Project	Results and Impact
Infant Mortality Data Brief, 2010-2017	No new updates to as 2021 Birth and Death file continued to be delayed and has not been received as of June 14, 2023. Updates on IMR data brief that includes perinatal periods of risk has been delayed.
Healthy Women Healthy Babies Program Evaluation (HWHB)	First full year of HWHB 2.0 enrollment data is being currently linked to birth certificate, death certificate, hospital discharge dataset, PRAMS dataset to evaluate select maternal and infant outcomes. Linkage process has been extensively delayed due to availability of vital stats 2021 data from Delaware.
Neonatal Abstinence Syndrome (NAS)	Neonatal Abstinence Syndrome (NAS) or Neonatal Opioid Withdrawal Syndrome (NOWs) data brief was updated using linked birth and hospital discharge data that include maternal and infant dyads and available on DE Thrives website. This first comprehensive brief examines the prevalence of maternal opioid use disorder (MOUD) and NAS/NOWs. Some of the highlights are included below: • During 2010 to 2020 there were 2,323 NAS cases in Delaware excluding 23 iatrogenic cases with an overall rate of 20.9 (95%CI: 20.0-21.7) per 1,000 births. Alternatively, 1 in 50 newborns (~2.0%) in Delaware were diagnosed with NAS during 2010-2020. • The most recent published 2017 national and statewide estimate of NAS suggest that the U.S. NAS rate was 7.3 per 1,000 birth hospitalizations. Delaware's NAS rate was three times that of the U.S. rate. • NAS rates increased by 105% during 2010 to 2014 and decreased by 29% during 2016 to 2020. In 2020, the OUD rate of 22.2 (95%CI: 19.4-25.2) per 1,000 delivery hospitalizations was similar to the NAS rate of 19.6 (95%CI: 16.7-22.4). In addition, an assessment of estimated NAS rates was completed in May 2024. Key findings in this assessment include: • The statewide estimated NAS rate decreased from 12.9 per 1,000 live births in Q2 2021 to 6.3 per 1,000 live births in Q1 2024. • For NAS births, the median length of stay after delivery was 18 days as compared to two days among all live births.
Pregnancy Risk Assessment Monitoring System (PRAMS) - Report:	The Pregnancy Risk Assessment Monitoring System (PRAMS) 2012-2015 report was updated and completes the Phase 7 & Phase 8 timeframe to 2012-2019. The new report provides a comprehensive assessment of the characteristics, experiences, and factors that influence the health of Delaware women who had a live birth before, during, and after pregnancy. The primary aim of the study was to provide a detailed overview of the multiple factors that influence health with an underlying SDOH framework and wellness perspective using PRAMS data. Despite the lack of measures in every dimension, evidence from PRAMS data underscores the importance of pre-pregnancy wellness, pregnancy wellness, and post

	pregnancy wellness. The strong socioeconomic gradient evident in these health indicators and outcomes further shows the impacts of "upstream" social determinants of health on "downstream" health conditions and issues. Select indicators from 2012-2019 comprehensive report on PRAMS were updated with 2020 PRAMS data and included in the DHMIC presentation. Some highlights from the data slides are given below. • Most effective methods of contraception (i.e., sterilization, long-acting reversible contraception) decreased from 31.9% in 2018 to 27.1% in 2020. Moderately effective methods of contraception (i.e., patch/ring, injectables depo, decreased by four percentage points from 27.3% in 2019 to 23.4% in 2020. Least effective methods (i.e., condoms, NFP/Rhythm, withdrawal) increased by 4-percentage points from 21.9% in 2019 to 24.8% in 2020 and no method also increased by 2-percentage points from 22.1% in 2019 to 24.7% in 2020. Most effective methods of contraception were highest among Hispanics 34.9% (95%CI: 32.1-37.8), and among Black (non-Hispanic) women at 27.6% (95%CI: 25.4-29.8), followed by White (non-Hispanic) women at 25.0% (95%CI: 23.7-26.4), and other races (non-Hispanic) 18.8% (95%CI: 15.5-22.2). • The intended pregnancy rate for Delaware women was 55% in 2020 an increase of about 1% from 2019 rate of 54.2%. The intended pregnancy rate increased by 7-percentage points for White (non-Hispanic) women from 59.6% in 2019 to 67.7% in 2020 but decreased by 10-percentage points for Hispanics from 58.0% in 2019 to 48.7% in 2020, and decreased by 3-percentage points for Black (non-Hispanic) from 36.5% in 2019 to 33.7% in 2020. • Current breastfeeding rates decreased by 3-percentage points from 59.0% in 2019 to 56.7% in 2020. • There was a 6-percentage point decrease in women indicated receiving home visiting services from 15.3% in 2019 to 9.0% in 2020 perhaps attributable to COVID-19. • Smoking prevalence after pregnancy increased by 1-percentage point from 11.0% in 2018 to 12.3% in 2020 and remained unchanged from 2019 prevalence of 12.4%. In addition to these highlights, a 2021 comprehensive PRAMS report was completed in April 2024.
