

# State of the Maternal Health Workforce Brief

August 2022

The United States has a high maternal mortality rate compared to other high-income nations.<sup>1</sup> Furthermore, each year as many as 60,000 women in the country experience severe maternal morbidity resulting in short- or long-term health problems.<sup>2</sup> As a result, in December 2021, the White House announced a historic Call to Action to improve health outcomes for parents and infants in the United States. The [White House Blueprint for Addressing the Maternal Health Crisis](#) includes plans to increase access to and coverage of maternal health services, expand and diversify the maternal health workforce, improve data collection, and enhance research.<sup>3</sup>

This brief provides data on the maternal health workforce, including information on demographics and comparisons to the female population of childbearing age, to assist policymakers and other stakeholders in analyzing the maternal health workforce and developing workforce education, training, and other programs to improve maternal health outcomes, particularly for under-resourced populations.

Goal 1 in the White House Blueprint for Addressing the Maternal Health Crisis is to “Increase Access to and Coverage of Comprehensive High-Quality Maternal Health Services, Including Behavioral Health Services.”<sup>4</sup> There is still much to be done to achieve this goal as 10,278,619 women in 2020 lived in U.S. counties that had no OBGYN physicians, 4,052,174 of which were of childbearing age. This accounted for 6% of all women and 5.4% of women of childbearing age in the United States.<sup>5</sup>

**Data:** Various datasets were used by the National Center for Health Workforce Analysis (NCHWA) to prepare this brief. Sources and reference years are noted with each data point. Data cover the 50 states and Washington, DC, unless otherwise noted. Workforce data are presented as counts of providers unless otherwise noted.

## About the National Center for Health Workforce Analysis

The National Center for Health Workforce Analysis informs public and private sector decision makers on health workforce issues by expanding and improving health workforce data, disseminating workforce data to the public, and improving and updating projections of the supply and demand for health workers.

For more information, visit the [Health Workforce Analysis](#) webpage.

**Definitions:** For this brief, the maternal workforce includes all family medicine physicians, general internal medicine physicians, obstetrics and gynecology (OBGYN) physicians, physicians specializing in neonatology or perinatal health, and nurse midwives as well as registered nurses (RNs) in women’s health or with a maternal/perinatal specialization. While doulas play an important and expanding role in maternal care, data on the number of doulas in the United States is not readily available. As such, doulas are excluded from the discussion of the size of the maternal workforce below. Similarly, maternal care coordinators are important sources of information about care options and assist women with connecting with providers. However, data on the number of care coordinators is not readily available.

This brief uses the terms “women” and “female” to align with language in cited secondary data sources. The analysis and recommendations presented in this brief are meant to be inclusive of every person giving birth, irrespective of orientation, identity, or demographic background.

## The Size and Composition of the Maternal Workforce

- More than 285,000 physicians (family medicine, OBGYN, general internal medicine, and neonatal and perinatal medicine) and approximately 218,000 nurses (nurse midwives, registered nurses specializing in gynecology, obstetrics, labor and delivery, and neonatology) are considered part of the maternal workforce (Table 1).

**Table 1: Current Maternal Health Workforce in the United States**

| Occupation                             | Employment<br>(reference year) |
|--|--------------------------------|
| Family medicine physicians             | 110,663 (2020)                 |
| General internal medicine physicians   | 125,278 (2020)                 |
| OBGYN physicians                       | 43,180 (2020)                  |
| Neonatal and perinatal physicians      | 6,093 (2020)                   |
| Nurse midwives                         | 13,409 (2021) <sup>a</sup>     |
| Registered nurses (in maternal health) | 218,292 (2017) <sup>b</sup>    |

Sources: Physicians data calculated from the 2020 American Medical Association (AMA) Masterfile; Nurse midwives data is from the American Midwifery Certification Board, [2021 Demographic Report](#); Registered nurses data is from the 2018 National Sample Survey of Registered Nurses (NSSRN).

<sup>a</sup> Total reflects the number of certified nurse-midwives and certified midwives.

<sup>b</sup> Includes nurse midwives.

- While the maternal workforce is expected to grow over the next decade, there is projected to be a shortage of physicians in family medicine and general internal medicine in primary care as well as OBGYN physicians in women's health in 2030, based on current utilization patterns (Table 2). Assuming current patterns of care use continue in the future, there is a projected surplus in nurse midwives, nurse practitioners, and physician assistants in women's health services, after accounting for anticipated demographic changes.

