

## **Delaware Birth Spacing Campaign:**

### **An Effort to Improve Maternal and Child Health Outcomes**

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### **Introduction**

Infant mortality rate (IMR) is defined as the number of infant deaths under one year of age per 1,000 live births.<sup>1</sup> In the 1990s, Delaware's IMR was increasing even though nationally the IMR was decreasing. Between 2000 and 2004, Delaware's infant mortality rate was 9.3 infant deaths per 1,000 live births, compared to the U.S. rate of 6.9 deaths per 1,000 live births.<sup>2</sup> This troubling trend provoked then Governor Ruth Ann Minner to assemble an Infant Mortality Task Force in June of 2004.<sup>3</sup> The Task Force compiled a final report proposing a three-year plan with 20 recommendations to reduce the IMR in Delaware. The plan called for the formation of the Delaware Healthy Mother & Infant Consortium (DHMIC) to enforce the Task Force recommendations.<sup>1</sup>

In spite of the very significant progress we have made, too many babies in Delaware do not live to see their first birthday. At 7.7 infant deaths per 1,000 live births in 2011-2015, Delaware's infant mortality rate is still significantly higher than the national average of 5.9.<sup>4</sup> The Delaware rate masks a significant racial disparity: in 2011-2015, the black infant mortality rate of 12.3 infant deaths per 1,000 live births is more than twice as high as the white rate of 5.3 infant deaths.<sup>4</sup> We can do better and are committed to do so.

DHMIC's mission is to "provide statewide leadership and coordination of efforts to prevent infant mortality and to improve the health of women of childbearing age and infants throughout Delaware."<sup>5</sup> The consortium consists of two members each of the Delaware House of Representatives and State Senate; one representative of the Governor's office; the Secretary of the Department of Services for Children, Youth, and Their Families or a designee; the Secretary of the Department of Health and Social Services or a designee; and 15 Governor-appointed members representing the medical, social service, professional, and consumer communities.<sup>5</sup>

The goal of the DHMIC is to reduce the infant mortality rate through several statewide initiatives in partnership with the Division of Public Health (DPH) and the Delaware Perinatal Cooperative. The Delaware Perinatal Cooperative was established in February 2011 as an action arm of the DHMIC. It enhances community-based collaboration, promotes evidence-based best practice and standardized care among providers, and improves perinatal outcomes in Delaware. Members of the Cooperative, representing birth hospitals, collect and report on data points chosen by the Cooperative's clinical priorities. A Perinatal Education Coordinator (established through partnership with the March of Dimes' Delaware Chapter and DPH) and a Medical Director both provide oversight, education, and technical assistance on quality improvement initiatives for the Cooperative.<sup>5</sup>

DPH and the Cooperative collect and analyze data to support quality improvement projects at the hospital/facility level. As a part of continuous quality improvement (CQI), the data is shared with members of the Cooperative, who review it in collaboration with the DHMIC and implement CQI intervention initiatives to increase adherence to best practices.<sup>5</sup>

## **Birth Spacing**

Birth spacing is the interpregnancy interval between the delivery date of the baby and the conception date of the subsequent pregnancy. The Delaware Perinatal Cooperative and the DHMIC made optimal birth spacing a priority CQI focus area for 2017-2018. Recommendations by the American College of Obstetricians and Gynecologists,<sup>6</sup> the Centers for Disease Control and Prevention (CDC), the World Health Organization (WHO), and the Fetal and Infant Mortality Review (FIMR) Process support that the optimal interpregnancy interval (IPI) is greater than 18 months and less than five years. National data shows that for every month IPI is less than 18 months, preterm birth increases 1.9%, low birth weight increases 3.3%, and small-for-gestational-age increases 1.5%.<sup>7</sup> All three of these outcomes increase the risk of infant mortality.<sup>8</sup>

Furthermore, Healthy People 2020 calls for a 10% reduction in pregnancies that occur within 18 months of a previous birth. A woman's body needs at least 18 months to heal and recover from the physical and emotional stress of pregnancy, but about one third of all pregnancies in the United States occur within 18 months of a previous birth.<sup>9</sup> This is frequently the result of unintended pregnancy. Therefore, DHMIC, DPH, and the Perinatal Cooperative determined that an appropriate strategy to improve health outcomes for Delaware women and babies is to help women plan and space their pregnancies.

