternal•Fetal Medicine

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LoMC Obstetric Care Consensus

- Originally published (with SMFM): 2015
- Most recent revision published in 2019

- Framework for regional hospital relationships

- Standardized description of facility capabilities, resources, personnel
- Encourage development of collaborative relationships in regions
- Ensure that if services need to be escalated, there is a seamless process
  for consultation or transfer

- “Care at the right place at the right time”

2017 Levels of Maternal Care Pilot Program

multidisciplinary team piloted this program with 14 facilities that had completed LOCATe across Georgia, Illinois, and Wyoming

14 sites surveyed

50% of sites had same level of care as designated by LOCATe

2019 LoMC Obstetric Care Consensus Re-emphasizes:

Support by Level III/IV hospitals for Level I/II hospitals

Levels of maternal and neonatal care may not match within facilities

Each level of care reflects required minimal capabilities, physical facilities, and medical and support personnel

Each higher level of care includes and builds on the capabilities of the lower levels

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The Levels

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The goal of Levels of Maternal Care is to reduce preventable maternal morbidity and mortality by ensuring equitable and seamless access to high-quality, risk-appropriate maternity care

- Not a care bundle
- A framework for regionalization of care
- Embedded in AIM bundles as the process to “escalate care”
- Care at the right place and right time

LoMC Examples

Level I

Limited Ob ultrasound
Can initiate MTP
Anesthesia provider available

Level II

CT, MRI, Ob and non-Ob U/S
Interpretation available

Level III

All blood products in house all Ob imaging and fetal assessment, non-Ob u/s
IR, stat teams to ventilate, monitor and assist with ICU

Level IV

All on-site services med/surgical services for complex Ob care, Ob ICU, MFM and Ob anesthesia

ACOG & The Joint Commission

Maternal Levels of Care Verification

The Joint Commission

ACOG

- Launched Maternal Levels of Care Verification Program in January 2022
- Criteria (“standards”) by level that aligns with the ACOG/SMFM LoMC Obstetric Care Consensus

Verification Process Overview ACOG + TJC

- ACOG/SMFM Obstetric Care Consensus
- Levels of Maternal Care
- Levels 1-4
- Each Level must have ALL elements of the preceding level
- Hospital self-designation through CDC toolkits tend to over-estimate

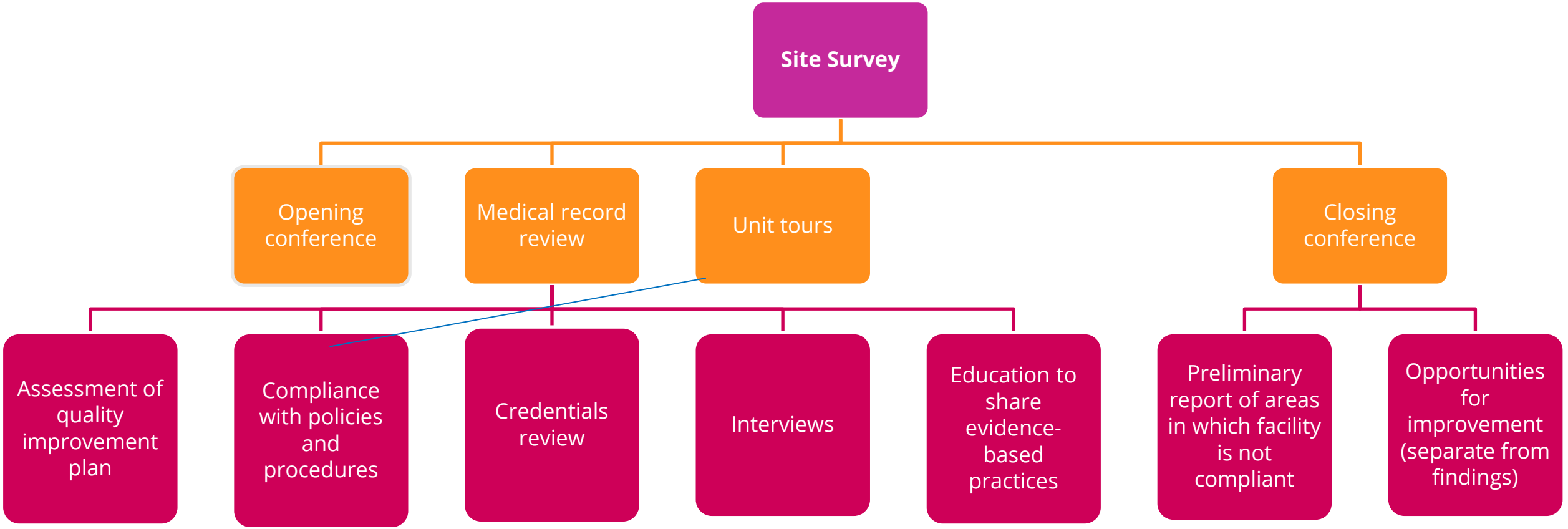
TJC conducts on-site surveys

- Basis for care level designation
- Open to acute care and critical access hospitals
- Three year verification cycle

