Maternal health: Expanding on the AMA's recommendations to reduce deaths and improve outcomes
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Executive summary</td>
<td>2</td>
</tr>
<tr>
<td>Address the leading causes of maternal mortality and morbidity</td>
<td>3</td>
</tr>
<tr>
<td>Recommendation 1a: Ensure feasibility and implementation of Core AIM Patient Safety Bundles and checklists</td>
<td>3</td>
</tr>
<tr>
<td>Recommendation 1b: Address social determinants of health (SDOH) within the pregnant and postpartum population by enhancing medical-legal partnerships</td>
<td>6</td>
</tr>
<tr>
<td>Leverage digital health to address the leading causes of maternal mortality and morbidity</td>
<td>8</td>
</tr>
<tr>
<td>Recommendation 2a: Promote telehealth and home monitoring during pregnancy and the postpartum period and address barriers to providing remote patient care</td>
<td>8</td>
</tr>
<tr>
<td>Recommendation 2b: Create consistent definitions and ensure the acquisition of the right type of data</td>
<td>11</td>
</tr>
<tr>
<td>Strengthen the resources available to support physicians in providing complex care to higher-risk patients</td>
<td>16</td>
</tr>
<tr>
<td>Recommendation 3a: Address physician workforce needs in maternity care</td>
<td>16</td>
</tr>
<tr>
<td>Recommendation 3b: Address physician education needs in maternity care</td>
<td>19</td>
</tr>
<tr>
<td>Recommendation 3c: Utilize new payment models to prevent maternal deaths</td>
<td>20</td>
</tr>
<tr>
<td>Conclusion</td>
<td>23</td>
</tr>
</tbody>
</table>
Introduction

As the largest professional association for physicians and the umbrella organization for state and national specialty medical societies, the American Medical Association is committed to working to support federal and state efforts to reduce and prevent the rising rates of maternal mortality and serious or near-fatal maternal morbidity.

Social determinants of health (SDOH) are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies and political systems. The World Health Organization (WHO) defines health equity as the “absence of unfair and avoidable or remediable differences in health among social groups.” This definition clarifies that inequities and disparities do not have to exist, but that inequities are produced; they do not just happen; the people who are negatively impacted by experiencing the injustice are not to blame; and there is something that we can actually do to close the gap.

The SDOH are impacted by large and powerful systems that lead to discrimination, exploitation, marginalization, exclusion, and isolation. In this country, these historic and systemic realities are baked into structures, policies, and practices and produce, exacerbate, and perpetuate inequities among the SDOH, and therefore affect health itself. These embedded structures have led to the U.S. having the highest maternal mortality rate among developed countries with approximately 1,205 pregnancy-related deaths occurring in 2021.1

It was with this in mind, the White House Blueprint for Addressing the Maternal Health Crisis and the Healthy Women, Healthy Pregancies, Healthy Futures: Action Plan to Improve Maternal Health in America were released in response to increases in maternal mortality and morbidity within the United States.2,3 The AMA commends the Administration for its work on the Blueprint and the Action Plan, which are holistic assessments that highlight specific federal actions and outline long-term goals for improving maternal health. The AMA is especially glad to see that the Administration has noted that the maternal health crisis is at the intersection of multiple complex issues including health equity, adequate access to healthcare, socioeconomic factors, and more making the maternal health crisis an issue that will require large systemic changes to successfully address. We urge the Administration to do more to establish near-term goals and quantitative measures, to track the performance of its longer-term maternal health efforts.

In order to provide recommendations to the Administration and Congress on maternal health, the AMA has worked collaboratively over the last year with a variety of members of the Federation of Medicine, including relevant specialty societies, key state medical societies, and physicians from rural parts of the U.S. As a result of these efforts, the AMA has cultivated the following recommendations for the Administration that we believe will aid in the development of both near-term goals and quantitative measures, as well as provide additional support and information for the Administration’s long-term goals as identified in the Blueprint.4 The AMA believes that the implementation of these recommendations, in conjunction with increased funding from Congress, will help to significantly improve maternal health outcomes across the country.

Executive summary

In working to reduce and prevent rising rates of maternal mortality and morbidity and to ensure access to high-quality care for patients in rural communities, we urge the Administration and Congress to work in concert to:

- Address the Leading Causes of Maternal Mortality and Morbidity by:
  - Addressing the chronic and acute conditions that cause maternal mortality and morbidity by ensuring physicians and facilities have the resources and support necessary to adopt evidence-based Core AIM Patient Safety Bundles and checklists.
  - Encouraging the Administration to increase research to identify the most effective strategies to support physicians and other health professionals on how to eliminate disparities in health outcomes and provide patient-centered care.
  - Increasing funding for Federal Maternal Health Programs.
  - Providing funding and technical support to enhance medical-legal partnerships.
  - Removing all barriers to treatment for opioid use disorder (OUD), including preventing insurance plans and other payers from imposing prior authorization medications for opioid use disorder (MOUD), greater support for plans of safe care, and ensuring availability of naloxone to reduce maternal deaths due to drug overdoses.

- Leverage Digital Health to Address the Leading Causes of Maternal Mortality and Morbidity by:
  - Promoting home monitoring of hypertension during the postpartum period and addressing barriers to providing appropriate levels of cardiac care.
  - Maintaining expanded telehealth access, including coverage and fair and equitable payment for audio-only telephone visits.

- Strengthen the Resources Available to Support Physicians in Providing Complex Care to Higher-Risk Patients by:
  - Addressing physician workforce and training needs in maternity care.
  - Utilizing new payment models to prevent maternal deaths.
  - Collaborating with agencies in the U.S. Department of Health and Human Services (HHS) and the state Medicaid agencies to ensure consistent data collection and effective evaluation to improve outcomes and quality.

5. Id.
Address the leading causes of maternal mortality and morbidity

**Recommendation 1a:** Ensure feasibility and implementation of Core AIM Patient Safety Bundles and checklists

The AMA strongly supports the Alliance for Innovation on Maternal Health (AIM) patient safety bundles, and we are encouraged that they are included in both the White House Blueprint and the new Transforming Maternal Health (TMaH) program. The Core AIM Patient Safety Bundles, that physician-led teams can implement to address the most common causes of maternal mortality, are supported by specific quality metrics and measures through the AIM Data Center, and are the core building blocks of the AIM program’s efforts to address the leading known causes of preventable severe maternal morbidity and mortality in the United States. According to the U.S. Centers for Disease Control and Prevention (CDC), more than 50 percent of all pregnancy-related deaths were caused by hemorrhage, cardiovascular and coronary conditions, hypertensive disorders of pregnancy, cardiomyopathy, or infection. Further, 99 percent of births, whether paid for by Medicaid or private insurance, occur in a hospital setting. The AMA believes that it is uniquely positioned to support all physicians, including non-OB physicians delivering babies in rural and historically marginalized communities, to address these complex health issues for pregnant and postpartum individuals by working with the Administration to elevate and further encourage the implementation of the CORE AIM Bundles, and other relevant resources such as the ACOG Practice Advisory regarding Low-Dose Aspirin Use for the Prevention of Preeclampsia and Related Morbidity and Mortality.

We applaud the HRSA award of nearly $5.6 million to the AIM Capacity Program and the $3 million award to the AIM Technical Assistance Center. However, despite widespread acknowledgement of the importance of these AIM bundles, as of August 2023, there were only 11 AIM CCI pilot sites located across the U.S. Moreover, between the District of Columbia and the 49 states that are enrolled in AIM, there are only 1,996 birthing facilities/hospitals participating in the AIM program.

9. [https://www.aimcci.org/active-pilot-sites/](https://www.aimcci.org/active-pilot-sites/)
This lack of adequate funding results in only the largest and most well-funded hospitals being able to participate in the AIM program, despite the widespread need for implementation of these bundles.