- Meanwhile, the number of women of standard childbearing age (ages 15-49) is projected to grow from 74.6 million in 2019 to 78.5 million in 2030, an increase of 3.9 million (Table 3).

**Table 2: Projected Maternal Workforce Adequacy for the United States, 2030**  
(in full-time equivalents – FTEs<sup>a</sup>)

| Occupation  | Percent of projected demand met by projected supply | Projected surplus or (shortage) in full-time equivalents based on current utilization patterns |
|---|---|--|
| Family medicine physicians (primary care)           | 87%   | (17,210)   |
| General internal medicine physicians (primary care) | 84%   | (17,660)   |
| OBGYN physicians (women’s health)                   | 90%   | (5,170)  |
| Nurse midwives (women’s health)                     | 126%  | 2,690  |
| Nurse practitioners (women’s health)                | 181%  | 8,970  |
| Physician assistants (women’s health)               | 151%  | 780  |

Source: U.S. Department of Health and Human Services, Health Resources and Services Administration, National Center for Health Workforce Analysis, [Projections of Supply and Demand for Women’s Health Service Providers: 2018-2030](#) (Exhibit 1) and [HRSA Workforce Projections Dashboard](#).

Note: Projections do not reflect impact of the pandemic.

<sup>a</sup> Data are presented in full-time equivalents (FTEs). An FTE is defined as working 40 hours per week.

**Table 3: Women Ages 15-49 in the United States, Selected Years**

| Year             | Population |
|------------------|------------|
| 2017             | 74,410,042 |
| 2020             | 74,641,534 |
| 2025 (projected) | 76,932,000 |
| 2030 (projected) | 78,543,000 |

Source: HRSA calculations of data from the U.S. Census Bureau’s [2020 Census County Population Estimates](#) (Annual County Resident Population Estimates by Selected Age Groups and Sex: April 1, 2010 to July 1, 2019; April 1, 2020; and July 1, 2020) and the U.S. Census Bureau’s [2017 National Population Projections Tables](#), (Projected Population by Single Year of Age, Sex, Race, and Hispanic Origin for the United States: 2016 to 2060, Main Series).

- The race and ethnicity of physicians in the maternal workforce differs by clinical specialty (Table 4a). As of 2018, the percent of internal medicine physicians that were Non-Hispanic Asian was 28.6%, which was higher than the percent of all active physicians that were Non-Hispanic Asian (19.8%). The percent of maternal health physicians that were Non-Hispanic Black or African American ranged from 6.6% in family medicine to 10.9% for OBGYNs, compared to 5.7% for all active physicians. The percent of internal medicine physicians that were Non-Hispanic White (53.8%) is lower than the percent for all active physicians (65.2%).
- As of December 31, 2017, the percent of RNs that were Non-Hispanic White was higher for maternal health RNs than for all RNs with patient care responsibilities (Table 4b). A greater percent of maternal health RNs were Hispanic than all RNs (14.3% compared to 10.9%).

**Table 4a: Maternal Health Physicians: Race and Ethnicity by Select Clinical Specialty, 2018**

| Clinical Specialty                                  | Total Count    | Hispanic    | White, Non-Hispanic | Black or African American, Non-Hispanic | Asian, Non-Hispanic | American Indian or Alaska Native, Non-Hispanic | Other <sup>b</sup> or Multiple Races, Non-Hispanic |
|---|----------------|-------------|---------------------|---|---------------------|--|--|
| <b>All Active Physicians<sup>a</sup></b>            | <b>792,403</b> | <b>6.8%</b> | <b>65.2%</b>        | <b>5.7%</b>                             | <b>19.8%</b>        | <b>0.3%</b>                                    | <b>2.2%</b>  |
| <b>All Maternal Health Physicians<sup>a,c</sup></b> | <b>233,429</b> | <b>7.5%</b> | <b>61.8%</b>        | <b>7.8%</b>                             | <b>20.4%</b>        | <b>0.4%</b>                                    | <b>2.1%</b>  |
| Family Medicine                                     | 99,066         | 7.7%        | 67.5%               | 6.6%                                    | 15.5%               | 0.6%   | 2.0%   |
| Internal Medicine                                   | 97,009         | 7.1%        | 53.8%               | 7.8%                                    | 28.6%               | 0.2%   | 2.4%   |
| OBGYN   | 37,354         | 7.6%        | 67.5%               | 10.9%                                   | 11.8%               | 0.4%   | 1.8%   |

Source: HRSA calculations of data from Association of American Medical Colleges, [Diversity in Medicine: Facts and Figures 2019](#), Tables 11-13.