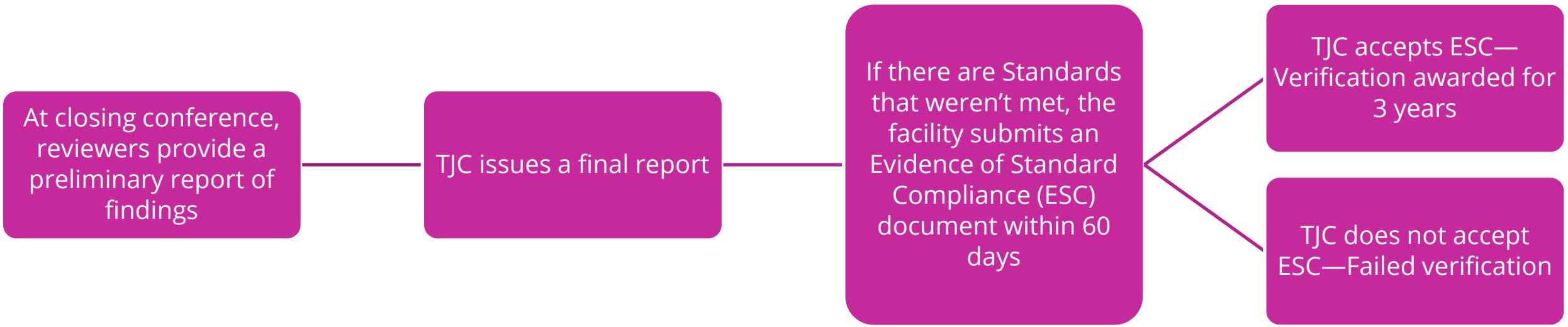
Pre-Survey Process

- Contact TJC at verification@jointcommission.org
- Review the Standards in E-dition®
- Schedule a ready date
- Complete an application on the Connect® portal
    - Submit clinical practice guidelines
    - Provide information on your quality improvement initiatives
- Prepare for the site visit
    - Use the Review Process Guide on the Connect® portal

Onsite Survey Process



Post-Survey Process

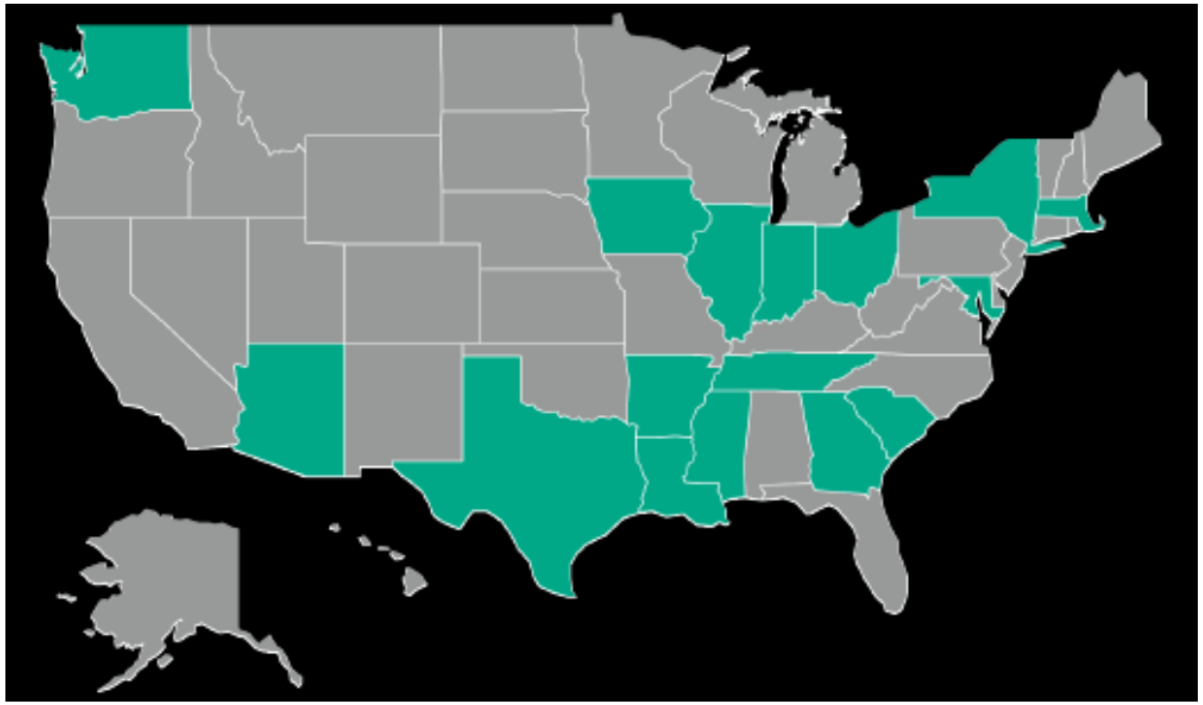


LoMC Uptake

ACOG Implementation Map

Green: state has LoMC guidelines

Gray: state does not have LoMC guidelines



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Questions?

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Thank you

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