



April 3, 2020

The Honorable Charles Grassley
Chair, U.S. Senate
Committee on Finance
Washington, DC 20510

The Honorable Ron Wyden
Ranking Member, U.S. Senate
Committee on Finance
Washington, DC 20510

Dear Chairman Grassley and Ranking Member Wyden:

On behalf of the American Academy of Family Physicians (AAFP), which represents 134,600 family physicians and medical students across the country, I am pleased to provide commentary regarding the committee's request for information on solutions for improving the United States' maternal mortality and morbidity crisis.

Maternal Health in the United States

Currently, the United States' maternal mortality rate (MMR) is alarmingly high and reveals existing faults within the health care system. During a time when maternal outcomes were improving for women in most developed countries, the U.S. MMR is worsening. In fact, the MMR in 1990 was 17 deaths per 100,000 births and increased to 26 deaths per 100,000 births in 2015.ⁱ During that same period global maternal health rates fell by 44%.ⁱⁱ

In the U.S., approximately 700 women die from pregnancy-related complications annually.ⁱⁱⁱ The U.S. also failed to achieve its own Healthy People 2020 maternal health reduction targets.^{iv} There are numerous factors influencing pregnancy-related mortality and morbidity, such as advanced maternal age, education attainment, and underlying health status.^v Disparities also exist between women who belong to racial and ethnic minority groups. The U.S. Centers for Disease Control and Prevention's (CDC) 2019 *Morbidity and Mortality Weekly Report* stated that Non-Hispanic black (black) and non-Hispanic American Indian/Alaska Native (AI/AN) women experienced higher pregnancy-related morbidity ratios (PRMR) (40.8 and 29.7, respectively) than all other racial/ethnic populations (white PRMR was 12.7, Asian/ Pacific Islander PRMR was 13.5 and Hispanic PRMR was 11.5).^{vi} Disparities for pregnancy outcomes also exist when comparing women living in rural areas those living in urban areas.^{vii} With the increasing rates of closure of rural hospitals and obstetric units, pregnant women must travel long distances for maternity care and have worse outcomes.

Family Physicians' Role in Addressing the Maternal Health Crisis

Family physicians have historically provided maternity care, especially with rural and underserved populations. More than one-half of rural hospitals with obstetrics units depend on family physicians to attend births and family physicians continue to attend the majority of births in small hospitals. 28% of rural family physicians continue to provide obstetrical services.^{viii}

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Understanding family medicine's potential role to improve pregnancy related health outcomes, the AAFP established a maternal health [taskforce](#) in 2018. The Academy's programmatic and legislative priorities include retaining obstetric care professionals, supporting maternity care education, increasing the supply of family physicians, reducing health care disparities, improving access to care, and addressing social factors that impact health, also known as social determinants of health (SDoH).

For example, the AAFP is leading an initiative to increase maternity care readiness for practice teams, first responders, hospitals, communities, and maternity care professionals so they are "OB Ready". It is crucial that low-resource hospitals and communities, where physicians no longer provide obstetrical services, connect with appropriate health care resources to help them become "OB ready" by building competencies in basic and advanced obstetric care. In addition to training, rural medical professionals and first responders need adequate supplies and equipment to respond during obstetric emergencies. This includes basic or pre-packaged delivery kits, post-partum hemorrhage kits, and medications for both deliveries and/or common complications. Currently, this initiative is under development but builds on the AAFP's Basic Life Support in Obstetrics ([BLSO](#)) education program that trains first responders, emergency personnel and maternity care clinicians on the standard skills necessary to manage low risk deliveries and obstetric emergencies. The Academy's Advanced Life Support in Obstetrics ([ALSO](#)) education program also helps maternity care teams manage obstetric emergencies. These evidence-based, interprofessional, and multidisciplinary programs are effective in training medical staff and first responders.

We are pleased to provide input on the committee's questions and look forward to future engagement on these recommendations.