Note: Numbers may not add to 100% due to rounding.

<sup>a</sup> Excludes physicians with unknown race/ethnicity.

<sup>b</sup> Due to the small number of observations, Native Hawaiian and Pacific Islanders are included in Other.

<sup>c</sup> Physicians with a neonatal or perinatal specialty are excluded due to data limitations.

**Table 4b: Maternal Health RNs: Race and Ethnicity by Select Clinical Specialty, 2017**

| Clinical Specialty                                     | Total Count      | Hispanic     | White, Non-Hispanic | Black or African American, Non-Hispanic | Asian, Non-Hispanic | American Indian or Alaska Native, Non-Hispanic | Other <sup>b</sup> or Multiple Races, Non-Hispanic |
|--|------------------|--------------|---------------------|---|---------------------|--|--|
| <b>All RNs<sup>a</sup></b>                             | <b>2,730,053</b> | <b>10.9%</b> | <b>71.9%</b>        | <b>7.5%</b>                             | <b>5.8%</b>         | <b>0.3%</b>                                    | <b>3.6%</b>  |
| <b>All Maternal Health RNs<sup>a</sup></b>             | <b>218,292</b>   | <b>14.3%</b> | <b>73.3%</b>        | <b>5.6%</b>                             | <b>4.3%</b>         | <b>0.3%</b>                                    | <b>2.2%</b>  |
| Gynecology   | 32,089           | 10.3%        | 76.2%               | 7.4%                                    | 3.0%                | 0.6%   | 2.6%   |
| Labor and Delivery                                     | 94,239           | 18.3%        | 69.4%               | 4.4%                                    | 4.5%                | 0.3%   | 3.1%   |
| Obstetrics   | 76,591           | 12.0%        | 74.9%               | 7.0%                                    | 4.6%                | 0.3%   | 1.1%   |
| Neonatology  | 14,608           | 10.1%        | 85.2%               | 2.0%                                    | 1.8%                | 0.0%   | 0.8%   |
| Licensed Midwives, with other specialties <sup>c</sup> | 765              | 8.8%         | 47.7%               | 0.0%                                    | 40.2%               | 0.0%   | 1.5%   |

Source: HRSA calculations based on 2017 data from the 2018 National Sample Survey of Registered Nurses (NSSRN).

Note: Numbers may not add to 100% due to rounding.

<sup>a</sup> Includes Advanced Practice Registered Nurses (APRNs), which include Nurse Practitioners, Certified Nurse Midwives, Clinical Nurse Specialists, and Nurse Anesthetists.

<sup>b</sup> Due to the small number of observations, Native Hawaiian and Pacific Islanders are included in Other.

<sup>c</sup> Only includes midwives working in a job that requires a midwife license that reported a specialty other than gynecology, labor and delivery, obstetrics, neonatology.

- Overall, the percent of maternal health physicians that were Hispanic (7.5%) or Non-Hispanic Black or African American (7.8%) was lower than the percent of the female population of childbearing age that was Hispanic (20.5%) or Non-Hispanic Black or African American (13.8%) in 2018 (Table 5). In contrast, the percent of maternal health physicians that were Non-Hispanic White (61.8%) exceeded the percent of female population of

childbearing age that were Non-Hispanic White (55.6%). A similar pattern is observed for maternal health RNs. The percent of maternal health physicians that were Non-Hispanic Asian (20.4%) exceeded the percent of the female population of childbearing age that was Non-Hispanic Asian (6.8%).

