

SUPPLEMENTAL INFORMATION: MATERNAL AND CHILD HEALTH

Recommended Evidence-based and/or Promising Strategies

Infant mortality is a complex problem requiring a multi-faceted approach to prevention. Experts generally recommend a comprehensive set of strategies that involve high quality health care (preconception, prenatal and interconception care) for *all* women, targeted interventions for high risk groups, and policy approaches that address social determinants of health.

Addressing social, economic, and environmental conditions that create disadvantages are fundamental to reducing infant mortality, especially among African American mothers and babies and other population groups and communities that experience health inequities. Experts recognize that infant health is primarily influenced by social and economic conditions, and states can support evidence-based policies and community-based programs to address social determinants of health and improve equity in birth outcomes. The National Institute for Children's Health Quality specifically recommends supporting policies and programs that:

- reduce social stratification (e.g., raising the minimum wage, criminal justice reform)
- reduce exposures of disadvantaged people to health damaging factors (e.g., address housing instability)
- reduce vulnerability and increase resilience of disadvantaged people (e.g., medical-legal partnerships)
- reduce unequal consequences of illness in social, economic, and health terms (e.g., Medicaid expansions, home visiting programs, domestic violence prevention); and
- cross-cutting strategies (e.g., Health in All Policies, data collection and surveillance).

States can also reduce unintended pregnancy and promote healthy birth outcomes by assuring access to high quality preconception care, prenatal care, and interconception care for all women of childbearing age (15-44). Specific recommendations include, but are not limited to:

- assuring access to primary care that is comprehensive, preventive, culturally and linguistically appropriate, compassionate, coordinated and family centered;
- in every encounter during a patient's reproductive years, discussing birth and pregnancy intention, spacing, and guidance on the most effective birth control;
- screening women for chronic conditions that are the result of or may influence pregnancy; and

- enhancing provider competency around moderate and most effective contraception.

Further, interventions with strong evidence for improving birth outcomes include smoking cessation programs for pregnant women, which help to reduce the risk of preterm birth, low birthweight, and sudden infant death syndrome (SIDs), as well as safe sleep interventions that help to prevent SIDs.

Finally, experts recommend identifying and intervening with targeted strategies to better support women at higher risk of poor birth outcomes due to race and/or ethnicity and/or social and economic status. Such strategies include enhanced prenatal care interventions for women enrolled in Medicaid and targeted interventions for women experiencing substance use disorder.^{Error! Bookmark not defined.} Because teen pregnancy is associated with adverse birth outcomes, experts often recommend targeting young mothers and teen pregnancy prevention in order to improve maternal and infant health. The U.S. Department of Health and Social Services, Office of Adolescent Health, Teen Pregnancy Prevention (TPP) program maintains a comprehensive website of evidence-based TPP approaches (<https://www.hhs.gov/ash/oah/grant-programs/teen-pregnancy-prevention-program-tpp/index.html>).

The Delaware State Health Improvement Plan (SHIP) recommends prioritizing improvements in teen pregnancy, premature births, and low birth weight infants with a particular focus on teens and adolescents in Wilmington, Dover, and Sussex County. Priorities include additional education on maternal and child health topics, reducing the cost of care, and increasing access to preventative services.

SHIP Recommendations to Address Maternal and Child Health

1. Embed education for pre- and inter-conception care in schools

Evidence-based and Promising Strategies

- Ensuring access to high quality preconception care, prenatal care, and interconception care for all women of childbearing age
- Targeted strategies to better support women at higher risk of poor birth outcomes due to race/ethnicity and/or social and economic status
- Policies to reduce social stratification (e.g., raising the minimum wage, criminal justice reform)
- Policies and programs to reduce exposures of disadvantaged people to health damaging factors (e.g., address housing instability)

Evidence-based and Promising Strategies (cont.)