Use of Non-Physician Clinicians and Continuity, Coordination of Care

The AAFP encourages health professionals to work together as multidisciplinary, integrated teams in the best interest of patients. The Academy also believes patients are best served when care teams are physician-led. If we are to reduce maternal mortality, we must have high functioning maternity care teams capable of recognizing and handling obstetrical emergencies, including ectopic pregnancy and complex miscarriage, preeclampsia, fetal distress, abruption, endometritis, and postpartum hemorrhage. These teams can consist of obstetrician-gynecologists, family physicians, certified nursing assistants, certified nurse midwives, and nurses, and must be locally accessible. Promoting non-physician clinicians at the expense of such highly functional teams will be counterproductive.

Experts agree that health care delivery and payment reforms that rely less on the traditional, fragmented fee-for-service system and invest in team-based models hold significant potential for improving health and achieving national priorities, including efforts to reduce adverse pregnancy-related outcomes.

Health homes, including patient-centered medical homes, are models of care in which an individual physician—typically a primary care physician—coordinates patient care across providers.^{ix} The AAFP policy on team cares states, "The medical home represents an example of an integrated practice arrangement in which a licensed physician (MD/DO) works with other health care personnel to manage the care of an individual patient and a population of patients using a multidisciplinary, collaborative approach to health care."^x There are important medical home models that address maternal health care.

Strong Start for Mothers and Newborns Initiative (Strong Start). In 2014 the Centers for Medicare & Medicaid Services, Health Resources and Services Administration, and Administration of Children and Families supported the Strong Start medical home prenatal care model to improve maternal and birth outcomes. The Strong Start program paid enhanced rates to state agencies, health networks, and

provider groups to help fund enhanced prenatal care and care coordination. Although the birth outcomes and participation rates were limited, the program was shown to reduce elective caesarian sections by 40%, and thus reduced women's risk for adverse maternal events. The AAFP worked to advance this initiative and urged one hundred hospitals to reduce the number of early nonmedically indicated elective deliveries.^{xi} Although the program ended, the evidence indicates that the medical home model is an important delivery reform that can increase best practices, improve outcomes, and produce savings.

Medicaid Medical Home Models. State Medicaid programs are also advancing medical home models, such as the Centering Pregnancy, a group prenatal model.^{xii} Many of these innovations show promising results for promoting health equity, emphasizing both maternal and child well-being, identifying maternal depression, and addressing beneficiaries' SDoH. Family physicians actively participate in the Medicaid program and the AAFP has consistently supported state Medicaid expansion. The Academy believes adequate Medicaid coverage could play a pivotal role in driving down maternal mortality rates and providing much-needed economic support for critical access hospitals. This can only be achieved by maintaining program stability, enhancing federal medical assistance percentage (FMAP) rates, and increasing the program's low reimbursement payment levels.

Coverage and Standards of Care to Improve Maternal Health

Increasing health care access must be a top maternal health care priority. Patients with a usual source of care, which is fundamental among primary care physicians, have fewer expensive emergency room visits and unnecessary procedures than those without it. These patients benefit from better coordination services, such as after a hospital discharge. Therefore, we assert that physician medical care should be accessible for all who need it. Approximately 25% of all U.S. women do not receive the recommended number of prenatal visits; this number rises to 32% among African Americans and to 41% among American Indian or Alaska Native women. Women receiving no prenatal care are three to four times more likely to have a pregnancy-related death than women who receive prenatal care.^{xiii} Strategies to increase access include expanding health care coverage, reducing health insurance barriers, and supporting quality improvement best practices.

A study published in *Health Affairs* in 2017 found that more than half of all rural counties in the US, with 2.4 million women of reproductive age, had no hospital obstetric services and faced primary-care physician shortages.^{xiv} Data also showed Medicaid expansion states had better maternal health outcomes than non-expansion states.^{xv} Pregnancy Mortality Surveillance System (PMSS) data reviewed by CDC indicated more than 60% of maternal deaths were preventable. It was also noted 31% of deaths happened during pregnancy, 36% occurred at delivery or the week after, and 33% happened one week to one year postpartum. The leading causes of pregnancy-related morbidity and mortality include hemorrhage, infection, cardiovascular conditions, preeclampsia, eclampsia, and embolism. Many women suffer pregnancy complications that are not life threatening, but their health may still be undermined. Therefore, it is important that policymakers consider how guarantee that women can access uninterrupted care after childbirth.