As such, it is important for states and the federal government to recognize that the biggest barrier to implementing these bundles is often a lack of resources and that additional funding, beyond what has already been invested, is needed to adequately implement the AIM bundles, especially in smaller institutions and institutions that do not have vast resources.

Therefore, the AMA strongly recommends that the Administration provide the financial resources necessary for implementation of the Core AIM bundles and seek input from physicians providing obstetrical services about the barriers to implementing the AIM patient safety bundles. The AMA would welcome the opportunity to facilitate discussions between the Administration, the states, and physicians to help achieve this outcome.

**AIM: Care for pregnant and postpartum people with substance use disorder**

Increasing access to holistic care for pregnant and postpartum women with substance use disorders (SUD) is vitally important, and one of the issues addressed in the core AIM bundles. As such, we recommend that the AIM bundles be built out to cover additional care concerns connected with SUD and maternal health and to incorporate some additional best care practices.

Among pregnant and postpartum persons, drug overdose mortality increased approximately 81 percent from 2017 to 2020, mirroring trends observed among persons of reproductive age overall. Pre-adolescent females and women who died from a drug overdose during pregnancy, compared to those who died from obstetric causes, were more likely to be aged 10 to 34, be non-college graduates, be unmarried, and die in “non-home, non-healthcare settings.” From 2018 to 2021, the mortality ratio more than tripled among pregnant and postpartum women aged 35 to 44 years.

There are many evidence-based programs and other efforts underway in the states to extend Medicaid and CHIP coverage to pregnant people. **The AMA urges the Administration to highlight those efforts and encourage states to build on evidence-based practices to improve care, reduce inequities and support pregnant people, their newborns and families. This includes support for removing harmful policies that stigmatize and punish pregnant and postpartum individuals who receive medications for opioid use disorder (MOUD).**

MOUD is recognized as part of the standard of care for treating pregnant individuals with an opioid use disorder (OUD). Too many pregnant people, however, fear prosecution for taking MOUD as well as threats to being able to keep their newborn if taking MOUD through a pregnancy or postpartum period. The AMA appreciates the efforts of CDC, the Substance Abuse and Mental Health Services Administration (SAMHSA), the Office of National Drug Control Policy (ONDCP), the National Institute on Drug Abuse (NIDA) and other agencies that highlight the benefits of MOUD during pregnancy, and the AMA would be pleased to work with the Administration to further emphasize the medical and public health benefits. Correctional facilities and judicially-supervised diversion programs should provide all justice-involved people, including pregnant and postpartum individuals, with access to FDA-approved MOUD and universal screening for SUD. Rates of SUD and OUD among incarcerated individuals are disproportionately high; the DOJ estimates that more than half of those incarcerated in state prisons and jails meet the criteria for an SUD, compared to one in 20 people in the general population. Despite the U.S. Department of Justice (DOJ) guidance that denial of MOUD in jails and prisons violates the Americans with Disabilities Act, and federal court decisions protecting the right to receive MOUD in carceral settings, jails and prisons still provide far less access to MOUD than do community providers. It is contrary to all medical evidence to force individuals

13. [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7945667/](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7945667/).
to undergo discontinuation or abrupt cessation of MOUD, leading to withdrawal, which is associated with both physical and psychological harm. The AMA encourages the Administration to help ensure pregnant people in jails and prisons have access to their rights under the law, including access to MOUD during pregnancy and postpartum periods.16

The AMA commends the Administration for creating a pathway for states to use Section 1115 Medicaid demonstrations to provide Medicaid financed pre-release services in state or local correctional facilities to support reentry to the community. This type of flexibility allows states to design state-specific, justice-involved reentry demonstrations for Medicaid-eligible individuals, including prerelease case management services, MOUD; and a 30-day supply of all prescription medications at the point of release. The AMA also supports the ability of states to provide family planning services, rehabilitative or preventive services, screening for chronic conditions that are likely to impact the carceral population (i.e., hypertension, diabetes, hepatitis C or HIV), treatment for hepatitis C, and durable medical equipment. As of December 2023, both California and Washington have secured approval from the Centers for Medicare & Medicaid Services (CMS) to provide reentry services to justice-involved populations and 15 other states have submitted reentry demonstration requests. This is the type of state-federal partnership that helps improve care for pregnant people and their families. We urge the Administration to work with all states to support these beneficial initiatives.

The AMA also recommends that the Administration implement the recommendations of the HHS Interagency Pain Management Best Practices Task Force, which highlighted pregnant women as a special population.17 The Task Force report recommended more research and innovation to address pain management in peripartum women, and that women of childbearing age be counseled on the risks of opioids and non-opioid medications in pregnancy, including balancing the risks and benefits to the pregnant person, fetus and newborn. The AMA cautions, however, that pregnancy is not a reason to avoid evidence-based treatment for pain. To help guide policymakers, the AMA relies on guidance from professional medical associations, including the American College of Obstetricians and Gynecologists (ACOG), American Academy of Family Physicians, American Academy of Pediatrics and American Society of Addiction Medicine. At their core, each of these societies highlight the need for individualized patient care decisions made between the physician and patient—a guiding principle the AMA strongly supports.

AIM: Simulation training

Multiple AIM bundles include requirements to “[c]onduct interprofessional and interdepartmental team-based drills with timely debriefs that include the use of simulated patients.”18 This requirement is vital to not only the functioning of an obstetrics team but to other practitioners that may have to care for pregnant, birthing, and postpartum individuals. As such, all facilities, not just those implementing AIM bundles, where maternal care is provided should be given the resources to conduct obstetric simulation training.

“In order to ensure prevention when possible and optimal outcomes when this is not possible, it is critically important that members of the health care team are educated and are readily able to recognize, diagnose, treat, and manage medical emergencies in pregnancy.”19 As such, it is imperative that physicians have regular and reliable access to simulation-based training. “Simulation offers a way for learners to gain fluency with skills without risk to patients, and gain experience recognizing and responding to uncommon, high-risk, situations that might not otherwise occur over the course of their training. When employed properly, simulation-based training allows the opportunity to learn new skills, engage in deliberate evidence-based practice, and receive focused and real-time feedback.”20 Moreover, simulations can increase physician competency, help programs meet ACGME Residency Review Committee (RRC) requirements, and can be altered to meet the varying needs of both rural and urban health care facilities.21

16. The AMA recently issued a comprehensive set of recommendations to enhance access to care for individuals with an opioid use disorder who are pregnant or postpartum. “Improving Access to Care for Pregnant and Postpartum People with an Opioid Use Disorder: Recommendations for Policymakers” is available here: https://end-overdose-epidemic.org/wp-content/uploads/2024/02/AMA-Manatt-2024-Improving-Access-to-Care-Pregnant-Parenting-People-with-SUD.pdf


Within obstetrics, it has been shown that simulations can improve the “composite maternal morbidity rate, decrease the number of massive transfusions and improve management, with a decreased length of stay” in the hospital.\(^2\)\(^2\) This is because “[r]eal-time simulation provides training for low-probability but high-risk events often associated with maternal deaths.”\(^2\)\(^3\) As such, it is important to provide simulation training for physicians and their teams who care for pregnant, birthing, and postpartum individuals. For instance, one area where simulation can significantly positively impact maternal care is implementation of physician led team based “training simulations [that] facilitate interprofessional communication and teamwork in obstetrical emergencies. For example, scheduled multidisciplinary postpartum hemorrhage simulations at Parkland Health in Dallas, Texas, were associated with faster times for medication and blood transfusion administration as well as a decreased estimated blood loss after delivery.”\(^2\)\(^4\) Therefore, to help build up the education of OBGYN residents and physicians the ACOG “formed a Working Group of state-of-the-art simulation centers, with the goal of developing and validating a variety of Obstetrics and Gynecologic simulation-based curricula.”\(^2\)\(^5\)

The ACOG Simulations Working Group\(^2\)\(^6\) has already created multiple simulation resources including obstetric surgical skills, emergencies in clinical obstetrics, uterine atony, and cerclage.\(^2\)\(^7\) Moreover, the AIM has created simulations and drills for patient safety.\(^2\)\(^8\)

However, the cost of implementing simulations is always a concern, especially for smaller practices, practices in underserved areas, and rural practices. As such, it is vital that funding be provided for consistent, up to date, holistic simulations that can improve maternal health. Moreover, these simulations should be available for every physician that engages in maternal care including OBGYNs, maternal-fetal medicine specialists, family physicians, and emergency medicine physicians.