- Policies and programs to reduce vulnerability and increase resilience of disadvantaged people (e.g., medical-legal partnerships)
- Policies and programs to reduce unequal consequences of illness in social, economic, and health terms (e.g., Medicaid expansions, home visiting programs, domestic violence prevention)
- Cross-cutting strategies (e.g., Health in All Policies, data collection and surveillance)

Stakeholder Input

Feedback from SHIP stakeholders who participated in the roundtable discussion related to maternal and child health at the SHIP Annual Meeting on October 23, 2019 was generally consistent with expert recommendations, especially with respect to prioritizing social determinants of health and reducing racial health inequities (i.e. among African American mothers). Included in the roundtable discussions was a focus on addressing structural racism and improving cultural awareness and competency among Delaware health care providers. Some meeting attendees specifically recommended implicit bias training for providers and greater attention to trauma-informed care.

Other improvements in clinical practice suggested by meeting attendees included better coordination of care, more comprehensive (i.e. well woman care), more attention to reproductive life planning, and better access to contraceptives – all of which are consistent with expert recommendations regarding preconception and interconception care. Some attendees acknowledged the importance of engaging with non-traditional partners, as well as the need for expanding education regarding contraception for men.

Attendees shared specific suggestions for school-based interventions, including better access to evidence-based, school-based services; additional education around substance use, sex and pregnancy in schools. Roundtable participants recommended stronger partnerships with school districts to achieve these SHIP-related goals.

Finally, the roundtable discussion on maternal and child health included a general theme around identifying and implementing evidence-based policies and practices, including those that target women at the highest risk of poor birth outcomes, as well as those that address topics such as intimate partner violence, breastfeeding, and sex education.

SHIP 2019-2020 Activities to Address Maternal and Child Health

SHIP stakeholders concerned about maternal and child health were engaged in a variety of efforts that aligned with the above recommendations during the past year. Information from the high impact stakeholder group (i.e. the Delaware Healthy Mother and Infant Consortium (DHMIC)) and other relevant stakeholders was derived from meetings, websites, and other resources and highlights of these activities are presented below. Given the nature of our data collection, this list should not be considered exhaustive. We welcome feedback to ensure a more complete picture of SHIP-related activities.

SR = SHIP Recommendation

EBP = Evidence-based strategies and/or promising practices

Ensuring Access to Preconception, Prenatal and Interconception care – **SR **EBP****

Comprehensive preconception, prenatal, and interconception care to women, regardless of insurance status, through bundled services including enhanced services not fully covered by Medicaid or private insurance (e.g., oral health education and psychosocial risk assessment) and with prioritized service delivery in geographic areas found to have high rates of infant mortality. - Delaware's Healthy Women, Healthy Babies (HWHB) program, a collaboration between health care provider practices and the Division of Public Health (DPH), improves access to high quality preconception, prenatal and interconception care for women of reproductive age in Delaware. Increased efforts this year, described as HWHB 2.0, were focused on addressing the social determinants of health, as described in the "Targeted strategies to better support women at higher risk of poor birth outcomes due to race/ethnicity and/or social and economic status" stakeholder's activity report further below. In September 2019, seven provider groups were awarded competitive contracts through June 2020, with opportunities for contract renewal for four additional one-year period(s) through negotiation between the contractor and DPH. The 2.0 program also made a significant shift to a performance-based model. The first year of the program is a learning collaborative approach as implementation occurs and benchmark metrics are refined. HWHB facilitates extra services for women who are pregnant, planning to be pregnant, or who just want to live healthier lives. These include personal health and wellness, nutrition, family planning, mental health, and prenatal care if a program participant gets

pregnant. The HWHB 2.0 program works with medical providers as well as community health workers throughout the state to reach women and babies at high risk for poor birth outcomes, with an emphasis on African American, Medicaid eligible women as a segment of Delaware's population among the highest risk.

Preventing Mortality – DHMIC's Maternal and Mortality Workgroup is focusing on preconception and prenatal care, including managing chronic conditions such as hypertension disorder, and helping at-risk women get identified early and receive treatment. The group is also examining disparities for hypertensive African American women who are not getting treatment early enough.