Improving High Deductible Health Care Plans (HDHPs). According to the CDC's National Center for Health Statistics, among adults aged 18-64 with employment-based coverage, the percentage enrolled in a HDHP increased from 14.8% in 2007 to 43.4%. While HDHPs are playing an important role in expanding access to affordable health care coverage, the deductibles associated with the plans are becoming a health care barrier. In fact, data show that beneficiaries with these insurance plans are likely to put off essential care or tests. There is limited research on the impact of HDHP on maternity care. But it is not difficult to analyze that spending thousands of dollars before reaching one's deductible could create a significant financial strain, especially for those whose pregnancies are unplanned. Understanding this, AAFP supported introduction of the *Primary Care Patient Protection Act*

of 2019 (S. 2793). The bill would require HDHPs to provide two primary care visits, which could include family physicians or Ob/Gyns, without cost sharing. Although this does not provide comprehensive prenatal coverage, it does ensure some minimum level of health care access.

Expanding Medicaid Coverage. Currently, 25 million women are enrolled in the Medicaid program and 67% are in their reproductive years, between 19 to 49 years of age. Also, 43% of all U.S. births occur among Medicaid recipients.^{xvi} Currently, 14 states discontinue Medicaid maternity coverage 60 days postpartum which is when 70% of complications occur. These policies leave women without access to care or support for problems during a critical time. For this reason, there is a sustained effort to expand Medicaid coverage into more states. The AAFP supports this policy and has endorsed legislation to expand coverage for up to a year after giving birth. The *Helping Medicaid Offer Maternity Health Services Act* (HR 4996), will allow state Medicaid coverage for postpartum mothers up to one year after delivery and includes enhanced 5% FMAP to encourage state support.

Medicaid Payment Parity. Increasing Medicaid primary care payment rates to no less than the comparable Medicare payments is an important AAFP priority and should be an important one for Congress as well. This proposal was approved as the *Health Care Education and Reconciliation Act* (HCERA), part of the *Patient Protection and Affordable Care Act*. The HCERA included a two-year increase in Medicaid primary care payment rates but unfortunately was not reauthorized. Therefore, Medicaid payment rates continue to lag those of Medicare; nationwide, Medicaid payment rates are two thirds that of Medicare, but can be worse depending on the state. Research has suggested that low Medicaid payment rates has led to lower physician participation and limited access to physician care leads individuals to seek primary care at hospital emergency rooms. Increasing primary care rates in Medicaid is critical to ensuring access to primary care, leading to better quality of care for patients and decreased costs for the states.

Quality Improvement. According to the CDC, 60% of maternal deaths are preventable. Increasing health care access is inadequate if consistent protocols are not in place to reduce patient risks, identify health complications, and respond when emergencies arise. The AAFP supports quality improvement initiatives such as the Alliance for Innovation in Maternal Health (AIM) Program, safety bundles, perinatal care collaboratives. The AIM Program is a national multidisciplinary, intergovernmental initiative where stakeholders identify and implement best practices for improving patient health and safety. Maternal safety bundles are a set of small, straightforward evidence-based practices, which when implemented collectively and reliably, have improved patient outcomes and reduced maternal mortality. The AAFP supports the *Maternal Health Quality Improvement Act* (HR 4995), a bill that supports the AIM program and the development and implementation of outpatient maternal safety bundles. Quality improvement activities led to a dramatic reduction in maternal deaths in the state of California. These efforts are led by the state's Department of Public Health and the California Maternal Quality Care Collaborative and should be scaled up at a national level.

Levels of Care. In 2019, the AAFP supported a consensus document to establish a standardized system for evaluating hospital obstetric care, connecting high resource facilities to provide support for low resource hospitals. The effort was led by American College of Obstetricians and Gynecologists (ACOG) and aims to identify and respond to regional maternal care needs.

Addressing Disparities and Disparate Outcomes

Significant maternal health disparities exist based on race, education and geographical location. Factors that influence patient outcomes include health care access and having a usual source of care. Unfortunately, 50% of pregnancies are unplanned; 25% of women do not receive adequate prenatal care; and one in 10 women is uninsured.