Adverse Maternal Experiences study using PRAMS data:	The manuscript "Adverse maternal experiences and neonatal abstinence syndrome" was published. Hussaini KS, Yocher G. Adverse Maternal Experiences and Neonatal Abstinence Syndrome. *Maternal Child Health J.* 2023;27(3):497-507. doi:10.1007/s10995-022-03577-1
School-based Health Center Program Evaluation:	A new SBHC data brief for state fiscal year (SFY) 2021-2022 preliminary data slides were developed. The SBHC enrollment data that incorporates SFY 2019-2020 and the new SFY 2021-2022 data is now being used to develop an updated evaluation plan through linkage of Department of

	Education (DOE) school enrollment data, Medicaid claims data, and HDD data. Highlights from SBHC data slides are included below: • There were 9,407 students enrolled in SBHCs in SFY 2021-2022 and had 33,312 unique healthcare encounters with an average of four visits (M = 3.5; SD = 4.3) • Of those who were enrolled 31.3% were Hispanic, 32.2% were White (non-Hispanic), 27.8% were Black (non-Hispanic), and 7.8% were other races (non-Hispanic). Majority of the enrolled students were females (57.6%). • The top five performance measures included: 1) BMI, nutrition, and physical activity screening (61.2%); 2) depression screening (57.6%); 3) well-child visit that includes sports physicals (51.6%); 4) screening and assessment for developmental, emotional, and behavioral issues (48.2%); and 5) annual risk assessment (46.7%). • SBHC questions from Youth Risk Behavior Survey (YRBS) from CDC 2021 data for Delaware was also analyzed to gauge the profile users and non-users of SBHC. 2021 YRBS data for Delaware indicated that 28.4% of high school youth (i.e., grades 9-12) used SBHCs in 2021. There were no racial and ethnic differences of SBHC users and non-users. Consistent with SBHC enrollment data higher percentage of females were users of SBHC. As compared to non-SBHC users (43.3%), SBHC users (58.7%) played on at least one sports team. Although there were statistically non-significant differences, 77.4% of SBHC users described their grades as mostly A's and B's as compared to 73.2% of non-SBHC users. As compared to non-SBHC users, SBHC users reported: ▪ that they would most likely talk to parent of guardian if they had a personal problem with drinking, drug use, violence they had seen or that affected them or sexual behavior (35% SBHC user vs. 30% non-SBHC user); ▪ get the kind of help they need most of the time (24.2% SBHC user vs. 19.5% non-SBHC user); ▪ Strongly agree or agree that their parents or other adults in their family have clear rules and consequences for their behavior (78.6% SBHC user vs. 74.9% non-SBHC user); ▪ their parents or other adults in their family talked with them about what they expect them to do or no to do when it comes to sex (59.5% SBHC user vs. 49.4% non-SBHC user) ▪ were tested for HIV (10.5% SBHC user vs. 5.1% non-SBHC user) and STDs (11.4% SBHC user vs. 4.2% non-SBHC user) ▪ were ever taught in school about how to use a condom to prevent pregnancy or STDs (66.2% SBHC user vs. 58.7% non-SBHC user) In addition, an assessment of academic 2023-2024 will be completed in July/August 2024 upon completion of the academic year and when data is made available by the SBHCs.

Severe Maternal Morbidity Validation Study:	2021 Hospital Discharge Data (HDD) was made available in May and SMM indicators have been updated, however, delay in vital statistics data has also delayed linkage of HDD and Birth Certificate data, which has also delayed updating of the SMM 2010-2019 data brief. However, a retrospective analysis of linked maternal-infant dyads was conducted to assess the impact of SMI on several maternal and infant outcomes using 2010-2019 data. The abstract was presented at CityMatch 2022 conference in Chicago on 09/22/2022 . The objectives of the study was to assess the increase in prevalence of SMI among women who delivered during 2010-2019 in Delaware and to assess whether SMI is independently associated with adverse maternal (pre-eclampsia, SMM, and PPH), and infant outcomes (preterm birth, low birth weight, neonatal abstinence syndrome, and neonatal deaths). The matched dataset contained 96,273 mother infant pairs of live singleton births. During 2010-2019, 4.4% of women who delivered had SMI. Women with SMI had greater odds of pre-eclampsia (AOR = 1.5; 95%CI: 1.3-1.7), greater odds of delivering an infant with preterm birth (AOR = 1.2; 95%CI: 1.0-1.3), greater odds of delivering an infant with low birth weight (AOR = 1.2; 95%CI: 1.1-1.3), greater odds of delivering an infant with NAS (AOR = 1.5; 95%CI: 1.2-1.8), and greater odds of infant experiencing a neonatal death (AOR = 1.9; 95%CI: 1.3-2.6).
