



**Bureau of Family
Health & Nutrition**



Recommendations to Prevent Pregnancy-Related Deaths

2020-2022

The Massachusetts Maternal Mortality and Morbidity Review Committee (MMMRC)

Since 1997, the Massachusetts Department of Public Health (DPH) has convened the MMMRC to review pregnancy-associated deaths, study the incidence of pregnancy complications and maternal morbidity, and make recommendations to improve maternal outcomes and eliminate preventable pregnancy-related deaths. The DPH Maternal Mortality and Morbidity Review Team (MMMRT) provides staffing support for the MMMRC. The goal of the MMMRC review is to determine whether the death was related to pregnancy, identify factors that contributed to the death, assess whether the death was preventable, and make recommendations to prevent maternal mortality and morbidity. Additional information about the MMMRC and its review process is available on the [MMMRC website](#).

The recommendations in this report are based on reviews of deaths that occurred during [2020–2022](#). The MMMRC hopes these data and recommendations can help guide policymakers and other key partners in our shared work to end maternal mortality, eliminate inequities in maternal health outcomes, and honor individuals and communities impacted by pregnancy-associated deaths.

Recommendations to Prevent Pregnancy-Related Deaths, 2020-2022

During the review of each death, the MMMRC developed recommendations to prevent future maternal morbidity and mortality. This section summarizes recommendations from reviews of the 39 pregnancy-related deaths. The recommendations specifically focus on pregnancy-related deaths, as this aligns with the MMMRC's purview and the Committee is uniquely qualified to provide population-based recommendations for prevention of deaths related to pregnancy. The MMMRT reviewed these recommendations to identify common themes, which are summarized in the following sections. It is important to note that funding is critical for the implementation, success, and sustainability of these recommendations. Through Achieving this may include government-sponsored programs or mandating private insurers to cover costs and provide incentives for participation in programs.

Increase supports for pregnant and postpartum individuals with substance use disorder

Between 2020-2022, mental health conditions were the leading cause of pregnancy-related deaths, accounting for one-third of all cases. Notably, 100% of these cases involved co-occurring substance use disorder. Moreover, the MMMRC determined that substance use disorder was a circumstance affecting 41% of pregnancy-related deaths across all causes.

Recommendations

- Support investments in infrastructure to increase and enhance the workforce providing treatment and care of people with substance use disorder.
- Provide dedicated funding for healthcare providers to supply peripartum and postpartum patients with an opioid use disorder and/or those with a recent overdose history with Narcan (naloxone), fentanyl test strips, and safer consumption materials. In addition, encourage patients and families to have Narcan readily accessible.¹
- Ensure healthcare providers in all areas of healthcare can access multidisciplinary care for people with substance use disorder, including those with complex medical needs. Healthcare personnel should have the capacity to provide the full range of treatment options, guided by a shared decision-making model, for patients who are actively using substances during pregnancy, birth, or postpartum.
- Offer patients with medical management of withdrawal symptoms (if desired, even if this includes a longer postpartum stay) and a "warm handoff" to a treatment facility with transportation arranged if needed.

Increase access to mental health screening and treatment for pregnant and postpartum people

Mental health and substance use disorder often co-occur. According to the 2021 National Survey on Drug Use and Health, nearly one in three adults had either a substance use disorder or any mental illness in the past year, and 46% of

¹ <https://www.mass.gov/doc/harm-reduction-services-in-healthcare-settings-for-people-who-use-drugs/download>

young adults aged 18-25 years had either a substance use disorder or any mental illness². Integrated treatment approaches are necessary for people with both mental health conditions and substance use disorders. Furthermore, expanding funding is essential to support screening and management of mental health conditions during pregnancy and the postpartum period. This is especially critical during seven days to one year postpartum, as more than 60% of pregnancy-related deaths with an underlying cause of mental health conditions occur during this timeframe.