The AAFP believes many health disparities could be addressed by increasing primary care access and supporting programs that address the social factors that impact individuals' health. States with higher primary care physician -to-patient ratios have better health care results, even when controlling for socio-economic and health behaviors. Unfortunately, health care is not distributed evenly across all United States regions. According to a 2018 March of Dimes [report](#), 5 million women live in obstetric deserts and 1,085 hospitals that do not provide services for pregnant women. This has important implications for maternal health. Studies show family physicians tend to practice within 100 miles of where they are trained and that they are high represented within medically underserved areas. Obstetric care has long been an integral part of family medicine, but the number of family physicians providing high volume obstetric care fell by 50% between 2000 and 2010. This was due in large part to the high cost of malpractice insurance, low rates of payment for obstetrical services, and relative shortage of primary care physicians. Therefore, policy makers should invest in primary care workforce strategies, along with policies that would improve health access and financial viability of providing maternity care for both family physicians and hospitals.

Rural Health Disparities. A CDC study indicated that patients in rural areas tend to have shorter life spans, and access to health care is one of several factors contributing to rural health disparities. The findings highlighted in the CDC's report are consistent with other studies on health equity, including a longitudinal study published in *JAMA Internal Medicine*, indicating that a person's zip code may have as much influence on their health and life expectancy as their genetic code.^{xvii}

Current trends in hospital and obstetric unit closures will further increase rural health disparities. There have been 121 rural hospital closures in the last 10 years with an additional 673 facilities which are vulnerable and could close, representing more than one-third of rural hospitals in the U.S. Of the rural hospitals that remain, more than half are not offering maternity care. Currently 18 million women of reproductive age live in rural communities. Distance to maternity care has a direct impact on outcomes for both pregnant women and newborns.

Achieving Equity in Maternal Morbidity and Mortality. According to data from the CDC's PMSS, between 2007 and 2016, the maternal mortality rate for black women was 40.8 deaths per 100,000 live births. This is more than three times the rate for white women, which was 12.7 deaths per 100,000 live births. The data show that African American and Native American/Alaska Native women experience maternal health death three to four times more often than white women.^{xviii} For African-American women, maternal health rates have persisted for 60 years.^{xix} Some outcomes are improved through health care access and implementation of best practices, such as group prenatal care visits.^{xx} But, most community-based programs target the Medicaid and Children's Health Insurance Program (CHIP) beneficiaries and fail to address women of color who within higher socio-economic strata, but still experience maternal health disparities.

Among the women who survive pregnancy and childbirth, each year nearly a half million of them will experience a life-threatening pregnancy related complication, or severe maternal morbidity (SMM).^{xxi} Of those, the majority will be women of color. These disparities widen for low income women and for women living in rural areas. The AAFP recognizes that these unequal outcomes are the consequence of decades of structural and system-wide inequities designed to deliver unequal and disparate care for women of color based on institutionalized racism and the unconscious biases of health care providers towards women of color.

A 2017-18 Council of Academic Medicine Program Directors Diversity Survey indicated that only 64% of family medicine residency programs offered training for faculty and residents on addressing implicit bias. Although implicit predispositions may be difficult to detect, unchecked patience bias can result in lower quality care, which can have very tangible results. As a result, the AAFP recommends educating physicians about implicit bias and strategies to address it to support culturally appropriate, patient-

centered care and reduce health disparities; Educating physicians about inequities in maternal morbidity and mortality and supports strategies that integrate birth equity into the delivery of family-centered maternity care; All health care systems, hospitals, clinics and institutions adopt anti-racist policies that advocate for individual conduct, practices and policies that promote inclusiveness, interdependence, acknowledgment and respect for racial and ethnic differences. Organizations take an active approach to dismantling racism by conducting a comprehensive critical examination of policies and procedures, empowering the development of diverse formal and informal leadership and developing a plan that increases accountability, demonstrates transparency, and reorganizes power.

In addition, numerous studies have demonstrated that developing a diverse health care workforce that reflects the communities it serves reduces health disparities. Primary care doctors are most likely to work in medically underserved communities with populations that are also disproportionately minority and low income. Increasing the number of diverse family medicine physicians who provide obstetric care in these areas in an effective way to address maternal health disparities.