Neonatal and Maternity Care – According to the U.S. Centers for Disease Control and Prevention (CDC), Perinatal quality collaboratives (PQCs) are state or multistate networks of teams working to improve the quality of care for mothers and babies. PQC members identify health care processes that need to be improved and use the best available methods to make changes as quickly as possible. The Delaware Perinatal Quality Collaborative (DPQC), which started several years ago under the umbrella of the DHMIC, was formally established in July 2020 by Governor John Carney's signing of [SB 201](#). The DPQC works to improve pregnancy outcomes for women and newborns and such issues as obstetrical blood loss management, pregnant women with substance use disorder, infants impacted by neonatal abstinence syndrome, and advancing evidence-based clinical practices and processes through quality care review, audit, and continuous quality improvement. Among other activities, DPQC has been working to assess the risk for obstetrical hemorrhage and to provide appropriate and standardized treatment throughout the state with all six of the birthing hospitals and the Birthing Center joining in this cooperative effort.

In terms of substance-exposed infants, a gap analysis was recently completed, which revealed that most hospitals provide extensive non-pharmacological treatment. Hospitals self-report an average length of stay for births to be between five and seven days, but the median average based upon birth certificate data was 17 days. A standardization of care is being developed to address and create a standardized process for babies with Neonatal Abstinence Syndrome and reduce length of stay.

The Center for Drug & Health Studies at the University of Delaware is conducting a study pertaining to the integration of behavioral health and primary care, focused on prenatal care in the first trimester. They are working with DPQC so that at-risk mothers can be identified early and receive intervention.

Well Women Care – According to DPH, “The groundswell nationally is transitioning away from the more traditional approach of the past to a newer comprehensive approach under a reshaped and well-defined umbrella known as well woman care. It is with this approach in mind that Delaware has embarked upon launching *Every Woman Every Time Delaware*.” This approach to well woman care seeks to help engage women at every health encounter (i.e. primary care, all medical specialties) about preconception care and reproductive health. DHMIC is in the process of creating a series of well woman care toolkits which will contain information for a variety of target audiences, consumers, providers, and community agencies. DHMIC plans to convene with national thought leaders and experts to develop this initiative by leveraging technical assistance opportunities offered through participation with the national Collaborative Improvement and Innovation Network. The initiative has also facilitated discussions on gaps in care and where improvement is needed. A needs assessment from Well-women Chat-n-Chews was conducted, which identified barriers as well as lack of knowledge of available resources.

Maternal Health Awareness – [House Concurrent Resolution 67](#) passed this year proclaiming January 23, 2020, as “Maternal Health Awareness Day” in the State of Delaware. The Delaware section of the American College of Obstetricians and Gynecologists (ACOG) hosted a Maternal Health Awareness event at the Medical Society of Delaware in partnership with the Association of Women’s Health, Obstetric and Neonatal Nurses and the Alliance for the Innovation of Maternal Health (AIM). The event served as a Delaware kick off for AIM, an ACOG program supported by a cooperative agreement from the U.S. Department of Health and Human Services’ Health Resources and Services Administration, Maternal and Child Health Bureau. [AIM](#) is a national data-driven maternal safety and quality improvement initiative based on interdisciplinary consensus-based practices to improving maternal safety and outcomes. The program provides implementation and data support for the adoption of evidence-based patient safety bundles. AIM works through state teams and health systems to align national, state, and hospital level engagement efforts to improve overall maternal health outcomes.

Targeted strategies to better support women at higher risk of poor birth outcomes due to race/ethnicity and/or social and economic status – EBP

According to Delaware Thrives, “A growing body of literature indicates structural racism is a major contributing factor to [maternal and child health] disparities which until recently have been largely

unexplored or even mentioned.” The DHMIC aims to bring increased awareness of the disparity gap for African American women and their infants by developing community-informed solutions for closing the disparity gap. DHMIC plans to educate providers on implicit bias and its subsequent impact on care rendered and health disparities. An [infographic-style flyer](#) was created to raise awareness about rising pregnancy-related deaths in Delaware and the U.S. and identifying community partners in Delaware who have an interest in partnering to address African American maternal and infant health disparities.