**Recommendation 1b:** Address social determinants of health (SDOH) within the pregnant and postpartum population by enhancing medical-legal partnerships

Medical-legal partnerships (MLPs) “address health-harming legal needs that disproportionately affect people at or near the poverty level” by using “training, screening and legal care to improve patient and population health.”\(^2\)\(^9\) As such, MLPs are critical, as these unique collaborations integrate the expertise of law students and attorneys into health care settings to help clinicians, case managers, and social workers address structural problems at the root of so many health inequities.\(^3\)\(^0\) “By adding lawyers to the care team, medical–legal partnerships offer a pathway to help patients access direct legal services for specific SDOH.”\(^3\)\(^1\)

Making these collaborative services a normative part of today’s health care system requires a significant cultural shift, but the benefits reaped by MLPs are significant for both patients and providers.\(^3\)\(^2\)

With direct access to legal services, clinical professionals have the necessary resources to extend their reach beyond first-level SDOH questions and to engage more deeply with patients around resolutions. Perinatal medical–legal partnerships share responsibility across a diverse team, integrate legal care as needed, and leverage law and policies to help manage vulnerabilities that are exacerbated by an advancing pregnancy. These same medical–legal partnership features continue to offer significant benefits as patients adapt to the addition of a newborn to their families. Such an approach aligns with current efforts to foster multi-sector partnerships and connections across

\(^{22}\) \(\text{https://obgyn.onlinelibrary.wiley.com/doi/full/10.1111/1471-0528.17640.}\)
\(^{23}\) \(\text{https://www.contemporaryobgyn.net/view/how-can-we-prevent-pregnancy-related-deaths-.}\)
\(^{24}\) \(\text{https://www.contemporaryobgyn.net/view/how-can-we-prevent-pregnancy-related-deaths-.}\)
\(^{25}\) \(\text{https://www.acog.org/education-and-events/simulations/about.}\)
\(^{26}\) \(\text{https://www.acog.org/education-and-events/simulations/about/curriculum.}\)
\(^{27}\) \(\text{https://www.acog.org/education-and-events/education-search?fq=simulations%20working%20group.}\)
\(^{28}\) \(\text{https://saferbirth.org/aim-resources/aim-cornerstones/simulations/}\)
\(^{29}\) \(\text{https://kresge.org/sites/default/files/Uploads%20Docs/Medical-Legal-Partnership-toolkit-phase-2.pdf.}\)
\(^{30}\) \(\text{https://medical-legalpartnership.org/.}\)
\(^{31}\) \(\text{https://journals.lww.com/greenjournal/fulltext/2023/12000/integrating_lawyers_into_perinatal_care_teams_to.6.aspx.}\)
\(^{32}\) \(\text{https://medical-legalpartnership.org/about-us/}.\)
conventional categories focused on promoting health and well-being… Encouraging the use of medical–legal partnership in more perinatal settings is warranted as obstetric visits offer an advantageous moment for the types of interventions offered. The cadence of prenatal visits creates multiple opportunities to identify and begin to address health-harming legal needs before a child’s arrival.33

Last year, MLPs helped more than 75,000 patients resolve legal issues that were impeding good health, trained more than 11,000 health care providers to better understand and screen patients for health-related social needs, and engaged in clinic- and policy-level projects designed to improve health and health equity for entire communities. Moreover, in a 2016 survey of MLP programs across the country, 86 percent of participating health care organizations reported improved health outcomes for patients and 64 percent reported improved patient compliance with medical treatment.34

Early evidence and federal investments demonstrate the impact legal expertise and services can have on individual patients, and hint at the enormous potential for health care and legal professionals to join forces to promote population health. For example, some very successful MLPs have been established across the country such as the Medical-Legal Partnership Boston and the Georgetown University Health Justice Alliance’s Perinatal Legal Assistance and Well-being (LAW) Project – one of the first MLPs to focus specifically on perinatal needs.35,36 These MLPs show a reproduceable pathway to helping patients navigate the healthcare system.

In the future, MLPs will likely play an even greater role in supporting patients and their families involved in complex cases, and the AMA urges both the Administration and Congress to work together to provide funding to expand MLPs across the U.S. so that every birthing person can have access to the benefits they are entitled to ensure a healthy pregnancy.

34. https://medical-legalpartnership.org/impact/.
Leverage digital health to address the leading causes of maternal mortality and morbidity

**Recommendation 2a:** Promote telehealth and home monitoring during pregnancy and the postpartum period and address barriers to providing remote patient care

Telehealth and remote patient monitoring usage vastly expanded during the COVID-19 pandemic, helping Americans access health care services while maintaining social distancing and reducing strain on hospitals and physician clinics. With this expansion of services came a recognition from patients, physicians, and other health care providers that telehealth and remote patient monitoring services offer effective and convenient health care in many circumstances. Furthermore, as telehealth use has become more ubiquitous, research has demonstrated that care delivery via telehealth is of comparable quality to traditional methods of health care delivery and that patients report enhanced patient satisfaction and improved patient engagement.37

Telehealth can be used to provide a range of obstetrical services, including earlier or more frequent prenatal and postpartum visits via video, home monitoring, virtual access to lactation services, and teleconsultations with specialists.38 The AMA encourages the use of technology to expand access to these services, particularly among Medicaid populations who have historically faced challenges in accessing care. Therefore, we applaud CMS for creating the State Medicaid & CHIP Telehealth Toolkit39 as well as a Supplement40 to facilitate state implementation of telehealth policies and promote greater provision of telehealth services in the maternal health space.

**Infrastructure for remote patient care**

Although there are a number of positive uses for telemedicine in obstetrics, implementation of such technologies has been minimal. This is in part due to limiting factors such as high startup costs, limited internet access in rural areas, and inconsistent reimbursement requirements across different state Medicaid programs and commercial insurance plans.41 Furthermore, physician practices and other facilities may lack the requisite hardware, software, and internet connection to provide reliable and high-quality remote care.42 Therefore, in order to guarantee that remote maternal care can be offered, it is vital to first ensure that the infrastructure for remote care services is in place.

Internet access has been called a “super determinant” of health and yet approximately 19 million people in the United States do not have reliable broadband service.43 Accordingly, it is imperative that there are reliable broadband connections at both the site of the provider and the patient to ensure that consistent, reliable, maternal care can be provided virtually. Thus, the Administration should build out, and make permanent, initiatives like the Connected Care Pilot Program which provides funding for “eligible costs of broadband connectivity, network equipment, and information services...”44 Moreover, it is exceptionally important that these initiatives focus on rural areas that tend to have the worst broadband access.45 Consequently, programs like the Rural Health Care Program and the Rural Telehealth Initiative Task Force should be provided with additional support, potentially through the Internet for All Initiative, so that broadband access can be provided to these communities as quickly as possible.46

**Coverage of telehealth**

As almost half of births in the U.S. are financed by Medicaid, expanded access to telehealth technologies in pregnancy will largely depend on state and federal decisions regarding telemedicine coverage. To support

---

42. https://journals.lww.com/greenjournal/Fulltext/2020/02000/Implementing_Telehealth_in_Practice.44.aspx.
45. https://www.fcc.gov/reports-research/maps/connect2health/map.html?fi=31.5,-96.4&z=4&tk=insights&hmt=opioid&inb=in_bb_in_adoption&slb=0.84&inc=none&dfm=none&kino=in_alldrugs_age_adj_mortality_rate&il0=20.1,126.3&zlt=county.
access to perinatal care via telehealth, the AMA has strongly supported extending Medicaid eligibility for pregnant women to 12 months after birth and appreciates the Administration’s efforts to support state actions to implement this coverage.