**Table 5: Race/Ethnicity of Maternal Workforce Compared to Female Population of Childbearing Age**

| Race/Ethnicity                                     | Maternal Physicians <sup>a</sup> | Maternal RNs <sup>b</sup> | Female Population, Ages 15-49, 2018 | Female Population, Ages 15-49, 2030 |
|--|----------------------------------|---------------------------|-------------------------------------|-------------------------------------|
| Hispanic   | 7.5%                             | 14.3%                     | 20.5%                               | 23.6%                               |
| White, Non-Hispanic                                | 61.8%                            | 73.3%                     | 55.6%                               | 50.8%                               |
| Black and African American, Non-Hispanic           | 7.8%                             | 5.6%                      | 13.8%                               | 13.8%                               |
| Asian, Non-Hispanic                                | 20.4%                            | 4.3%                      | 6.8%                                | 7.8%                                |
| American Indian and Native Alaskan, Non-Hispanic   | 0.4%                             | 0.3%                      | 0.8%                                | 0.8%                                |
| Other or Multiple Races, Non-Hispanic <sup>c</sup> | 2.1%                             | 2.2%                      | 2.5%                                | 3.3%                                |

Source: HRSA calculations of data from Association of American Medical Colleges, [Diversity in Medicine: Facts and Figures 2019](#), Tables 12 and 13, the 2018 National Sample Survey of Registered Nurses (NSSRN), and the U.S. Census Bureau's [2017 National Population Projections Tables](#), (Projected Population by Single Year of Age, Sex, Race, and Hispanic Origin for the United States: 2016 to 2060, Main Series).

Note: Numbers may not add to 100% due to rounding.

<sup>a</sup> Includes physicians specializing in 'Family Medicine', 'Internal Medicine', and 'Obstetrics/Gynecology'. Excludes physicians with unknown race/ethnicity. Physicians with a neonatal or perinatal specialty are excluded due to data limitations.

<sup>b</sup> Includes Advanced Practice Registered Nurses (APRNs), which include Nurse Practitioners, Certified Nurse Midwives, Clinical Nurse Specialists, and Nurse Anesthetists. Only includes RNs with patient care responsibilities.

<sup>c</sup> Due to the small number of observations, Native Hawaiian and Pacific Islanders are included in Other.

- The age distribution of RNs also differs by clinical specialty (Table 6). As of December 31, 2017, the average age for maternal health RNs was 44.7, compared to 46.5 for all nurses employed as RNs. Similarly, 42.2% of maternal health RNs were younger than 40, compared to 34.7% of all RNs.

**Table 6: Age Distribution of RNs<sup>a</sup> by Select Clinical Specialty, 2017**

| Clinical Specialty                                     | Average Age (Years) | Less than 40 Years of Age (%) | Ages 40 to 64 (%) | Ages 65 and Older (%) |
|--|---------------------|-------------------------------|-------------------|-----------------------|
| <b>All RNs</b>   | <b>46.5</b>         | <b>34.7%</b>                  | <b>57.8%</b>      | <b>7.6%</b>           |
| <b>All Maternal Workforce RNs</b>                      | <b>44.7</b>         | <b>42.2%</b>                  | <b>52.3%</b>      | <b>5.5%</b>           |
| Gynecology   | 46.7                | 34.8%                         | 59.6%             | 5.6%                  |
| Labor and Delivery                                     | 42.7                | 45.8%                         | 50.7%             | 3.5%                  |
| Obstetrics   | 46.2                | 40.6%                         | 51.0%             | 8.4%                  |
| Neonatology  | 44.4                | 44.8%                         | 52.7%             | 2.6%                  |
| Licensed Midwives, with other specialties <sup>b</sup> | 53.4                | 6.0%                          | 69.3%             | 24.7%                 |

Source: HRSA calculations based on 2017 data from the 2018 National Sample Survey of Registered Nurses (NSSRN).

Note: Numbers may not add to 100% due to rounding.

<sup>a</sup> Includes Advanced Practice Registered Nurses (APRNs), which include Nurse Practitioners, Certified Nurse Midwives, Clinical Nurse Specialists, and Nurse Anesthetists. Only includes RNs with patient care responsibilities.

<sup>b</sup> Only includes midwives working in a job that requires a midwife license that reported a specialty other than gynecology, labor and delivery, obstetrics, or neonatology.

## The Geographic Distribution of the Maternal Workforce

- Maternal health physicians tend to be more concentrated in large and medium metropolitan areas than the female population of childbearing age (Table 7). In 2020, only 3.7% of internal medicine physicians and 4.3% of OBGYNs were located in micropolitan and noncore areas (i.e., areas with a population less than 50,000), compared to 10.6% of females ages 15-49. In contrast, the percent of family medicine physicians in micropolitan and noncore areas is similar to the percent of female childbearing population. However, family medicine is a broad specialization that includes maternal health as well as other types of health care.
- In 2030, the supply of OBGYN physicians in metro areas is projected to meet 95% of demand. For nonmetro areas, that figure is 51%.<sup>6</sup>
- Analysis of 2015 and 2016 data from the National Ambulatory Medical Care Survey (NAMCS) finds that in visits where the patient was a female age 13 or older, roughly 7% of overall family medicine physician time was dedicated to providing women’s health services. This proportion of time is higher for physicians practicing in nonmetropolitan areas (9.4%) than for their peers practicing in metropolitan areas (6.6%).<sup>7</sup>