In September 2019, Black Mothers in Power was “birthed.” Black Mothers in Power is a black women-centered and grassroots Delaware initiative led by a group of dedicated black mothers, aspiring black mothers, and change agents. The group’s mission is to drive the statewide campaign to build awareness, create community programming, and create regulations and policies to improve black maternal care in Delaware. Black Mothers in Power is one of several issue campaigns supported by Network Delaware. At their start, Black Mothers in Power hosted “Shop Chats” at local styling studios for black women/women and held listening sessions for each of their three pillars: Awareness, Community Programming, and Regulation/Policies. Among other activities, they hosted “Ally Training: How to show up for Black People when you're not Black,” a “Birthing While Black” virtual series, a 2020 Mother’s Day Giveaway for Black Mamas, and diaper drives; and conducted a pregnancy survey to inform a community-based doula and breastfeeding program. The group also promoted Black Maternal Health Awareness Week 2020; provided COVID-19 relief funds for women in Wilmington; and hosted the summer 2020 series, “You Gon’ Learn Today: A Complete Series to Birthing While Black” in partnership with [Network Delaware](#) and [Building People Power](#). In response to the deaths of Breonna Taylor in Louisville, Kentucky and George Floyd in Minneapolis, Minnesota, they co-hosted peaceful protests, ; hosted a trauma processing and healing space for Black women in light of recent events and ongoing racial trauma; marched with Jeremy McDole’s family to demand justice; and participated in the [Mass Poor People’s Assembly and Moral March on Washington: A Digital Justice Gathering](#). Black Mothers in Power is asking all hospitals and the state to mandate implicit bias training immediately.

In 2019, the Delaware Chapter of the National Coalition of 100 Black Women launched a research partnership with Delaware-CTR ACCEL, Division of Public Health, Delaware State University, and the Partnership for Healthy Communities at University of Delaware. This is a first-of-its-kind multi-method research study to look exclusively at African American girls in Delaware and their lives. Preliminary results are due to be shared with the public in early 2021.

Policies to reduce social stratification (e.g., raising the minimum wage, criminal justice reform) - EBP

Minimum wage increase – Per SB 170 signed in 2018, Delaware's minimum wage rate increased to \$9.25 effective October 1, 2019, with another annual increase of \$9.75 per hour scheduled to take effect on October 1, 2020. However, there is a training wage rate of (\$8.75 for 2019 increase and \$9.25 for 2020 increase for adult workers 18 and over) for the first 90 days on a new job.

Criminal Justice Reform – As reported in the 2019 SHIP Annual Report, there was a surge of criminal justice reform bills signed after the first half of the 150th General Assembly in 2019. In 2020, Delaware began to see movement toward local-level police and racial justice reform, such as the Wilmington Mayor's Office introduction of a budget amendment to help fund a police body-worn camera program on July 9, 2020. The \$400,000 budget amendment, later approved in October 2020, will provide local matching funds for a federal grant the City of Wilmington pursued to cover the remaining \$542,000 balance of its body camera program for Fiscal Year 2021.

Policies and programs to reduce exposures of disadvantaged people to health damaging factors (e.g., address housing instability, place-based initiatives) - EBP

Place-based Initiatives through Healthy Women, Healthy Babies Zones – In 2019, DPH and the DHMIC issued awards totaling \$327,925 to community-based organizations in "healthy women, healthy babies' zones" where residents are at high risk for poor birth outcomes. Grant recipients are providing targeted services within the zones to women of childbearing age (15-44 years), children, and their families. According to the Delaware Department of Health and Social Services (DHSS), "the state's first mini-grants to reduce infant and maternal mortality aim to narrow the wide variance in birth outcomes between African American women and white women by building state and local capacity and testing small-scale innovative strategies. Awardees are supporting community-led place-based initiatives to shift the impact of social determinants of health that are tied to the root causes of infant mortality: poverty, racism, health access, food insecurity, housing, and having a good job and a good education, all of which affect mothers and children." Additionally, mini-grants were also awarded to community-based organizations providing services to victims of domestic violence.