While maternity care is covered without cost-sharing by some private plans and Medicaid expansion programs under the Affordable Care Act (ACA), there are no federal requirements for coverage or reimbursement of telehealth care provided during or after pregnancy. Rather, each state regulates and sets reimbursement policies, which may vary significantly across states and between public and private plans. However, due to the increased reliance on telemedicine over the past few years, Medicaid programs have begun to permanently expand coverage of telemedicine as a modality to provide healthcare services. For example, all 50 states, plus Washington D.C., now provide reimbursement for some form of telehealth in Medicaid fee-for-service. Additionally, 37 Medicaid programs now provide reimbursement for remote patient monitoring, and 43 states plus Washington D.C. have instituted private payer laws that address telehealth reimbursement. However, maternal and postpartum virtual care is not always included in these policies.

The AMA believes that telehealth and remote patient monitoring are a critical part of the future of effective, efficient, and equitable delivery of health care in the United States and advocates for comprehensive Medicaid coverage of virtual maternal health care services.

**Monitoring of hypertension during pregnancy and postpartum**

Over the last decade, the AMA has developed and disseminated an evidence-based quality improvement program, AMA MAP™ hypertension (HTN), that has demonstrated improvement in blood pressure (BP) control for adult patients with hypertension in primary care settings. In addition the AMA has collaborated with other interested groups to increase access to tools, resources and services to improve the clinical management of hypertension, including clinical services and home devices for self-self-measured blood pressure (SMBP), specifically increasing Medicaid coverage. SMBP is an evidence-based strategy for BP control that is incorporated into AMA MAP HTN and other AMA solutions.

The AMA is convening clinical subject matter experts to identify effective strategies and best practices to improve care of patients with Hypertensive Disorders of Pregnancy (HDP). Expected deliverables include clinical resources, issue briefs/commentaries, and peer-reviewed publications for national dissemination. The AMA collaborates regularly with organizations and leaders in maternal health who are national experts on Hypertensive Disorders of Pregnancy to build upon the AMA work to develop an SMBP postpartum strategy.

**Improving care for patients with hypertensive disorders of pregnancy**

HDP is one of the leading causes of pregnancy-related deaths that occur in the first 6 weeks postpartum. The rate of patients entering pregnancy with chronic HTN and the overall rate of HDP have risen considerably in recent years. The use of SMBP has been shown to increase compliance with ACOG recommendations for BP monitoring, increase patient satisfaction, and decrease readmissions for HDP. SMBP has also shown promise in reducing

---

inequities in the monitoring and treatment of BP in postpartum patients.\textsuperscript{57} Multiple barriers prevent the widespread adoption and use of SMBP for which there are potential solutions. These include:

\textit{Coverage and access}

Medicaid covers 42 percent of all births in the U.S.\textsuperscript{58} Coverage varies by states including the inclusion of an extra appropriately size cuff, often needed to ensure clinical accuracy. This variation and others are barriers to scaling SMBP. Even when coverage exists there are still access issues. Some states prohibit shipping a covered device directly to the patients or require patients to go to a specific DME supplier rather than a more convenient location. For SMBP coverage to be clinically impactful it necessitates that patients have coverage and access to devices that are appropriately sized and clinically validated.

Therefore, we recommend policies that support:

- Increased coverage and access to SMBP devices clinically validated for pregnancy and appropriate cuff sizing options.

\textit{Clinical infrastructure}

SMBP requires investments in clinical personnel and technology integration into clinical practice.

Therefore, we recommend policies that support:

- Improved interoperability of apps/platforms to support the transfer of BP measurement data from patients to clinical teams.
- Increased reimbursement for physician-led team-based care in order to increase patient access to programs that improve care for patients with HDP.

\textit{Clinical quality improvement}

Clinical teams require access to data to drive and measure quality improvement programs as well as research efforts. Dedicated funding to scale promising interventions nationally and measure the impact on outcomes is also needed to identify the most effective solutions and strategies.

Therefore, we recommend policies that support:

- Increased availability of standardized clinical and billing data for use in quality improvement.
- Increased funding for clinical, dissemination and implementation research on HTN and CVD during pregnancy and postpartum in order to identify and measure effective interventions to improve quality of care and health outcomes.

Additional factors that may impact the use of SMBP are the availability of maternity care, the status of policies related to caregiving (for example, parental leave) and the status of health insurance coverage availability (for example, Medicaid expansion).

\textit{Teleconsultation}

In many rural and underserved areas that lack regular and reliable access to physician specialists and subspecialists, such as maternal-fetal medicine physicians and fetal cardiologists, primary care physicians routinely manage pregnancy care. These primary care providers need access to specialist consultations to help address complex clinical challenges that may arise over the course of pregnancy or delivery. One way to support multidisciplinary peer collaboration is through a telehealth hub-and-spoke model in which one large “hub” hospital provides additional support and training for smaller “spoke” facilities.\textsuperscript{59} This model, introduced through Project ECHO, enables physicians in rural areas to connect with specialists in facilities with the capacity to provide higher levels

\textsuperscript{59} https://www.ruralhealthinfo.org/toolkits/telehealth/2/care-delivery/specialty-care.
of maternal care via telehealth. Evaluations of these programs show that remote consults are generally feasible, acceptable to patients, and can save patients time and money on travel. Telemedicine may also increase access to specialty care for patients who may otherwise forgo this care due to lack of availability in their communities. Having specialists accessible via telemedicine may also encourage local providers to maintain care of their high-risk patients and safely facilitate more deliveries in nearby hospitals.60 These models of teleconsultation should continue to be supported to enable patients to access higher levels and more specialized care without having to leave their communities.

**Legislation to permanently extend telehealth policies**

The AMA is a vocal supporter of the “Connected Maternal Online Monitoring Act” (or the “Connected MOM Act”), which would allow for the identification of barriers to coverage of remote physiologic devices (e.g., pulse oximeters, blood pressure cuffs, scales, blood glucose monitors) under State Medicaid programs to improve maternal and child health outcomes for pregnant and postpartum women. This bipartisan legislation would also require the Administration to update state resources, such as state Medicaid telehealth toolkits, to align with evidence-based recommendations to help decrease maternal mortality and morbidity.61 We urge Congress to pass the Connected MOM Act.

**Recommendation 2b**: Create consistent definitions and ensure the acquisition of the right type of data

The collection and dissemination of data within the maternal health space is an important part of ensuring progress within obstetric care. The importance of data collection is so prominent that it is a part of most of the Core AIM Bundles. Unfortunately, some physicians feel that there is a lack of access to this vital data and feel that even when their workplaces are implementing some of the AIM Bundles, there is an inability to track what is working and what is not working within the maternal care space. For example, some physicians have noted that, though it is an AIM bundle data metric, it has been difficult to track who was considered a good candidate for vaginal delivery and who actually gave birth vaginally. Without better data acquisition it will remain difficult to create processes within obstetrics that can help the field pivot towards improvement.

**Advancing interoperability for maternal health**

Standardization is the first step in forming robust research datasets and is especially important for studies on maternal health. Yet, the current lack of data availability and standardization, limited research on data collection practices, and piecemeal implementation of sources and tools should be addressed. Moreover, the quality of the data collected must be improved to support research on maternal health care services and interventions. As such, while progress has been made, there remain opportunities to improve the collection, linkage, and analysis of data collected at the point of care.