## **The Campaign**

Through the statewide efforts of these three groups, a birth spacing campaign was developed and implemented near the end of 2017 to educate, encourage, and empower women of child bearing age to wait at least 18 months between giving birth and getting pregnant again. Women are educated about the benefits of practicing optimal IPI for mom, baby, and family (see Figure 1). These benefits include more time for parent/child bonding, more interacting and play time, and more time for parents to have with each other, as well as more time for mom to heal, restore essential nutrients such as folic acid, and regain energy. Additional benefits are the increased chance of the next baby being born at the right time and at a healthy weight, and allows for more time to breastfeed. Many of the predictors of school readiness relate to conditions prior to, and following, the birth of the child, and with optimal birth spacing, children are better prepared to begin kindergarten and perform better in school.

It is recommended that OB/GYNs provide women with birth spacing materials at four different intervention points (i.e. first prenatal visit, third trimester appointment, hospital discharge, and the post-partum visit) and it is suggested that providers document what was discussed and what materials were provided. To support optimal birth spacing, it is recommended that during the first prenatal visit, women are given a reproductive life plan. In Delaware, over 50% of pregnancies are unplanned.<sup>10</sup> The reproductive life plan is intended to help women determine pregnancy intention by asking, "Do you want to become pregnant again in the next year?" If the answer is no, it is a good opportunity to discuss contraception options. It is also recommended that women are given a brochure/poster on optimal birth spacing during the third trimester of

pregnancy (see Figure 1), a worksheet on the benefits of birth spacing at hospital discharge, and a checklist on the benefits of birth spacing at the postpartum visit (see Figure 2).

Figure 1. Birth Spacing Campaign Informational Posters

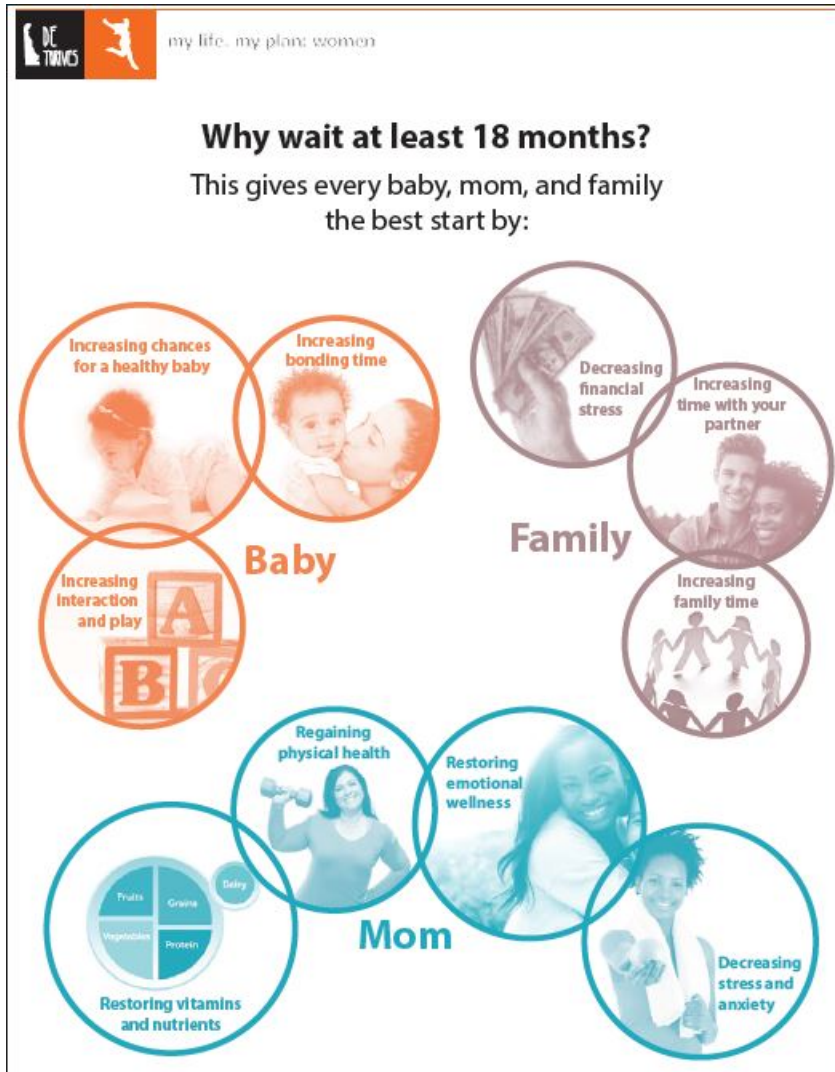


Figure 2. Birth Spacing Benefits Checklist





**Birth Spacing**



Division of Public Health  
Center for Family Health Research and Epidemiology

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### BENEFITS FOR MOM



Having a baby can be a huge change physically and emotionally. Birth spacing can provide time for these benefits:

- Restore key vitamins and nutrients
- Return to healthy weight with exercise and healthy eating
- Heal, recover, and regain energy
- Adjust to stress and new demands of parenting

### BENEFITS FOR BABY



Birth spacing can help to give your baby the best start in life with these benefits:

- Increase the chances of baby being born at the right time and a healthy weight
- Increase bonding time
- More time to breastfeed if mom chooses
- Increase interactions and play time
- Children are better prepared to begin kindergarten and perform better in school

### BENEFITS FOR FAMILY



Having a baby can be a huge change within your family and home. Birth spacing may provide these added benefits:

- Parents and other family members will have a chance to bond with the new baby
- Older children will have time to adjust
- Parents will have time with each other
- Decrease financial stress
- Increase family time



----- **18 MONTHS** -----

is how long you should wait between giving birth and getting pregnant again!



Addressing a woman's known risks for morbidities and mortality must be a priority, regardless of whether or not they ever become pregnant again.<sup>11</sup> Therefore, as recommended by ACOG,<sup>6</sup> a large part of this campaign is an effort to reframe the postpartum visit into a well-woman visit and to ensure that women receive this visit in a timely manner, from two to six weeks postpartum. Providers should view this visit as the start of the next stage of the woman's health care needs and not as the end of her prenatal care. The challenge is to increase the number of women who attend a postpartum visit. The postpartum visit is a platform for birth spacing discussion as well as an opportunity to help women achieve their health goals. Providers may initiate discussions about Reproductive life planning, Emotional wellness, Alcohol/tobacco/substance use, Chronic conditions, and Healthy weight (REACH):


- While **reproductive life planning** took place at the first prenatal visit, the postpartum/well- woman visit is a chance to re-evaluate pregnancy intention, contraception, and other life goals.

- The **emotional wellness** discussion should include a postpartum depression screening and referral if needed. Stress level, demands of parenting, and the parents' social support system should also be discussed.
- **Alcohol, tobacco and substance use** can be a sensitive topic. The provider may start by asking open ended and non-judgmental questions. For example, "Is it okay if I ask you some questions about drugs and alcohol?" Popular, proven, and easy-to-use screening tools that address drugs and alcohol are the CAGE and CAGE-AID Questions.<sup>12</sup> It is important to educate women on the dangers of alcohol, tobacco, and substance use generally and specifically during pregnancy and postpartum (i.e. breastfeeding). Providers can access more information at [www.helpisherede.com](http://www.helpisherede.com) and <http://dethrives.com/order-materials/browse> for resources.
- Risk for **chronic conditions** may be assessed and discussed. Education on how to manage chronic health conditions to address short and long term health outcomes are important to assess the risks and their impact on future pregnancies. Likewise, women may be counseled on how future pregnancies will impact any chronic conditions. Medication adherence and management can also be part of the discussion as well as appropriate referrals if needed.
- The majority of postpartum women want to know strategies for losing weight.<sup>13</sup> Many providers are looking for ways on best practices for counseling and educating their patients on this topic. Providers can encourage women to set realistic goals, decrease caloric intake, and increase exercise. The focus should not be solely on body mass index (BMI). Leaving the door open for future discussions is important. It may take some longer than others to return to a **healthy weight**.

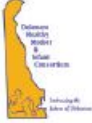
## Materials

DHMIC partnered with Worldways Social Marketing to create a Birth Spacing Implementation Toolkit for providers. The toolkit includes a provider letter, implementation letter, reproductive life plan, brochure/poster, worksheet, and checklist flyer (in English and Spanish). Signed by the DPH director, the DHMIC chair, and the Perinatal Cooperative's medical director, the provider letter explains the research behind the birth spacing initiative and implores the provider community to champion the statewide campaign (see Figure 3). The implementation letter explains how to use the remaining materials with patients to spread the birth spacing message.


