

Tennessee Public Health Strategic Plan to Improve Birth Outcomes and Reduce Infant Mortality 2018 - 2023

Background

In January 2012, the federal Maternal and Child Health Bureau (MCHB) convened an infant mortality summit for states in Regions IV and VI. A team of state public health and academic partners attended the Summit and outlined key focus areas for reducing infant mortality and improving birth outcomes. A larger team from Tennessee subsequently participated in a June 2012 meeting of the Collaborative and Improvement and Innovation Network (CoIIN) also conducted by MCHB, which focused on using techniques of continuous quality improvement to improve preconception health, improve birth outcomes and reduce infant mortality.

Following these two meetings, the Tennessee Department of Health (TDH) convened a Public Health Advisory Committee on Infant Mortality to develop a strategic plan for improving birth outcomes and reducing infant mortality using a public health approach. A listing of Advisory Committee Members can be found in the Appendix to this document.

The Advisory committee set the following mission: **To provide coordination for diverse, data-driven efforts aimed at reducing infant mortality in Tennessee and to disseminate successful strategies to local, state and federal stakeholders.**

The committee also identified the following vision: **All Tennessee infants are safe, healthy and reach their first birthday.**

In 2012 and 2013, the Advisory Committee established Tennessee-specific priorities for infant mortality reduction based on state-specific data. The Advisory Committee reconvened in 2017 and 2018 to update the strategic plan. In addition to the Advisory Committee members, public input was sought from several key stakeholder groups including the Perinatal Advisory Council, the Breastfeeding Advisory Committee, Refugee Centers, Fetal and Infant Mortality Review teams and Tennessee Department of Health's Office of Minority Health and Disparities Elimination. The following plan has been updated with strategies and goals for 2018-2023 which seek to reduce the infant mortality rate in Tennessee to from 7.4 per 1,000 live births to 6.7 per 1,000 live births by 2023.

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Overall Goal:

Reduce the infant mortality rate in TN to 6.7/1000 live births by 2023

Strategy for setting target: Consistent with 10% improvement as in Healthy People 2020, MICH 1.3

Indicator baseline: Infant mortality rate was 7.4 in TN in 2017

Data Source: Birth and Death Statistical Systems, Office of Vital Records and Statistics, Tennessee Department of Health

Strategy 1: Decrease the percent of unintended pregnancies to 29.7% by 2023.

Strategy for setting target: Consistent with Healthy People 2020 change of 10%, FP-1

Indicator baseline: 33%* (2016)

Data Source: TN PRAMS Survey, Office of Population Health Assessment, Tennessee Department of Health

*remaining percentage reflects both intended and unsure

- **Action 1:** Increase same day access to all forms of contraception to women of childbearing age who desire a contraceptive method.
- **Action 2:** Increase the number of healthcare providers discussing a reproductive life plan.

Strategy 2: Maintain a strong public health infrastructure to improve birth outcomes and reduce infant mortality.

Strategy for setting target: Peer-reviewed literature to support perinatal regionalization and newborn screening/follow-up

Data Source: Ongoing existence of regionalized perinatal system and newborn screening/follow-up programs, and Community Health Access and Navigation in Tennessee (CHANT)

- **Action 1:** Continue funding the regional perinatal centers each year to maintain a system of regionalized high-risk care, education for health care providers, 24-hour consultation, and transport, as needed, for high-risk pregnancies and infants.
- **Action 2:** Continue current statewide metabolic, hearing, and critical congenital heart disease (CCHD) screening and follow-up programs.
- **Action 3:** Continue to support the Tennessee Initiative for Perinatal Quality Care (TIPQC), which is designed to engage stakeholders across the state and focus on quality improvement projects to improve perinatal health outcomes.
- **Action 4:** Implement the CHANT engagement and care coordination system in all 95 counties in the state to address medical and social determinants of health for infants at highest risk for infant mortality, according to a validated risk prediction model.

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Strategy 3: Increase the proportion of very low birthweight infants born at level III hospitals or subspecialty perinatal centers to 85.5% by 2023.

Strategy for setting target: Consistent with Healthy People 2020 increase of 10%, MICH-33
Indicator baseline 77.7% (2016)

Data Source: Match of birth certificate data with hospital information (Joint Annual Report)

- **Action 1:** Utilize inter-hospital transfer of high risk maternity patients to ensure that at least 90% of high risk infants in Tennessee are born at hospitals capable of providing the level of care they need.
- **Action 2:** In conjunction with perinatal stakeholders, implement the CDC-designed LOCATE tool (*CDC Maternal & Neonatal Levels of Care Assessment Tool*) and assess levels of perinatal care in Tennessee birthing facilities.