Recommendations

- State agencies that provide direct services to clients (e.g., Department of Children and Families, Department of Public Health, Department of Mental Health) should implement trauma-informed policies and increase training on behavioral and mental health for all staff. Training should include guidance on referring clients to treatment for substance use and perinatal and postpartum mental health disorders, as needed.
- All perinatal and primary care providers should engage their in-house perinatal psychiatry resources or MCPAP for Moms³ to better facilitate access to mental health care and resources during pregnancy and postpartum.
- MassHealth should increase funding for postpartum programs to promote continuity of care in the postpartum period, particularly for people with mental health conditions or substance use disorders.
- Invest in the recruitment and capacity of the mental and behavioral health workforce, as well as the expansion of the expanded behavioral health student loan forgiveness program.⁴

Support efforts to improve coordination and continuity of care

Care coordination is a patient- and family-centered, team-based approach that helps patients navigate the health care system efficiently to meet their needs and achieve optimal health outcomes. Continuity of care is the process of ensuring a patient receives consistent, coordinated health care over time and across different settings and providers. From 2012-2022, issues with continuity of care and care coordination contributed to one in five pregnancy-related deaths. Based on their reviews, the MMMRC developed recommendations focused on ensuring warm handoffs, especially for high-risk individuals, improving gaps in care, and increasing community services and support for pregnant and postpartum people.

Recommendations

- Healthcare systems should ensure patients are receiving individualized, ongoing postpartum care for 12 months, especially among individuals at higher risk of care disruption. This includes patients with late entry to prenatal care, multiple missed appointments, or those who left the hospital under self-directed discharge following delivery. To maintain connection with these patients, strategies might include integrating doulas, healthcare navigators, case managers, or community health workers into care teams.
- Facilities and providers should promote care coordination by creating multidisciplinary teams or strengthening referral relationships between OB/GYN, midwives, primary care providers, behavioral health providers, substance use disorder (SUD) treatment providers, specialists, pediatricians, doulas, community health workers, social workers, harm reduction programs and others during and following pregnancy.
- Promote funding to expand community-based services and supports during the perinatal and postpartum periods, including doulas, community health workers, home visiting, recovery support specialists, harm reduction programs, and case management for people with complex needs, SUD, or others that would benefit.

Implement initiatives that improve standardization, quality, and coordination of healthcare

² U.S department of Health and Human Services. SAMHSA Announces National Survey on Drug Use and Health (NSDUH) Results Detailing Mental Illness and Substance Use Levels in 2021. Nov 2024. <https://www.hhs.gov/about/news/2023/01/04/samhsa-announces-national-survey-drug-use-health-results-detailing-mental-illness-substance-use-levels-2021.html>

³ MCPAP for Moms: <https://www.mcpapformoms.org/>

⁴ <https://www.marepay.org/apply-expanded-behavioral-health-ma-repay-program>.

Ensuring health care facilities adhere to standards of medical care and participate in quality improvement initiatives like safety bundles, obstetric early warning systems, and protocols and checklists may help address differences in care quality and reduce disparities in maternal mortality⁵. MMMRC recommendations include supporting funding for evidence-based programs related to the leading causes of pregnancy-related deaths, promoting standardization of care, and strengthening the workforce and their capacity to provide high-quality care.

Recommendations

- Support funding for the Perinatal Neonatal Quality Improvement Network (PNQIN) to advance training, education, and implementation of evidence-informed practices for the management of pregnancy and postpartum complications, including implementation of the Alliance for Innovation on Maternal Health (AIM) safety bundles. Based on the review of 2020-2022 deaths, key focus areas for quality improvement projects include:
 - Substance use
 - Mental health
 - Obstetric hemorrhage
 - Severe hypertension in pregnancy
 - Cardiac conditions in obstetric care
- Incentivize healthcare facilities to promote standardized management of clinical situations (e.g., AIM bundles, clinical algorithms/protocols, checklists) to ensure all patients with similar clinical presentations receive consistent evidence-based care. In addition, increase provider readiness to respond to emergency situations (e.g., hemorrhage, ectopic pregnancy) using periodic drills and simulation exercises. Incentives should come from funding sources like the MassHealth Equity project as well as from commercial insurance.
- Strengthen the quality and availability of perinatal care by ensuring it's comprehensive, coordinated, and adequately staffed by a skilled and diverse workforce. This includes having qualified providers and community health workers available for surge capacity during times of high demand (e.g., COVID-19).
- Dedicate funding for the ambulatory care continuum both before and after pregnancy. As Massachusetts state and national data show, most maternal deaths occur outside of the hospital or other birthing settings. Preventing maternal mortality and promoting healthy and safe pregnancies requires a continuum of care that includes ambulatory care.