Policies and programs to reduce vulnerability and increase resilience of disadvantaged people (e.g., medical-legal partnerships) - [EBP](#)

Medical Legal Partnerships – The [Medical-Legal Partnership Project \(MLP\)](#) is a partnership between Community Legal Aid Society, Inc. and DPH. The MLP provides free legal services to pregnant patients of participating HWHB 2.0 providers statewide and Nurse Family Partnership providers in New Castle County.

Policies and programs to reduce unequal consequences of illness in social, economic, and health terms (i.e. Medicaid expansion, home visiting programs, domestic violence prevention) - [EBP](#)

Medicaid Expansion – [Senate Concurrent Resolution 66](#), passed in January 2020, requested that the DHSS Division of Medicaid and Medical Assistance study the extension of Medicaid coverage through the first year postpartum. Insurance coverage is a critical factor in determining women's access to affordable postpartum care and is a key strategy for reducing preventable maternal mortality and to close the disparity in the among African American women and women of other races. Currently, Delaware provides expanded Medicaid coverage to people living at up to 212% of the federal poverty level during pregnancy. Federal law requires that coverage for this population extend 60 days after the end of the month in which a pregnancy ended, after which the coverage expires. However, a [CDC Maternal Mortality Review](#) of pregnancy-related deaths using 2008-2017 data from 14 states, including Delaware, found that nearly a quarter of maternal deaths occurred in the later postpartum period (43-365 days).

Home Visiting Programs – In FY19, the Division of Public Health's (DPH) Maternal, Infant, and Early Childhood Home Visiting Program reported conducting 6,882 home visits to 592 households. Delaware utilizes four evidence-based home visiting models operated by five different agencies in total. More on these efforts is described in the Mental Health section of this report.

Domestic Violence Prevention – Since 2002, Delaware has received critical funding from the CDC's Division of Violence Prevention to support primary prevention efforts. Through the Domestic Violence Prevention Enhancements and Leadership Through Alliances, Focusing on Outcomes for Communities United with States program, the Delaware Coalition Against Domestic Violence (DCADV) and community partners have been engaged in comprehensive implementation and

evaluation of both statewide and locally-based prevention strategies that seek to promote healthy, safe, nonviolent relationships across the social ecology.

DCADV also leads the Domestic Violence Community Health Worker (DV-CHW) Project. DV-CHWs receive special training and support around the complex safety and health needs of victims and their children that is unique to domestic violence empowerment-based advocacy. The DV-CHW is a trauma-informed advocate that the domestic violence victim can talk to about the abuse and strategies for safety, and is a link to supportive services and importantly, necessary health care resources. In February 2020, the DV-CHW Project celebrated one year of delivering services to victims and survivors of domestic violence. Service delivery, data collection, referral pathways, and evaluation efforts were strengthened and/or expanded throughout this first year. The DV-CHW Project has also trained health care providers since November 2018. DCADV developed a one-hour training targeted at nurses and doctors that provides 1 continuing education contact hour (CME or CNE). DCADV secured approval through the Medical Society of Delaware and the Delaware Nurses Association to provide these contact hours in October 2019. The first two trainings were offered in November 2019, with eight additional trainings scheduled between January and June 2020.