**Table 7: Rurality of Maternal Health Physicians Compared to Female Population of Childbearing Age, 2020**

| Rurality <sup>a</sup>    | Family Medicine Physicians | Internal Medicine Physicians | OBGYN Physicians | Neonatal and Perinatal Physicians | Female Population, Ages 15-49 |
|--------------------------|----------------------------|------------------------------|------------------|-----------------------------------|-------------------------------|
| Large metropolitan area  | 25.9%                      | 37.9%                        | 36.1%            | 40.5%                             | 30.7%                         |
| Medium metropolitan area | 37.0%                      | 42.0%                        | 41.4%            | 45.0%                             | 35.8%                         |
| Small metro area         | 25.6%                      | 16.4%                        | 18.1%            | 13.1%                             | 23.0%                         |
| Micropolitan area        | 10.3%                      | 3.5%                         | 4.2%             | 1.3%                              | 9.6%                          |
| Noncore area             | 1.3%                       | 0.2%                         | 0.1%             | 0.1%                              | 1.0%                          |

Source: HRSA calculations of data from the 2020 American Medical Association (AMA) Masterfile and the U.S. Census Bureau's [2020 Census County Population Estimates](#) (Annual County Resident Population Estimates by Selected Age Groups and Sex: April 1, 2010 to July 1, 2019; April 1, 2020; and July 1, 2020).

Note: Numbers may not add to 100% due to rounding.

<sup>a</sup> Rurality based on the National Center for Health Statistics' Urban-Rural Classification Scheme. Large metro areas are counties with a population of 1,000,000 or more. Medium metro areas are defined as counties with a population between 250,000 and 999,999. Small metro counties have a population between 50,000 and 249,999. Micropolitan counties have a population between 10,000 and 49,999. Noncore areas are counties with a population less than 10,000.

## Patient Care Time Among Maternal Health RNs

- Maternal health RNs generally spend a greater percent of their time on patient care than RNs with other specialties. In 2017, maternal health RNs spent an average of 71.3% of their time on patient care, compared to an average across all RNs of 64.8%. In fact, the maternal specialties (gynecology, obstetrics, labor and delivery, and neonatology) are among the top five clinical specialties in terms of the average percent of time spent on patient care (Table 8a).

**Table 8a: RN Clinical Specialties with Highest Percent of Time Spent on Patient Care, 2017**

| Clinical Specialty | Percent of Time Spent on Patient Care |
|--------------------|---------------------------------------|
| Obstetrics         | 72.1%                                 |
| Neonatology        | 71.0%                                 |
| Labor and Delivery | 70.9%                                 |
| Gynecology         | 70.5%                                 |
| Gastrointestinal   | 70.0%                                 |

Source: HRSA calculations based on 2017 data from the 2018 National Sample Survey of Registered Nurses (NSSRN).

Note: Data includes Advanced Practice Registered Nurses (APRNs), which include Nurse Practitioners, Certified Nurse Midwives, Clinical Nurse Specialists, and Nurse Anesthetists. Only includes RNs with patient care responsibilities.

**Table 8b: RN Clinical Specialties with Lowest Percent of Time Spent on Patient Care, 2017**

| Clinical Specialty              | Percent of Time Spent on Patient Care |
|---------------------------------|---------------------------------------|
| Gerontology                     | 44.8%                                 |
| Infectious/Communicable Disease | 47.7%                                 |
| Cardiac or Cardiovascular Care  | 53.2%                                 |
| Occupational Health             | 56.6%                                 |
| Renal/Dialysis                  | 59.9%                                 |

Source: HRSA calculations based on 2017 data from the 2018 National Sample Survey of Registered Nurses (NSSRN).  
Note: Data includes Advanced Practice Registered Nurses (APRNs), which include Nurse Practitioners, Certified Nurse Midwives, Clinical Nurse Specialists, and Nurse Anesthetists. Only includes RNs with patient care responsibilities.