Birth Defects Comprehensive Data Brief	The 2010-2017 birth defects brief was using linked birth defects registry data and birth and death certificate data was updated with 2010-2019 data and is currently available on DE Thrives website. The updated comprehensive birth defects data brief for Delaware provides the burden of birth defects associated mortality and morbidity. The overall 2010-2019 birth defect prevalence rate in Delaware was 33.1 per 1,000 live births (95% CI: 32.1-34.2) or 3.3 percent to the U.S. Of the 3,612 infants who were diagnosed with a birth defect, 3,059 infants (85%) had a single birth defect and one in six (n = 553; 15%) infants with a birth defect had multiple birth defects. Birth defects were more common in males (55%) as compared to females (45%). Highlights on select indicators are below: • There were 314 cases in 2019 with a birth defect prevalence rate of 30.4 per 1,000 live births. The overall birth defect rate for 2010-2019 was 33.1 per 1,000 live births. • Birth defect prevalence rate was highest among 35 and older women 38.5 per 1,000 live births as compared to other age categories. • Prevalence of cardiovascular defects was highest 7.4 per 1,000 live births, followed by genitourinary 4.3 per 1,000 live births, musculoskeletal 2.6 per 1,000 live births. • The top 5 birth defects included ventricular septal defects (VSD) 5.5 per 1,000 live births, followed hypospadias 3.7 per 1,000 live births, and developmental hip dysplasia 1.9 per 1,000 live births, clubfoot 1.1 per 1,000 live births, and atrial septal defect 1.1 per 1,000 live births. The birth defects registry data linkage to PRAMS data is underway.

Behavior Risk Factor Surveillance System (BRFSS)	Delaware MCH epidemiologist has actively participated in BRFSS data workgroup and extensively utilized the BRFSS data to inform several MCH initiatives relating to women of childbearing ages. Most recently, BRFSS 2017-2021 data was utilized to understand the impact of COVID-19 on variety of chronic conditions. An updated of women of childbearing age report for 2016-2021 is currently underway.
Reproductive Health Data Brief	Using the latest BRFSS and PRAMS data an updated data brief of reproductive health was developed and is available on DE Thrives website. Some of the highlights are included below: • As per the BRFSS results, among Delaware women of 18 to 49 years of age, there was a 23% increase in the use of long-acting reversible contraception (LARCs) and an eight-percentage point decrease in no methods of contraception during 2017 to 2021. During 2017-2020, the percentage of Delaware women who indicated that they intended to have children in the future increased by nine-percentage and then decreased by five-percentage points in 2021. • As per PRAMS results, among women who had a recent live birth, the percent of women who indicated they "wanted the pregnancy then or sooner" increased from 47.0% in 2012 to 57.2% in 2021 and the percent of women indicating that they "wanted later or unwanted" decreased from 38.0% in 2012 to 25.7% in 2021. The PRAMS data also captures postpartum contraceptive use. In 2021, slightly over 1 in 3 women who had a live birth, indicated using most effective methods of contraception, and 1 in 4 did not use any contraception postpartum.
Sudden Death in the Young (SDY) data brief	The first comprehensive data brief on Sudden Death in the Young (SDY) was developed using registry data from SDY collected by the Maternal and Child Death Review Commission (MCDRC). The SDY data brief is available on DE Thrives website. Some of the highlights are included below: • In the U.S., about 1 in 800 infants (120/100,000 live births) and 1.9/100,000 children die unexpectedly. In Delaware, a total of 97 children died unexpectedly during 2017-2021. Of the 97 deaths, 45 (46%) deaths were in the explained and 52 (54%) were unexplained causes of death category. • The 2017-2021 SDY rate for infants in Delaware was 104.6 (95%CI: 78.8-136.1) per 100,00 live births as compared to the 2015-2016 U.S. SDY infant rate of 119.5 (95%CI: 111.8-127.6) per 100,000 live births. Between 2017 and 2021, Delaware saw a 45% decrease in SDY infant rates from 138.4 (95%CI: 77.5-228.2) per 100,000 live births in 2017 to 76.3 (95%CI: 33.0-150.3) per 100,000 live births in 2021. • The 2017-2021 SDY rate for children in Delaware was 4.3 (95%CI: 3.1-5.8) per 100,000 children and the rate was about

	2.2 times that of the 2015-2016 U.S. SDY rate of 1.9 (95%CI: 1.6-2.1) per 100,000 children. • Delaware's Black non-Hispanic SDY infant rate of 231.5 (95%CI: 159.4-325.0) was about three times that of White non-Hispanic SDY infant rate of 75.3 (95%CI: 45.3-117.5) per 100,000 live births. • Among Delaware infants, infant suffocation accounted for 63% of all explained infant deaths with an overall rate comparable to the U.S.