➤ **Cross-cutting strategies (e.g., Health in All Policies, data collection and surveillance) -**

Data Profiles – DPH released an [Infant Mortality Delaware Profile 2010-2017](#) that is accessible on the DEThrives.com website. The brief shows that, although Delaware's 2017 infant mortality rate (IMR) was slightly higher than the U.S. rate, there was approximately a 27% decline in Delaware's IMR during this seven-year period, ranging from a high of 9.0 deaths per 1,000 live births in 2015 to a low of 6.6 deaths in 2017. Delaware's fetal mortality rate in 2017 was well below the U.S. rate and met the Healthy People 2020 goal. Delaware's overall neonatal mortality rates (4.3 deaths per 1,000 live births in 2017) and postneonatal mortality rates (2.2 deaths per 1,000 live births in 2017) were higher than the U.S. (3.9 and 1.9, respectively, in 2017). Despite higher neonatal and postneonatal mortality rates, Delaware saw a 15% and 18% decline in 2010-2017. Additional findings in the brief include the following:

- Race Matters – Non-Hispanic African Americans who shared the same attribute as non-Hispanic whites on average were 50% more likely to deliver a preterm birth. Similarly, Hispanics as compared to non-Hispanic whites were 40% more likely to deliver a preterm birth, compared to other races and ethnicities.

- Place Matters – Neighborhoods with higher concentrated disadvantage were 20% more likely to have higher rates of preterm birth.

Maternal and Child Health Needs Assessment – As part of the Title V Maternal and Child Health Block Grant that DPH receives, every five years a comprehensive assessment is conducted that encompasses the needs, desired outcomes, and system capacity for the maternal and child health population, including children and youth with special health care needs. The results of this assessment are used to establish the priorities that will guide Delaware’s Title V program for the next five years (2020-2025). Delaware’s needs assessment process collects information from stakeholders in a variety of ways, including community focus groups, a survey of stakeholders, and key informant interviews with partners. Findings published to date include:

- [Focus Group Study](#) – Twelve focus groups across the state were conducted from July through September 2019. The focus group analysis reported that, “Based on analysis of focus group data and the literature, what is evident is: 1) delivery of care has become increasingly demanding (IOM, 2013); and 2) delivery of care “has become increasingly fragmented, leading to coordination and communication challenges for patients and clinicians.” The report states: “many of the focus group findings point to opportunities for provider improvements learned from IOM’s work on the learning health system that “traditional systems for transmitting new knowledge — the ways clinicians are educated, deployed, rewarded, and updated — can no longer keep pace with scientific advances.” In its promotion of a learning health system, the Institute of Medicine goes on to note that given “real-world impediments” initiatives need to go beyond incremental improvements to address (and change) the environment, context, and systems in which professionals practice which in turn should support genuine patient engagement.” The overall recommendations include a focus on 1) Accessibility, Access and Value; and 2) Client/Patient-Centered Care (Whole Person Care).
- [Stakeholder Survey](#) – Most respondents agreed that there was awareness of national performance measures (NPMs) for maternal and child health and a desire to address them in the state. However, there was less consensus on Delaware progress being made. Two NPMs, breastfeeding and safe sleep, were deemed the most successful. There was a strong consensus that adequate insurance coverage, developmental screening, well-woman visits, and risk-appropriate perinatal care should be priorities. Respondents also indicated that NPMs should not be considered just individually, but rather with a broader context of the social determinants of health.

Congressional Briefing – In November 2019, DPH Director Dr. Karyl Rattay participated in a Congressional briefing for members of the U.S. Senate and U.S. House of Representatives on Capitol Hill regarding maternal and infant health as part of a panel discussion hosted by March of Dimes. The briefing, "Making the Grade on Maternal and Child Health: 2019 March of Dimes Report Card," addressed efforts across the country to prevent preterm birth and improve infant and maternal health.¹ According to the 2019 March of Dimes Report Card, Delaware received a grade of "C+" based in part on its 2018 preterm birth rate of 9.6% of live births, which is lower than the national rate of 10.02%, and a decrease from the state's rate of 10.2% the year before. March of Dimes' preterm birth rate goal is 8.1% by 2020. Dr. Rattay's presentation focused on the state's efforts to address birth equity through addressing social determinants of health, the Delaware Contraceptive Access Now initiative, the importance of collaboration and partnerships, and the importance of sustained federal funding.

¹ 2019 March of Dimes Report Card. Accessed October 19, 2020 via <https://www.marchofdimes.org/mission/reportcard.aspx>