## Conclusions

Given the projected shortages in maternal health physicians and the misdistribution of the maternal workforce across states and counties, it is important to focus on workforce issues, such as recruitment, placement, and retention, as well as ways to encourage providers to locate in under-resourced areas. A review of recent scientific literature and proposals highlight a number of possible interventions for expanding the maternal health workforce, particularly in under-resourced areas:

- Provide grants for accredited schools of medicine, nursing, and other health professional training to establish or expand maternal/perinatal care programs, including (but not limited to) schools located in areas with a shortage of qualified maternal care.<sup>8</sup>
- Encourage collaboration between health care facilities that have obstetric care units and those that do not and provide grants to establish provider networks in rural areas.<sup>9</sup>
- Improve rural obstetric readiness by developing standards for obstetrics and maternal health training for practitioners in hospitals without obstetric care units, providing online obstetrics training to HRSA-funded health centers, and providing free clinics to deliver preconception, prenatal, intrapartum, and postpartum care.<sup>10</sup>
- Support and encourage use of doula care, including providing coverage of doula services under Medicaid and providing funding for hiring and training of doulas in areas with high rates of adverse maternal outcomes.<sup>11</sup>
- Implement Pregnancy Medical Home demonstration sites, as proposed by the Maternal Health Blueprint. These sites will “emphasize quality and care coordination through a team-based approach to care with the goal of reducing adverse maternal health outcomes and maternal death.”<sup>12</sup>



- Support and expand the use of telehealth and other technologies and develop best practices in the use of technology to improve maternal health outcomes.<sup>13</sup>

In addition to these ideas, other options include providing partial repayment of student loans or scholarships for medical students studying maternal health in exchange for a two-year commitment to work in a maternity care health professional target area (MCTA).<sup>14</sup>

As described above, there is lack of racial and ethnic diversity in the maternal workforce, compared to the female population of childbearing age. Some patients feel more comfortable with a provider of the same race and/or ethnic origin.<sup>15,16</sup> Furthermore, subconscious prejudices and implicit bias can lead to adverse maternal outcomes. In fact, the maternal mortality rate for Black women is more than three times higher than for White women, while the rate for American Indian/Alaska Native women is more than twice that of White women.<sup>17</sup> In addition to racial/ethnic diversity, gender representation as well as cultural and linguistic representation play an important role in patient satisfaction, provider-patient communication, and improved access to care for minority patients.<sup>18</sup> A number of recent proposals have provided recommendations to help address this issue and to reduce systematic bias in the delivery of maternal care:

- Provide funding to develop training and/or scholarship programs designed to expand and diversify the maternal workforce, such as providing scholarships to students from disadvantaged communities to train in maternal health.<sup>19</sup>
- Train maternal care providers on implicit bias, as well as culturally and linguistically appropriate care. This could include supporting providers in identifying and avoiding bias and engaging with the National Academy of Medicine to make recommendations on the inclusion of implicit bias training at accredited medical schools.<sup>20</sup>
- Develop community needs assessments, develop and expand digital tools to enhance maternal care, and train students and providers to identify the social determinants of health that drive differences in maternal outcomes.<sup>21</sup>

Other potential ways to increase the maternal health workforce and improve other aspects of maternal care include providing funding and support for programs that develop and implement training on maternal mental health, maternal substance use disorder, and the social determinants of health.<sup>22</sup> Furthermore, additional training for nurse practitioners, certified nurse midwives, physician assistants, and other providers in the recognition and treatment of conditions such as diabetes, endometriosis, fibroids, and preeclampsia that increase risks of pregnancy complications could help improve maternal outcomes.

For more on HRSA's approach to maternal health, see [Maternal Health at HRSA](#).