One of the first improvements that must be made in the collection and usage of maternal health data is ensuring that the data is complete. For example, maternal health and child health are inextricably linked, but relevant data are often held in separate, unconnected health records. In order to address this issue, models are being developed to support data exchange for predictive analysis, risk assessment, and retrospective maternal health research. One such project is HL7’s Longitudinal Maternal & Infant Health Information for Research, which is working to identify risk factors for maternal mortality and poor maternal and infant health outcomes.62 This project, and projects like it, should be supported and built out so that the necessary data linkages between individuals and their infants’ health can be made and a holistic picture of the maternal mortality crisis can be achieved.

To further aid in creating this holistic picture of maternal and infant health, Medicaid eligibility and claims data should be used, in conjunction with vital statistics and data from the Pregnancy Risk Assessment Monitoring System (PRAMS), to help review maternal and infant health data points that could indicate trends in care across Medicaid and the Children’s Health Insurance Program.

Moreover, federal policies should support the expansion of the Pregnancy Mortality Surveillance System (PMSS). The expansion of PMSS would accelerate research in this space and help develop evidence-based practices to prevent disease conditions that contribute to poor obstetric outcomes, maternal morbidity, and maternal mortality in racial and ethnic minorities. To aid in this, standards are needed to support physician collection of patient-identified race and ethnicity information to better detect inequities because better electronic health record (EHR) data in clinical settings and standardization across health systems is essential for meaningful and unbiased research.

**Data standardization, harmonization and gaps**

It is essential that maternal mortality and maternal morbidity have a standard definition across all federal, state, local, and private organizations so that data from every source can be combined, and a more complete picture of maternal health can be discovered. However, currently there is not a set definition for maternal morbidity, severe maternal morbidity, or maternal mortality/death.

Please see the chart below for examples of some of the various definitions that exist for maternal morbidity, severe maternal morbidity, and maternal mortality:

<table>
<thead>
<tr>
<th>Organization</th>
<th>Maternal Morbidity Definition</th>
<th>Severe Maternal Morbidity (SMM) Definition</th>
<th>Maternal Mortality/Death Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Centers for Disease Control and Prevention (CDC) Pregnancy Mortality Surveillance System (PMSS)</td>
<td>The unexpected outcomes of labor and delivery that result in significant short- or long-term consequences to a woman’s health.</td>
<td>The death of a woman while pregnant or within 1 year of the end of a pregnancy regardless of the outcome, duration, or site of the pregnancy from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.</td>
<td></td>
</tr>
<tr>
<td>CDC’s National Center for Health Statistics’ National Vital Statistics System (NVSS)</td>
<td>Serious complications of delivery that result in short- or long-term consequences to a patient’s health.</td>
<td>A death while pregnant or within 42 days of the end of pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.</td>
<td></td>
</tr>
<tr>
<td>National Institutes of Health (NIH)</td>
<td>Any short- or long-term health problems that result from being pregnant and giving birth.</td>
<td>Life-threatening health problems that are present at delivery.</td>
<td>The death of a woman from complications of pregnancy or childbirth that occur during the pregnancy or within 6 weeks after the pregnancy ends.</td>
</tr>
<tr>
<td>World Health Organization</td>
<td>Any health condition attributed to or complicating pregnancy, childbirth or following pregnancy that has a negative impact on the woman’s well-being or functioning.</td>
<td>A maternal near miss – a woman who nearly died but survived a complication that occurred during pregnancy, childbirth, or within 42 days of termination of pregnancy.</td>
<td>The death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from unintentional or incidental causes.</td>
</tr>
</tbody>
</table>

70. https://apps.who.int/iris/bitstream/handle/10665/270546/PMC2755324.pdf;sequence=1.
<table>
<thead>
<tr>
<th>Organization</th>
<th>Maternal Morbidity Definition</th>
<th>Severe Maternal Morbidity (SMM) Definition</th>
<th>Maternal Mortality/Death Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nebraska Department of Health and Human Services</td>
<td>Significant negative health consequences of labor and delivery. SMM includes unexpected outcomes of labor and delivery that result in significant short- or long-term consequences to a woman’s health.</td>
<td>A pregnancy-associated death is the death of a person within one year of the end of a pregnancy from any cause. Pregnancy-associated deaths represent the broadest category of maternal deaths and can be broken down further into two main categories: pregnancy-related deaths and deaths unrelated to pregnancy.</td>
<td>A pregnancy-related death is a maternal death due to a pregnancy complication. More specifically, these deaths occur during pregnancy or within a year of the end of a pregnancy and are due to a chain of events initiated by the pregnancy or the aggravation of an unrelated condition by the physiologic effects of pregnancy.</td>
</tr>
<tr>
<td>Minnesota Department of Health</td>
<td>“A near miss,” such as injuries or incidents related to pregnancy or childbirth that did not result in death.</td>
<td>A death during or within one year of pregnancy, from a pregnancy complication, a chain of events initiated by pregnancy, or the aggravation of an unrelated condition by the physiologic effects of pregnancy.</td>
<td></td>
</tr>
<tr>
<td>New Jersey Department of Health 74</td>
<td>Unexpected outcomes of labor and delivery that result in significant short- or long-term consequences to a woman’s health.</td>
<td>Deaths from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 365 days of termination of pregnancy, irrespective of the duration and site of the pregnancy.</td>
<td></td>
</tr>
</tbody>
</table>

As shown above, the definitions in the maternal health space vary quite dramatically. For example, the definition of maternal mortality ranges from a death occurring from one year post-delivery all the way down to a mere six weeks post-delivery.

Without one standard definition, it is difficult for data from different sources to be compiled and universally applied. As such, in order to ensure a complete and thorough review of maternal health data, the definition of maternal mortality should include a timeframe of one year post-delivery.

Moreover, as noted above in the chart, some entities do not have a definition, or do not have an easily identifiable definition, for maternal morbidity. It is important to ensure that there is a set definition for this term since it is commonly used within the maternal health space and, if properly defined, could provide better early indicators for individuals that need additional maternal care. To help and create a universal definition for maternal morbidity, it could be beneficial to develop a definition similar to that used by the CDC for severe maternal morbidity.75

The CDC currently uses ICD codes to help identify and define severe maternal morbidity. However, though the ICD currently includes numerous codes that indicate a death or morbidity due to pregnancy, there is not a universally

73. https://www.health.state.mn.us/people/womeninfants/maternalmortality/maternalmortreport.pdf
used set of indicators linked to these ICD codes to help with the identification, classification, and data collection surrounding maternal mortality and morbidity in the same way that there is for severe maternal morbidity.

In order to help identify and define severe maternal morbidity, the CDC has linked the definition to a list of 21 indicators and corresponding ICD codes. These indicators are:

1. Acute myocardial infarction
2. Aneurysm
3. Acute renal failure
4. Adult respiratory distress syndrome
5. Amniotic fluid embolism
6. Cardiac arrest/ventricular fibrillation
7. Conversion of cardiac rhythm
8. Disseminated intravascular coagulation
9. Eclampsia
10. Heart failure/arrest during surgery or procedure
11. Puerperal cerebrovascular disorders
12. Pulmonary edema/ Acute heart failure
13. Severe anestheisia complications
14. Sepsis
15. Shock
16. Sickle cell disease with crisis
17. Air and thrombotic embolism
18. Blood products transfusion
19. Hysterectomy
20. Temporary tracheostomy
21. Ventilation

Linking the definition of severe maternal morbidity to indicators and ICD codes “has the advantage of being easily applied to hospital discharge data either locally or in national datasets.”

Nevertheless, the current indicators need to be expanded since research has found that these indicators have not captured somewhere between 14 and 22 percent of new postpartum cases. This lack of accuracy seems to be due to the fact that one in seven severe maternal morbidity events occur post hospitalization, which is currently not covered by the ICD codes. As such, it is important to ensure that CMS includes post hospitalization data and “near miss” events in its definition of severe maternal morbidity, and connects these events to indicators, so that there is increased standardization and decreased gaps in this maternal health data.