Support efforts to screen for and address the social determinants of health

There are striking racial and ethnic inequities in maternal mortality, with Black non-Hispanic individuals having the highest rates of pregnancy-related mortality in Massachusetts. These inequities stem in part from structural and institutional racism, which drive barriers to health care access and marginalization among people from racial and ethnic groups. Social determinants of health, including economic stability, educational attainment, housing, transportation, and food security— also drive disparities in health outcomes across insurance status. As MassHealth is income-based, and economic stability is highly correlated with health through wealth, employment, food security, and housing stability, MassHealth participants are more likely to be impacted by social determinants of health due to limited financial resources. When reviewing cases, the MMMRC assessed the social and environmental conditions in which the decedents experienced that may have been drivers of maternal mortality. By examining the social determinants of health, the MMMRC aims to identify root causes of inequities and make recommendations for structural changes. The MMMRC made recommendations aimed at addressing barriers to health care access, including improving access to transportation for perinatal visits and postpartum care, particularly for residents in rural areas.

Recommendations

⁵ Howell EA, Zeitlin J. Improving hospital quality to reduce disparities in severe maternal morbidity and mortality. *Seminars in Perinatology*. Aug 2017;41(5):266-272. doi:10.1053/j.semperi.2017.04.002

- State agencies and local organizations should ensure that homeless shelters and other housing options provide safe spaces for pregnant and postpartum people experiencing homelessness, including individuals with or without child custody. Insurers should cover navigation services for individuals with transportation barriers and include transportation as a covered benefit.
- Insurers should provide incentives to healthcare systems to increase availability of social workers and other trained staff to screen patients for social determinants of health. In addition, these staff can connect patients with social services that meet their needs, such as transportation, housing, childcare, insurance coverage, and community support groups.

Support efforts to promote and ensure equitable, respectful, and trauma-informed perinatal care and education

Respectful maternity care is essential to high-quality healthcare, centering on harm and mistreatment prevention, effective communication, and equitable care. The MMMRC determined that discrimination, defined as treating someone less or more favorably based on the group, class, or category they belong to resulting from biases, prejudices, and stereotyping, was a factor contributing to more than 40% of the deaths. In response, the MMMRC recommends efforts to promote respectful, trauma-informed care and healing-centered care delivery.

Recommendations

- Ensure that healthcare and Emergency Medical Services personnel are trained annually to provide trauma-informed care and healing-centered engagement using a standardized evidence-based curriculum. This could be done through professional organizations, licensure standards, or legislation. Providers should be mindful of their patients' trauma, delivering trauma-informed responses during high-stress trigger points (e.g., loss of custody, court dates) and ensuring shared decision-making with the patient.
- Providers should deliver identity-affirming care, respect all aspects of a patient's identity, and recognize their own biases when caring for patients (e.g., patients of size, people with disabilities, LGBTQ+, people of color, people who speak languages other than English, etc.). This includes having services and equipment that are - accessible for all patients, including patients of size and those with disabilities.
- Healthcare systems should ensure health information, especially warning signs of potential serious conditions, are communicated in clear, accessible ways to patients and their families (where appropriate). Ideally, these communications systems should extend across all care settings, including ambulatory care systems.

Provide access to the full range of contraceptive methods and counseling

Comprehensive and appropriate reproductive and contraceptive healthcare counseling can empower individuals to make informed decisions about their health. Learning about contraceptive options can be lifesaving, especially for those seeking to avoid a high-risk pregnancy. The MMMRC has made recommendations focused on counseling, improved access to contraception, tubal ligation, and abortion services.

Recommendations

- Healthcare systems should offer patients living in rural settings enhanced access to family planning services (e.g., transportation, telehealth follow-up).
- Healthcare systems should establish protocols to provide postpartum contraception based on the patient's preferences and choice.
- All insurance providers should cover long-acting reversible contraception (e.g., IUD, implant) immediately after birth and during the postpartum stay.
- Insurers should incentivize providers to ask patients about pregnancy intentions at every wellness visit and offer contraception at that visit or a referral to a provider who can offer contraceptive options.