## Notes

- <sup>1</sup> Tikkanen, R., Gunja, M., FitzGerald, M., and Zephyrin, L. "[Maternal Mortality and Maternity Care in the United States Compared to 10 Other Developed Countries.](#)" The Commonwealth Fund, November 18, 2020.
- <sup>2</sup> Declercq, E., & Zephyrin, L. "[Severe Maternal Morbidity in the United States: A Primer.](#)" The Commonwealth Fund, October 28, 2021.
- <sup>3</sup> The White House, "[Fact Sheet: Vice President Kamala Harris Announces Call to Action to Reduce Maternal Mortality and Morbidity.](#)" December 7, 2021, The White House, "[Fact Sheet: Biden-Harris Administration Announces Additional Actions in Response to Vice President Harris's Call to Action on Maternal Health.](#)" April 13, 2022, and The White House, "[White House Blueprint for Addressing the Maternal Health Crisis.](#)" June 2022.
- <sup>4</sup> The White House, "[White House Blueprint for Addressing the Maternal Health Crisis.](#)" June 2022, goal 1 on page 9.
- <sup>5</sup> HRSA calculations of data from the 2020 American Medical Association (AMA) Masterfile and the U.S. Census Bureau's [2020 Census County Population Estimates](#) (Annual County Resident Population Estimates by Selected Age Groups and Sex: April 1, 2010 to July 1, 2019; April 1, 2020; and July 1, 2020).
- <sup>6</sup> Data from U.S. Department of Health and Human Services, Health Resources and Services Administration, [HRSA Workforce Projections Dashboard.](#)
- <sup>7</sup> U.S. Department of Health and Human Services, Health Resources and Services Administration, National Center for Health Workforce Analysis, "[Projections of Supply and Demand for Women's Health Service Providers: 2018-2030.](#)" see discussion on pgs. 14-15.
- <sup>8</sup> See, for example, H.R. 4995 ([Maternal Health Quality Improvement Act of 2020](#)) and H.R. 6164 ([Perinatal Workforce Act of 2020](#)).
- <sup>9</sup> See, for example, HRSA's [Rural Maternity and Obstetrics Management Strategies \(RMOMS\) Program.](#)
- <sup>10</sup> See, for example, The White House, "[White House Blueprint for Addressing the Maternal Health Crisis.](#)" June 2022, goal 1.3 on page 9.
- <sup>11</sup> See, for example, U.S. Department of Health and Human Services, HHS Notice, "[Health Resources and Services Administration Announces Availability of New Funding to Support Community-Based Doula's.](#)" Also see The White House, "[Fact Sheet: Biden-Harris Administration Announces Additional Actions in Response to Vice President Harris's Call to Action on Maternal Health.](#)" April 13, 2022.
- <sup>12</sup> See, for example, The White House, "[White House Blueprint for Addressing the Maternal Health Crisis.](#)" June 2022, goal 2.10 on page 33.
- <sup>13</sup> See, for example, U.S. Department of Health and Human Services, [Introduction to Telehealth for Maternal Health Services.](#)
- <sup>14</sup> For a definition of and the criteria used to define MCTAs, see Federal Register, "[Criteria for Determining Maternity Care Health Professional Target Areas.](#)" FR-2021-09-27, pgs. 53324-53329.
- <sup>15</sup> McLemore, M., Altman, M., Cooper, N., Williams, S., Rand, L., and Franck, L., "[Health Care Experiences of Pregnant, Birthing and Postnatal Women of Color at Risk for Preterm Birth.](#)" *Social Science & Medicine* 201 (2018): 127–35; Altman, M., Oseguera, T., McLemore, M., Kantowitz-Gordon, I., Franck, L., and Lyndon, A., "[Information and Power: Women of Color's Experiences Interacting with Health Care Providers in Pregnancy and Birth.](#)" *Social Science & Medicine* 238 (2019): 112491; and Vedam, S. et al., "[The Giving Voice to Mothers Study: Inequity and Mistreatment During Pregnancy and Childbirth in the United States.](#)" *Reproductive Health* 16, no. 1 (2019): 77.
- <sup>16</sup> America's Essential Hospitals, "[The Role of Essential Hospitals in Combating Structural Racism.](#)" Oct. 6, 2020; Livingston, S., "[Racism Still a Problem in Healthcare's C-Suite.](#)" *Modern Healthcare*, Feb. 24, 2018; and Greenwood, B., Hardeman, R., Huang, L., and Sojourner, A., "[Physician-Patient Racial Concordance and Disparities in Birthing Mortality for Newborns.](#)" *Proceedings of the National Academy of Sciences of the United States of America* 117, no. 35 (2020): 21194–200.
- <sup>17</sup> Centers for Disease Control, "[Racial/Ethnic Disparities in Pregnancy-Related Deaths — United States, 2007–2016.](#)" *Morbidity and Mortality Weekly Report*, September 6, 2019.
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- <sup>21</sup> See, for example, The White House, "[White House Blueprint for Addressing the Maternal Health Crisis.](#)" June 2022, goal 5.2 on page 53.
- <sup>22</sup> *Ibid.*