However, despite the need to expand the indicators associated with severe maternal morbidity, defining maternal health events via indicators linked to ICD codes is a positive step and something that should be expanded into the definitions for maternal morbidity and maternal mortality. Therefore, the federal government, should create a set of detailed underlying cause categories that are mutually exclusive and identify all conditions that are epidemiologically or clinically important in maternal mortality and morbidity and link those categories to ICD codes. In the case of maternal mortality, this increased standardization, based on indicators, will likely be extremely beneficial because it will help to increase the accuracy with which death certificates are filled out and thus, increase data collection precision. As such, one standard definition for the terms within maternal health should be created and universally applied, and those definitions should be linked to indicators and ICD codes.

Data governance and privacy

As more data are collected, data protection and security must also be considered. Prior to initiating a data collection effort or expanding the type of data collected, an entity must first evaluate if the necessary technical, governance, and legal protections are in place to maintain an individual’s privacy and trust. Without guardrails in place, the misuse of data could further disparities and decrease individuals’ confidence in government data collection efforts. Individuals are increasingly aware that companies gather and use their personal information, including information relating to maternal health services. For example, women who use digital health tools to track their menstrual

---

cycles have started deleting these apps, concerned that their information is not private and secure.\textsuperscript{81} As a result of this perceived lack of data privacy, women and other individuals who no longer believe their information is secure may hesitate to engage with the broader health care system.

An effective data governance infrastructure is needed to ensure maternal health data are consistent, trustworthy, and not misused. From the outset, data governance should address the questions “why are we collecting this data” and “what else will it be used for.” If these critical questions are not addressed, and as individuals become more aware of the fact that entities can track and share their activity, they will be less likely to share information, even with their physicians. In efforts to promote maternal health care, \textbf{the Administration must consider what steps it can take to reassure individuals that their personal information, including maternal and infant health information, remains private and secure.}

Moreover, research shows that individuals are most comfortable with physicians and hospitals having their data but are least comfortable with their data leaking outside the provider space.\textsuperscript{82} \textbf{Trust is a fundamental aspect of the patient-physician relationship.} Even well-informed and knowledgeable patients rely on their physicians to keep personal information confidential and act in their best interests.\textsuperscript{83} In a recent survey of 1000 patients, nearly 75 percent said they are concerned about protecting the privacy of their health data. Six in 10 patients are worried about health data being used by companies to discriminate against them or their loved ones or to exclude them from opportunities to find housing, gain employment and receive benefits. The survey also identified that over 50 percent of patients are “very” or “extremely” concerned that unnecessary access to their data could result in negative repercussions related to insurance coverage, employment, or opportunities for health care.\textsuperscript{84}

\textbf{As such, any efforts to increase maternity health information exchange should ensure patient data are protected, safe, and secure.} The AMA strongly supports stringent protection of all data pertaining to any individual. Maintaining the privacy of individuals’ health information, particularly those in a vulnerable demographic such as pregnant people, parents, and their children, is of critical importance in advancing the equitable objectives of the Administration and maintaining trust in the health care delivery system.

Patients recognize the value of information exchanged among their providers but also worry about the consequences of their information being misused by businesses or other entities, including payers. \textbf{Data privacy and data information exchange are not mutually exclusive. Therefore, we urge the Administration to encourage both data privacy and data information exchange with equal emphasis.}

\begin{itemize}
\item \textsuperscript{81} [https://www.nytimes.com/2022/07/13/technology/personaltech/abortion-privacy-roe-surveillance.html](https://www.nytimes.com/2022/07/13/technology/personaltech/abortion-privacy-roe-surveillance.html).
\item \textsuperscript{83} [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1500897/pdf/jgi_204.pdf](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1500897/pdf/jgi_204.pdf).
\end{itemize}
Strengthen the resources available to support physicians in providing complex care to higher-risk patients

**Recommendation 3a: Address physician workforce needs in maternity care**

Access to physician practices, clinics, and hospitals that provide maternal and infant care services is critical to providing high-quality care, yet, in 2023, only about 43,500 OB/GYNs were in practice across the entirety of the U.S. and its territories.85 There's a shortage of most kinds of health care providers, including OB-GYNs, and then that is worsened by the fact that many people don't want to practice in a rural area because they fear having too many responsibilities piled on them and not being able to say no... If you're in a larger urban area, you have more partners or more people to work with to cover the responsibilities.86 As such, a greater emphasis is needed on increasing and retaining the number of physicians to provide maternal and infant care.

According to the latest March of Dimes report, almost 7 million women live in maternal care deserts.87 Moreover, 36 percent of counties nationwide, largely in the South and Midwest, have no obstetric hospitals, birth centers, or physicians who provide obstetric care. According to a new Center for Healthcare Quality and Payment Reform report, more than half of the rural hospitals in the U.S. no longer offer labor and delivery services, and in 10 states, more than two-thirds of rural hospitals do not have these vital services.88 This unsustainable lack of access to care forces women to arrange transportation, childcare, or take time off from work to travel long distances for maternity care services, making it more likely they will forego or delay essential prenatal or postpartum care. As a result, mothers and babies in maternal care deserts face a higher risk of poor health outcomes, including death.

The cap and residency

The shortages in rural communities and maternal care deserts are even further compounded by the cap that has been placed on residency slots. When Congress enacted the Balanced Budget Act of 1997, it placed a limit (or cap) on the funding that Medicare would provide for GME.89 This meant that most hospitals would receive direct medical education (DGME) funding and indirect medical education (IME) support only for the number of allopathic and osteopathic full-time equivalent (FTE) residents it had in training in 1996. Until the cap is significantly raised, the shortage of physicians that can provide maternal and infant care will never be truly resolved. Therefore, it is essential that we invest in our country’s health care infrastructure by providing additional GME slots so that more physicians can be trained and access to care can be improved. Additionally, the cap should not be stagnant, but rather, should be increased as needed. Moreover, the cap-building period for new residency programs should be increased.

Additionally, more OB/GYN and maternal-fetal medicine residency positions should be created with an emphasis placed on creating residency positions in maternal health deserts. This would be especially impactful for rural areas that need more physicians long term because “residents often continue to practice in locations where they complete GME training, which ultimately influences the distribution of the health care workforce. A 2020 study found that 56 percent of the residents who completed their training between 2010 and 2019 were still practicing in the state in which they trained at the end of 2019.”90

To accompany this, additional specific training tracks for maternal and infant care should be created and expanded. For example, rural track programs (RTP) already exist and are designed to encourage the training of residents in rural areas.91 Specifically, the Rural Residency Planning and Development (RRPD) Program improves and expands “access to health care in rural areas by developing new, sustainable rural residency programs or rural track programs (RTPs) that are accredited by the Accreditation Council for Graduate Medical Education (ACMG), to

---

address the physician workforce shortages and challenges faced by rural communities. This program provides start-up funding to RRPD award recipients to create new rural residency programs that will ultimately be sustainable long-term through viable and stable funding mechanisms, such as, Medicare, Medicaid, and other public or private funding sources.92 One of the RRPD Program Pathways is the Maternal Health and Obstetrics Pathway. This Pathway supports new residency programs that focus on obstetrical training that will broaden residents’ experience and knowledge and allow them to provide high quality, evidence-based maternity care and obstetrical services in rural areas.93 This program is available for both obstetrics-gynecology rural residency programs and family medicine rural residency programs that have enhanced obstetrical training.

While the Maternal Health and Obstetrics Pathway is an important first step, it needs to be expanded so that additional maternal health pathways can be created. For example, additional training tracks should be created that allow for both rural and urban training for OBGYNs, maternal-fetal medicine specialists, family physicians, and other physicians that will likely have to provide maternal care. These training programs could be modeled off existing programs that are already accredited by ACGME such as the family medicine RTP programs which exist in the “1-2 format”—meaning the resident’s first year is at a core family medicine program and the second and third years are at another site. Since there are already provisions of law and regulations that allow urban hospitals to create multiple RTPs and receive adjustments to their caps for newly established RTPs, it would be possible to create an educational format that allows for residents to train in urban and rural settings in maternal care thereby enabling physicians who will ultimately practice in rural areas to do rotations in hospitals with a high volume of deliveries so they can receive ongoing training and experience with cesarean sections and pregnancy-related complications. Moreover, these urban-rural pathways would allow residents to receive a well-rounded education, create relationships and support systems in multiple settings, and ultimately feel more prepared to practice in rural areas where they may be one of the only physicians in the county. As such, more funding should be provided for the Maternal Health and Obstetrics Pathway and more programs with similar goals should be created to support increased access to appropriate maternal and infant care across the country. Moreover, additional funding for rural clinics and hospitals should be provided to enable them to offer rotations for medical students and residents in rural obstetric care.