Enhancing the Primary Care Workforce. The AAFP recommends training models that produce enough primary care physicians to meet state population needs and to reduce current maldistribution challenges that significantly impact rural communities. The Teaching Health Center Graduate Medical Education Program (THCGME) addresses that by training primary care and other needed specialties in outpatients, community-based settings. The THCGME program has a strong track record of attracting and retaining physicians to medically underserved area (MUA) since its creation in 2010. The AAFP supports funding Teaching Health Centers with Medicare Direct Graduate Medical Education payments.

The AAFP also supports the *Rural Physician Workforce Production Act* of 2019 (S. 289), which would provide federal support for rural residency training and help alleviate physician shortages in rural communities. Evidence indicates that one of the most promising ways to recruit physicians to practice in rural areas is through rural experiences during their residency training. The *Rural Physician Workforce Production Act* is also supported by ACOG and National Rural Health Association. Currently, numerous incentives in the Medicare program discourage hospitals—even those in communities that desperately need new physicians—from providing such opportunities. The financial incentives specified in the *Rural Physician Workforce Production Act* would also extend to urban hospitals for the purpose of growing the number of residents in rural training tracks.

Family physicians comprise just under 15% of the U.S. outpatient physician workforce, yet they perform 23% of the visits that Americans make to their physicians each year.^{xxii} In rural areas, an even greater proportion, about 42%, of these visits are to family physician offices. According to a 2019 Robert Graham Center brief, the aging population of family physicians will worsen current rural workforce shortages, particularly in 12 states (AL, AZ, CT, FL, ME, MS, NH, NM, OK, TN, TX, and VT).^{xxiii}

Attracting and Retaining Family Physicians. Family Physicians are important maternal health stakeholders because of where they practice and how they are trained to care for a broad range of patients. Family physicians deliver babies, care for children, provide prenatal care, and are adept at addressing complex chronic health challenges. According to a 2014 *Journal of the American Board of Family Medicine* study, primary care physicians were more likely than others to address concurrent medical problems among pregnant women. This is an important consideration given the association of chronic disease with both maternal mortality and post-partum complications. Recognizing family physicians' role in providing a range of health care services for women, the AAFP created the 25x2030 [initiative](#) to grow and retain the primary care doctors. The Academy also supports proposals to retain other clinicians providing obstetrical services in rural communities.

There are numerous factors that influence primary care workforce retention including medical education debt, high medical liability premiums, low payment reimbursement, and physician burn out. There is consistent U.S. and global data indicating that primary care shortages will require meaningful reforms, including policies to address where doctors are distributed and strategies to retain doctors within medically underserved communities.^{xxiv} The AAFP supports primary care preceptor incentive programs that provide tax credits to encourage family physicians who may wish to mentor medical students, residents, and new physicians.^{xxv} Five states (CO, GA, HI, MD, SC) have enacted preceptor tax credit programs. Preceptorship programs have shown significant results in influencing medical students to choose primary care. However, these state programs have suffered due to decreased funding and recruitment challenges.

Data Collection and Effective Evaluation to Improve Outcomes and Quality

States created Maternal Mortality Review Committees (MMRCs) to collect and analyze maternal death data to understand the cause of maternal death and to inform policy solutions. Recognizing the value of MMRCs, Congress enacted landmark legislation, the *Preventing Maternal Deaths Act of 2018*, to expand these multidisciplinary teams nationwide. This progress is important because MMRCs have helped support improvements in the state of California and other jurisdictions, but more states need to develop their own boards. For example, 12 states have not yet established MMRCs.^{xxvi} This represents an underutilized resource that can help inform new policy solutions. Congress should consider increasing incentives and enacting legislation to standardize data collection efforts. Currently, the AAFP supports the *MOMMA's Act* (S.916) and *Rural MOMS Act* (S. 2373), to streamline data collection.

Social Services Aimed at Supporting Mother and Child Wellbeing

Social service programs with the greatest potential for addressing maternal and child well-being are those that address SDoH, emphasize health, incorporate behavioral health, and support the needs of mothers and infants simultaneously. We know that social factors outside of the health care sector impact patients' ability to achieve optimal health, the AAFP urges funders, including the federal government, to provide adequate funding for SDoH and related programs.