Early Childhood Comprehensive Systems (ECCS)	Although the ECCS program was not awarded HRSA funds beyond 2021, the program has maintained its work on improving developmental screening rates. In January 2020, the average number of Ages and Stages (ASQ) screens reportedly completed was about 400 per month. By December 2023, this average increased to roughly 925 ASQ screens per month. Although the number of Parent's Evaluation of Developmental Status (PEDS) Online screens decreased from approximately 1,200 per month in January 2020 to about 500 per month in December 2023, much of this was due to Nemours practices switching to using the Survey of Wellbeing of Young Children (SWYC). In addition to developmental screening, the ECCS program successfully completed a Goal Concordance initiative to both help educate parents on the Strengthening Families Framework and empower these parents to develop action plans to improve their parenting. Finally, the ECCS program launched a pilot program to improve documentation of screening and referrals through the CHADIS system. Working with four pediatric practices, this pilot seeks to better link developmental screening results and referrals with early intervention programs. As of June 2024, a satisfaction survey of this pilot program is underway with the completion of the pilot program likely to occur before the end of calendar year 2024.
Early Hearing Detection Intervention (EHDI)	The EHDI program has integrated the 1-3-6 goals (i.e., all infants should be screened for hearing loss before 1 month of age; with diagnostic testing before 3 months of age for those who do not pass screening; and early intervention (EI) services before 6 months of age for those with permanent hearing loss) into its programming. As of Q1 2024, the percentage of infants reportedly screened by one month of age was 97.3 percent, which is in alignment with other states in the Mid-Atlantic and Northeast. The 3-month and 6-month goals as reported to the CDC are also in alignment with other states in the region. The EHDI program is now working on measuring the 3-month and 6-month goals in real time (rather than when needed for reporting) so as to ensure these favorable percentages are maintained if not improved.
Help Me Grow (HMG)	The HMG program has considerably grown since its inception in Delaware in calendar year (CY) 2012. The percentage increase in the number of calls between CY 2012 and CY 2023 (i.e., by December 31, 2023), is 1,174 percent (329 to 4,192). The percentage increase in the number of children

	in the same period is 1,333 percent (386 to 5,530). The HMG program is now working on a strategy to strengthen its reach across the state vis-à-vis eligible families and partner programs as well as help reduce disparities in adverse childhood outcomes for families using the service.
Maternal, Infant, and Early Childhood Home Visiting (MIECHV)	The MIECHV program has carried out numerous initiatives to enhance home visitation within the state, namely: • Through continuous quality improvement (CQI) initiatives, improving engagement and retention of MIECHV enrollees at MIECHV-supported local implementation agencies (LIAs). • Maintaining CQI efforts to improve upon breastfeeding and safe sleep, two of the 19 performance measurements that the MIECHV LIAs tended to not fare as well on historically. • For the Parents as Teachers (PAT) LIAs, ensuring a specific visit frequency is maintained for families who have been identified as having multiple stressors. • On a quarterly basis, carrying out quality assurance to make certain demographic, service utilization, and performance measurement data is appropriately documented. • Conducting an outreach project that helped better understand what families who graduated from the MIECHV programs liked/did not like about it, why families left the program, and what families would like to see more in the programs. • Carrying out a project on improving referrals of MIECHV families who may benefit from interacting with a community health worker (CHW) due to a high level of adverse structural and social determinants of health (SSDOH). Conversely, improving referrals of families identified by CHWs who are eligible for MIECHV services but have not yet enrolled in such services.
Personal Responsibility Education Program (PREP)	The program has continuously been implementing two evidence-based curricula, *Making Proud Choices!* for middle school students and *Be Proud! Be Responsible!* for high school students. Overall, through a series of pre- and post-surveys, the programs have documented an improvement in knowledge and attitudes among students who have completed the curriculum. Between January 2024 and May 2024, almost 900 students completed one of the two curricula with survey results to be analyzed and reported in July 2024.