Teaching Health Center Graduate Medical Education Program

It is not just the lack of residency spaces that impacts the population of OBGYN and maternal-fetal medicine specialists, it is also the immense debt burden experienced by America’s physician workforce that must be remedied. Nearly 75 percent of medical school graduates have outstanding medical school debt, with the median amount being $200,000.94 This number will only continue to increase as the cost of medical school continues to rise. As such, due to the cost of medical school, many low-income individuals are completely deterred from attending medical school in the first place. According to a national survey, the cost of attending medical school was the number one reason why qualified applicants chose not to apply.95 Additional surveys by the Association of American Medical Colleges (AAMC) support this conclusion and found that underrepresented minorities cited cost of attendance as the top deterrent to applying to medical school.96 Therefore, one important tool to help with this debt burden is to provide more scholarships and loan repayment programs through the federal government.

The Teaching Health Center Graduate Medical Education (THCGME) Program provides additional resources for training physicians and dentists in community-based settings with a focus on rural and underserved communities.97 “Teaching Health Centers are located predominantly (80 percent) in community-based health centers, such as Federally Qualified Health Centers (FQHCs), FQHC Look-Alikes, Rural Health Clinics, and Tribal Health Centers that provide primary care services in underserved areas.”98 This program focuses on certain specialties including obstetric and gynecological physicians. Since 2010 this program has helped 21 OBGYNs complete their residency

96. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3760863/.
and enter the workforce. Though this is an excellent start, additional funding, and support for this program, and in particular OBGYNs in the THCGME Program, is needed.

National Health Service Corps

The National Health Service Corps (NHSC) provides scholarships and loan repayment options for health care providers that are willing to serve in health Professional Shortage Areas (HPSAs) for a designated period of time. The NHSC has multiple loan forgiveness and scholarship programs and physicians are eligible for all these programs, though each program has a different service commitment and amount that can be forgiven.99 However, only “4 percent of providers have received NHSC funding during their time in school through the NHSC Scholarship Program.”100 Since scholarships help to diminish the financial burden of medical school from the outset, which promotes greater diversity in applicants, and ultimately a greater diversity in the physician workforce, additional funding should be provided to bolster the scholarship aspect of the NHSC program. Furthermore, “[i]n fiscal year 2020, 43 percent of the 11,102 providers who newly applied to NHSC programs did not receive funding” and physicians were among the providers with the highest proportions of rejected applicants.101 This is in part because “HRSA prioritizes funding to providers serving in HPSAs with more severe provider shortages.”102 However, 40 percent of rejected applicants were providing care at sites with HPSA scores that were in the upper half of possible scores.103 Furthermore, 33 percent of HPSA sites had vacancies for primary care physicians, demonstrating the continued need for more physicians.104

In the maternal care space, the NHSC recently added the ability to work in a Maternity Care Target Area (MCTA) to its loan repayment program.105 This program allows obstetricians, gynecologists and family medicine physicians who practice obstetrics on a regular basis located within a primary care HPSA to distribute maternity care.106 This program is extremely important given the maternal care shortages across the country, however, the MCTA addition to the NHSC has not been well publicized. As such, further information about the MCTA addition should be provided to the public and more funding for the MCTA addition should be granted so that an adequate number of maternity care physicians can be placed in HPSAs through the NHSC.

Indian Health Service

“The maternal death rate for American Indian and Alaska Native (AI/AN) women is consistently higher than the U.S. national average, and AI/AN woman have a higher prevalence of postpartum depression (14%-29.7%) when compared to the U.S. average (11%).”107,108 Moreover, over 93 percent of AI/AN pregnancy related deaths were determined to be preventable by Maternal Mortality Review Committees (MMRCS).109 However, the individuals who are most likely to provide care for the AI/AN populations have many obstacles that they must overcome. For example, “financial barriers are a commonly cited reason for American Indian or Alaska Native students not pursuing or staying in medical school.”110 As such, it is imperative to create and strengthen programs that encourage medical students and residents to provide much needed medical care to our AI/AN populations.

In order to help with this care deficit, the Indian Health Service (IHS) should establish an Office of Academic Affiliations responsible for coordinating partnerships with the Liaison Committee on Medical Education, the Commission on Osteopathic College Accreditation, accredited medical schools, and residency programs accredited by the Accreditation Council for Graduate Medical Education. Furthermore, to support these partnerships, funding streams should be developed to promote rotations and learning opportunities at IHS, Tribal, and Urban Indian Health Programs.

Moreover, the IHS loan repayment program should be strengthened. The loan repayment program within IHS provides $40,000 to physicians who serve for two years in health facilities that serve American Indian and Alaska Native communities.111 “Opportunities are based on Indian health program facilities with the greatest staffing needs in specific health profession disciplines. Loan repayment program participants can extend their contract annually until their qualified student debt is paid off.”112 However, the payments received through the loan repayment program are taxable. In order to align this loan repayment program with other similar programs the loan repayments received should be tax free.

Furthermore, compensation for IHS physicians should be increased to a level competitive with other Federal agencies and additional funding should be provided to the IHS loan repayment program to increase the number of physicians that can be supported, especially in the maternal care space. In alignment with this, additional funding should be provided for the IHS Maternal Child Health (MCH) program which aims to increase access to safe, quality care for AI/AN pregnant persons and children. The IHS MCH should ensure that the funds it receives are used to increase access to OBGYNs and maternal-fetal medicine specialists for AI/AN pregnant persons. Additionally, increased continuing education opportunities should be provided for physicians serving these communities, especially those in remote areas, and increased peer contact should be provided, both to maintain a high quality of care and to avert professional isolation.

Furthermore, we encourage the CDC to continue its engagement in the following ongoing initiatives (this list is not exhaustive): develop awards to fund support for MMRCs for AI Tribes, expand materials on the Hear Her Campaign website for AI Tribes, and continue support for the Healthy Native Babies Project (HNBP) to assist local programs in addressing safe infant sleep in AI/AN communities.

**Recommendation 3b:** Address physician education needs in maternity care

*Ensuring that more physicians know how to provide maternal care*

Patients may seek obstetric care in a number of non-obstetric settings “including EMS/911, hospital-based emergency departments, standalone emergency rooms, or urgent care facilities.”113 Therefore, it is important to ensure that the larger physician workforce, especially those physicians that are often required to provide prenatal and postpartum care, are trained and prepared to provide this medical care. For example, “[w]omen often see their primary care physicians for common acute conditions during pregnancy, even if they are not the primary maternity care clinician.”114 Moreover, “[f]amily medicine physicians have a prominent role in delivery of women's health services, particularly in rural areas… Given their broad skill set, family medicine physicians are especially well suited to provide prenatal care and to attend births in sparsely populated settings because they can attend to the totality of the family’s needs.”115 Furthermore, Emergency Department use in pregnancy is common.116 “The proportion of pregnancy-associated emergency department visits among reproductive-age women is increasing, as are inpatient admissions from the emergency department for pregnancy-associated diagnoses.”117 Therefore, it is important to expand maternal care education and training especially to non-obstetrics providers, including family medicine and emergency medicine physicians, to ensure they can more effectively diagnose, manage, and treat higher-risk pregnant and postpartum patients.