AAFP's Neighborhood Navigator. Consistent with the AAFP's commitment to achieving health equity, the organization urges members to understand and respond to patients' SDoH. The AAFP developed a new SDOH screening [tool](#) as part of an initiative called the EveryONE Project, and actively promotes this tool to our members. The Academy also offers family physicians use of the AAFP's nationwide [Neighborhood Navigator](#) referral network, which connects patients to food, housing and other resources to address SDOH based on their individual needs. A 2017 survey that found that nearly 60% of family physician respondents indicated that they screen patients for SDOH and 52% said they followed up on referred patients to community-based social services.

Home Visiting. One highly effective maternal and child well-being program is home visiting, where nurses, doctors, or social workers provide home-based health care, coaching, behavioral health screening, and parenting support for vulnerable pregnant and postpartum women and their children. Seventy percent of program participants have incomes at or below 100 percent of the Federal Poverty Level, 65% had high school degrees or less, and 76% participated in the Medicaid and CHIP program. Participants also have a history of maltreatment, teen pregnancy, and substance abuse.

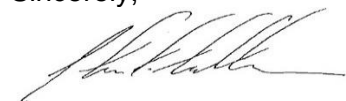
Programs are usually funded with public and private funding. The federal Maternal Infant and Early Childhood Home Visiting (MIECHV) program achieved positive maternal and child health outcomes, increased children's educational readiness, and reduced Medicaid spending. Home visiting also helps connect mothers and their children with social services. Through this effort, home visiting programs work to advance outpatient maternal health safety bundles.

During the program's reauthorization, Congress increased funding to address maternal mortality and morbidity. This is an important development because of the program's history of success. Currently, the MIECHV program collaborates with the AIM – Community Care Initiative. In fiscal year 2019, MIECHV supported 154,000 families and conducted one million visits.^{xxvii} This is a small fraction of the potential families who could benefit from these services. Medicaid has become a financing option for home visiting services. An estimated 33 states cover home visiting services through Medicaid. Currently, states are leveraging Medicaid to pay for home visiting services through state plan amendments, demonstration waivers, and integrating home visiting into managed care arrangements.^{xxviii}

Conclusion

The United States currently has worsening maternal health outcomes. The reasons are multifactorial, but family physicians are essential for improving these statistics. The AAFP is pleased to provide comments regarding important solutions for addressing the nation's maternal mortality crisis. We welcome the opportunity to discuss these and other strategies with you. For more information, please contact Sonya Clay, Government Relations Representative, at 202-655-4905 or sclay@aaafp.org.

Sincerely,



John S. Cullen, MD, FAAFP
Board Chair

ⁱ Maternal Health in the United States, Harvard Chan School, Maternal Health Taskforce report, accessed online: <https://www.mhtf.org/topics/maternal-health-in-the-united-states/>

ⁱⁱ Ibid

ⁱⁱⁱ U.S. Centers for Disease Control and Prevention, May 2019 Vital Signs, Pregnancy Related Deaths Fact Sheet, accessed online: <https://www.cdc.gov/vitalsigns/maternal-deaths/index.html>

^{iv} Maternal Health in the United States, Harvard Chan School.

^v Vilda, Dovile et al. "Income inequality and racial disparities in pregnancy-related mortality in the US." *SSM - population health* vol. 9 100477. 28 Aug. 2019, doi:10.1016/j.ssmph.2019.100477

^{vi} Petersen, EE, Davis NL, Goodman D, et al, Racial/Ethnic Disparities in Pregnancy-Related Death-United States, 2007-2016. *MMWR Morb, Mortal Wkly Rep* 2019; 68: 762-765. DOI: https://www.cdc.gov/mmwr/volumes/68/wr/mm6835a3.htm?s_cid=mm6835a3_w

^{vii} American College of Obstetrics and Gynecology, 2014, <https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2014/02/health-disparities-in-rural-women>

^{viii} Kozhimannil KB, Casey MM, Hung P, et al. The rural obstetric workforce in US hospitals: challenges and opportunities. *J Rural Health*. 2015;31(4):365–372.