Figure 3. Birth Spacing Campaign Provider Letter



**DELAWARE HEALTH  
AND SOCIAL SERVICES**  
Division of Public Health



Delaware  
Healthy  
Mother  
&  
Infant  
Consortium



Delaware  
**Perinatal** COOPERATIVE

Dear Provider:

About one-third of pregnancies in the United States occur within 18 months of a previous birth. Shortened inter-pregnancy intervals are frequently the result of unintended pregnancy. Helping women plan and space their pregnancies is an acknowledged strategy to support healthy outcomes for mothers and babies. Provision of information regarding the benefits of birth spacing must include the potential consequences of shortened inter-pregnancy interval as well as provide counseling on reproductive life planning and effective contraception. Addressing optimal birth spacing in reproductive life planning during preconception/inter-conception, prenatal, and postpartum periods offers an opportunity to provide education, support and resources to help patients and their families achieve the goal of optimal birth spacing.

The American College of Obstetricians and Gynecologists (ACOG) has suggested reframing the postpartum visit as preparation for the next stage in a woman's life. Doing so will better prepare our patients for their future health needs. The postpartum visit can serve as an opportunity to address optimal birth spacing as well as engage in a discussion regarding important health issues such as emotional wellness, chronic illness, healthy weight and substance misuse, whether or not a woman intends to become pregnant again.

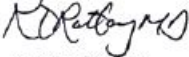
Optimal birth spacing is recommended by the World Health Organization, the Centers for Disease Control and ACOG. The Delaware Healthy Mother and Infant Consortium (DHMIC) and the Division of Public Health (DPH) ask that all providers champion our state-wide awareness campaign to:

1. Increase the number of women who receive education on waiting at least 18 months after delivering a baby to conceiving another pregnancy.
2. Increase the number of women who receive a timely postpartum visit (from 2 to 6 weeks).


Information concerning this campaign is included with this letter. If you are interested in having planned education for you and/or your staff on birth spacing, please contact Heather Baker, Perinatal Nurse Educator, at (302) 225-1020 or [Hbaker@marchoftimes.org](mailto:Hbaker@marchoftimes.org).

If you would like more information concerning the work of the DHMIC and DPH, please visit [DEThrives.com](http://DEThrives.com). We look forward to hearing from you.

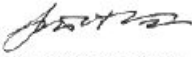
Sincerely,



Karyl T. Rattay, MD, MS  
Director



David A. Paul, MD, FAAP  
Chair, Delaware Healthy Mother  
Infant Consortium



Garret H.C. Colmorgen, MD  
Medical Director, Delaware Perinatal  
Cooperative

1 This has also been recommended annually since 2013 by the Delaware Fetal-Infant Mortality Review (FIMR) at <https://courts.delaware.gov/childdeath/reports.aspx>.

All toolkit items can be found by visiting <http://dethrives.com/order-materials/browse>. The reproductive life plan booklet and birth spacing worksheet are available for order and download under the website's "My Life, My Plan: Woman" section. The remaining items are available for order and download under the "Birth Spacing Materials" section.

The Perinatal Education Coordinator is supporting implementation by providing on-site education. The research, reasoning, and roll-out instructions are presented via PowerPoint presentation to select provider groups working with women of reproductive age. On-site education started with the Healthy Women Healthy Babies provider locations statewide. Obstetricians, birthing hospitals, home visitors, substance use partners, and various community groups were also identified for on-site education. Upon completion, a webinar of the presentation will be developed and available on [www.dethrives.com](http://www.dethrives.com) for provider training.

## Evaluation

DHMIC, DPH, and the Perinatal Cooperative are looking for opportunities for feedback and lessons learned from the provider community. To that end, there will be a process for data collection, and providers will be surveyed to determine campaign effectiveness. Given the

uniqueness of this campaign and the statewide efforts, it will take time to determine the efficacy of this approach.

Promoting optimal birth spacing is a key strategy of the DHMIC, DPH, and the Perinatal Cooperative for improving the health of women and babies. The birth spacing conversation between providers and women relies heavily on women attending a timely postpartum visit. As we aim to reduce rates of preterm birth and other adverse birth outcomes, it is important to creatively encourage women to understand the value of the postpartum/well woman visit and to focus on health before and in between pregnancies. DHMIC, DPH, and the Perinatal Cooperative promote the care of women across the lifespan and in this dialogue, challenge our partners to join this campaign to emphasize the importance of well woman care between pregnancies.

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