To help aid in the education and training of non-obstetrics providers, fellowship programs recognized by the Board of Certification in Family Medicine Obstetrics, have been designed to train family medicine physicians, often practicing in rural or otherwise medically underserved settings, to provide basic obstetrics care including antepartum, delivery, and postpartum care.118 Additionally, in the past 10 years, emergency obstetrics training

111. https://www.ihs.gov/loanrepayment/.
programs have been developed to provide emergency medicine physicians with the skills necessary to recognize and manage obstetric emergencies, including uncomplicated and complicated vaginal deliveries, eclampsia, and postpartum hemorrhage.\textsuperscript{119}

Furthermore, in order to help physicians that do not have obstetrical training address obstetric emergencies, the ACOG developed resources concerning the appropriate administration of care for pregnant, birthing, and postpartum patients. These resources include materials to help physicians identify and manage pregnancy-related emergencies in non-obstetric settings such as emergency departments, emergency medical services (EMS), and urgent cares. Some examples of these resources are the Cardiovascular Disease in Pregnancy and Postpartum Algorithm, an Acute Hypertension in Pregnancy and Postpartum Algorithm, an Eclampsia Algorithm and more.\textsuperscript{120,121}

In maternity care deserts where pregnant and postpartum patients may not have access to OBGYNs, it is important to equip all physicians with the skills necessary to recognize and treat obstetric emergencies. As such, the resources developed by ACOG, and resources that are similar to these, should be widely disseminated and additional resources of this kind should be created to help increase non-obstetricians' knowledge surrounding maternity care.

**Peer networks and mentorship**

**Holistic changes need to be made to the working environment for physicians working in rural and underserved areas.** Students need to be recruited earlier in life. Programs should be created and must involve the identification of students very early of students in high schools who want to commit to practicing medicine. Additionally, communities that need health professionals should be educated about medical education and encouraged to help groom and assist local students with getting into medical school. Moreover, pathway programs and holistic outreach (mentors, interview prep, etc.) are necessary. Medical schools and residency programs should develop educationally sound obstetric and rural clinical preceptorships and rotations consistent with educational and training requirements and provide early and continuing exposure to those programs for medical students and residents. Finally, once individuals choose residencies in maternal care deserts, support systems are needed.

The majority of programs that bring physicians to practice in high need areas are focused on recruitment rather than retainment.\textsuperscript{122} In order to help with retainment more programs that foster learning and professional communities should be created because “[p]hysician recipients of peer support reported improved well-being, decreased negative emotions and stigma, and perceived positive cultural changes within their departments.”\textsuperscript{123} For example, a Peer Outreach Support Team (POST) program that was implemented in California to provide physician-focused peer support was well received and has had “a positive effect on perceived physician well-being.”\textsuperscript{124} Other programs such as Ohio University Heritage College’s Urban and Rural Scholars Pathways includes monthly meetings for those in the program to ask questions and collectively work to solve problems that may have arisen with their peers.\textsuperscript{125}

**Recommendation 3c: Utilize new payment models to prevent maternal deaths**

More than one-third of the rural hospitals that still have labor and delivery services are losing money on patient services overall, putting their ability to continue delivering maternity care at risk.\textsuperscript{126} “In Nevada, for example, 3 of the 4 remaining rural hospitals that still provide obstetric services are facing losses on patient services. The median time to an alternative hospital with obstetric services in the state is more than 90 minutes.”\textsuperscript{127} Moreover, the number of providers that are needed to maintain labor and delivery units such as physicians, nurses, and anesthesiologists

\begin{flushleft}
\textsuperscript{119} https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6440410/.
\textsuperscript{120} https://www.acog.org/programs/obstetric-emergencies-in-nonobstetric-settings.
\textsuperscript{122} https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10356718/.
\textsuperscript{123} https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0292917.
\textsuperscript{124} https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0292917.
\textsuperscript{125} https://www.aamc.org/news/attracting-next-generation-physicians-rural-medicine.
\end{flushleft}
are costly. "As a result, payments per birth that are adequate at a large hospital are not enough to support maternity care at small rural hospitals with far fewer births."128

This lack of funding often results from the fact that the prenatal, perinatal, and postpartum care provided by physicians is paid for through a fixed “global” code, regardless of the complexity of the patient receiving the care. This fixed fee fails to support the additional services that are necessary to provide high-quality care for pregnant individuals who have chronic conditions, undergo a high-risk pregnancy, or who experience health-related social needs. Therefore, it is imperative that additional payments are provided in the maternal health space.

Transforming maternal health

In a letter to the CMS, the AMA recommended several steps that the Center for Medicare and Medicaid Innovation (CMMI) can take to ensure the new transforming maternal health (TMaH) program will have a significant, positive impact on maternal health and birth outcomes for pregnant and postpartum women and their infants.129

To be successful, TMaH must address problems leading to lack of access to high-quality health care, including:

- Inadequate payments from Medicaid programs and commercial insurance plans for maternity care services, particularly services for individuals with complex needs and those who have difficulty accessing and utilizing traditional services;
- Burdensome reporting and regulatory requirements on physician practices that divert resources away from patient care and cause physician burnout that contributes to shortages of physicians in primary care, obstetrics and gynecology, and other specialties that are essential for delivering high-quality maternity care;
- Structural and societal barriers that contribute to inequities and disparities in maternal health outcomes; and
- Closures of labor and delivery units in many rural communities, and growing difficulties accessing maternity care for people in both rural and urban areas, both of which are due to a combination of inadequate payments and shortages of maternity care physicians.

CMMI expects to provide $17 million to each state selected to participate in the TMaH program, and this funding would be expected to support activities for a 10-year period. This means each state would only receive about $1.7 million per year. With an average of 30,000 Medicaid-funded births per state each year, this would represent only $57 per birth, and the funding would only represent about $25 per birth if the 15 states with the largest number of Medicaid births participate. It is difficult to imagine how this small amount of money could provide sufficient support for initiatives that would effectively address the serious problems of access and quality in maternity care that exist in every state. CMMI has sufficient resources from Congress to invest more in maternity care, and we urge the Administration to do so.

Moreover, we believe that alternative payment models (APMs) will only be successful if they are developed in collaboration with physicians, if the models provide the resources physicians need to deliver high-quality care, and if the models hold physicians accountable for aspects of costs and outcomes that the physicians can control. Therefore, the AMA urged CMMI to ensure that any APMs are developed in collaboration with physicians who provide maternity care and that the models provide adequate resources to support high-value care.

Acute Unscheduled Care Model

Unfortunately, “problems with pregnancy” is identified as one of the top five reasons for women to visit the emergency department (ED) and studies show that women who use the ED for obstetric care are more likely to identify with racial or ethnic minority groups and to have socioeconomic needs.130,131 Furthermore, a lack of prenatal care has been associated with increased maternal and fetal deaths and related complications.132,133

128. Id.
As such, we urge the Administration to consider the implementation of the Acute Unscheduled Care Model (AUCM) model that was proposed by the American College of Emergency Physicians in 2018. This model would provide special payments to emergency physicians to allow them to have the time needed to focus on transitioning patients into the community safely. Pilot studies using the AUCM model had great success in connecting patients to primary care and the AMA believes that a variation of AUCM would enable emergency physicians to connect pregnant patients to the prenatal or postpartum care that they need.

Conclusion

The pursuit of health equity is a pathway towards excellence in our health care system, one that ensures the valuing of human experience and rights. It is one that recognizes that we must do more as institutions to protect individuals and families.

We recognize that the issues surrounding maternal health are deep-seated, multicultural, and systemically ingrained. As such, it will require a holistic approach to ensure that birthing individuals and their children receive the care they need and deserve. With this in mind, the AMA understands that though these recommendations, if implemented, would have a significant positive impact on maternal health across the nation, this is just a small piece of the overall conversation.

The AMA will continue its work, in partnership with federal and state governments, to advance health equity and improve maternal outcomes across the nation.