^{ix} U.S. Department of Health and Human Services Agency for Healthcare Research and Quality, "Defining the PCMH," available at <https://pcmh.ahrq.gov/page/defining-pcmh>

^x American Academy of Family Physicians, Team Based Care Policy, 2017

^{xi} Brown M, AAFP News, 2013, AAFP, Others Urge Hospitals to Stop Early Elective Deliveries, accessed online: <https://www.aaafp.org/news/health-of-the-public/20130508strongstartltr.html>

^{xii} Waldrop T, Center for American Progress, Improving Women's Health Through Delivery System Through Payment and Delivery System Reform, accessed online: <https://www.americanprogress.org/issues/healthcare/reports/2019/06/28/471445/improving-womens-health-outcomes-payment-delivery-system-reform/>

^{xiii} Contraception Journal, [https://www.contraceptionjournal.org/article/S0010-7824\(10\)00685-2/pdf](https://www.contraceptionjournal.org/article/S0010-7824(10)00685-2/pdf)

^{xiv} Health Affairs Blog, <https://www.healthaffairs.org/doi/10.1377/hblog20200226.167484/full/>

^{xv} Searing A et al, Georgetown Health Policy Institute, May 2019, Medicaid Expansion Fills Gaps In Maternal Health Coverage Leading to Healthier Mothers and Babies, accessed online: <https://ccf.georgetown.edu/wp-content/uploads/2019/05/Maternal-Health-3a.pdf>

^{xvi} Kaiser Family Foundation, Fact Sheet, Medicaid's Role for Women, 2019, accessed online: <https://www.kff.org/womens-health-policy/fact-sheet/medicaids-role-for-women/>

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- ^{xvii} Dwyer-Lindgren L, Bertozzi-Villa A, Stubbs RW, Morozoff C, Mackenbach JP, van Lenthe FJ, Mokdad AH, Murray CJL. Inequalities in Life Expectancy Among US Counties, 1980 to 2014 Temporal Trends and Key Drivers. *JAMA Intern Med.* 2017;177(7):1003–1011. doi:10.1001/jamainternmed.2017.0918
- ^{xviii} CDC, Maternal Health Fact Sheet
- ^{xix} HRSA, <https://www.hrsa.gov/sites/default/files/ourstories/mchb75th/mchb75maternalmortality.pdf>
- ^{xx} ACOG, Group Prenatal Care, 2018, Clinical Guidance, accessed online: <https://www.acog.org/en/Clinical/Clinical%20Guidance/Committee%20Opinion/Articles/2018/03/Group%20Prenatal%20Care>
- ^{xxi} <https://www.americanprogress.org/issues/women/reports/2019/05/02/469186/eliminating-racial-disparities-maternal-infant-mortality/>
- ^{xxii} AAFP, Position Paper, Rural Practice, <https://www.aafp.org/about/policies/all/rural-practice-paper.html>
- ^{xxiii} Wilkinson E, Bazemore E, Jabbarpour MD Y, *Am Fam Physician.* 2019 Jun 15;99(12):743. accessed online: <https://www.aafp.org/afp/2019/0615/p743.html>
- ^{xxiv} Verma P, Ford JA, Stuart A, Howe A, Everington S, Steel N. A systematic review of strategies to recruit and retain primary care doctors. *BMC Health Serv Res.* 2016;16:126. Published 2016 Apr 12. doi:10.1186/s12913-016-1370-1, accessed online: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4828812/>
- ^{xxv} AAFP Backgrounder, Family Physician Tax Preceptor, 2020, accessed online: <https://www.aafp.org/dam/AAFP/documents/advocacy/workforce/gme/BKG-PreceptorTaxCredit.pdf>
- ^{xxvi} Review to Action, MMRC Map, accessed online: <https://reviewtoaction.org/content/mmr-map>
- ^{xxvii} HRSA, <https://mchb.hrsa.gov/maternal-child-health-initiatives/home-visiting-overview>
- ^{xxviii} Burak E, Georgetown Health Policy Institute, 2019, How are States Using Medicaid to Pay for Home Visiting?, accessed online: <https://ccf.georgetown.edu/2019/01/24/how-are-states-using-medicaid-to-pay-for-home-visiting-new-paper-offers-more-clarity/>