Strategy 4: Decrease the rate of sleep-related deaths to 1.5 per 1,000 live births by 2023.

Strategy for setting target: Consistent with Healthy People 2020 decrease of 10%, MICH-1.9
Indicator baseline: 1.7 per 1,000 live births (2016)

Data Source: State Child Fatality Review Report, Tennessee Department of Health's Division of Family Health and Wellness (FHW)

- **Action 1:** Increase the number of birthing hospitals that have received the Cribs for Kids National Safe Sleep Hospital Certification.
- **Action 2:** Update and disseminate standardized training materials and provide educational presentations on safe sleep to daycare facilities, hospitals, pediatric care providers, women's health providers, faith based communities/organizations, and generational caregivers that interact with pregnant women and/or infants. Ensure materials are made available in multiple languages.
- **Action 3:** Provide educational materials on safe sleep practices to all parents of new infants through the "Welcome Baby" book (~80,000 infants/year).
- **Action 4:** Increase media outreach through social media, press releases, community advertisement and radio and public service announcements, including messaging specifically to highlight the disparities among sleep-related deaths.

Strategy 5: Increase the percentage of women who begin prenatal care in the first trimester to 77.7% by 2023.

Strategy for setting target: Consistent with Healthy People 2020 increase by 10%, MICH-10.1
Indicator baseline: 70.6% (2017)

Data Source: Birth Statistical System, Office of Vital Records and Statistics, Tennessee Department of Health

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- **Action 1:** Increase the percentage of eligible pregnant women applying for presumptive eligibility for TennCare by assisting women through the application process at the local health departments.
- **Action 2:** Increase the number of women and children enrollees in TennCare and CoverKids programs.

Strategy 6: Decrease the proportion of preterm births to 9.9% per 1,000 live births by 2023.

Strategy for setting target: Consistent with Healthy People 2020 decrease by 10%, MICH-9.1
Indicator baseline: 11.0% (2017)

Data Source: Birth Statistical System, Office of Vital Records and Statistics, Tennessee Department of Health

- **Action 1:** Increase the number of hospitals reporting early elective delivery data through TIPQC or Tennessee Hospital Association within four months of the end of each calendar year.
- **Action 2:** Educate primary care providers, obstetricians and pediatric care providers about the risk of a preterm birth and importance of interconception care (including management of chronic conditions) through press releases, webinars and awareness campaigns.
- **Action 3:** Increase the number of women participating in a group prenatal care program.
- **Action 4:** Increase the provision and utilization of 17 alpha-hydroxyprogesterone for eligible women.
- **Action 5:** Increase access to interconception care through federally qualified health centers and community health organizations.

Strategy 7: Increase breastfeeding initiation among TN newborns to 89% of births by 2023.

Strategy for setting target: Consistent with Healthy People 2020 method of using trend data
Indicator baseline: 80.9% (2017)

Data Source: Birth Statistical System, Office of Vital Records and Statistics, Tennessee Department of Health

- **Action 1:** Develop and disseminate materials that promote the benefits of breastfeeding for mothers and infants to prenatal healthcare providers.
- **Action 2:** Increase the number of hospitals utilizing evidence-based breastfeeding programs.
- **Action 3:** Increase messaging directed to mothers and their social support networks to highlight the benefits of breastfeeding for women.

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- **Action 4:** Increase information on breastfeeding and its benefits to disparate populations.

Strategy 8: Decrease the proportion of Tennessee women who smoke during pregnancy to 10.4% by 2023.

Strategy for setting target: Consistent with Healthy People 2020 method of using trend data
Indicator baseline: 12.9% (2017)

Data Source: Birth Statistical System, Office of Vital Records and Statistics, Tennessee Department of Health

- **Action 1:** Increase the number of pregnant women enrolled in pregnancy smoking cessation programs.
- **Action 2:** Screen all pregnant women in TDH targeted case management, care coordination, and evidence-based home visiting programs for tobacco use and refer to smoking cessation services, as indicated.

Strategy 9: Reduce disparities in birth outcomes and infant mortality through improved programmatic understanding of social determinants of health and systemic barriers which significantly impact birth outcomes.

Strategy for setting target: Consistent with Healthy People 2020 expanded goal to eliminate disparities and also achieve health equity, particularly related to demographic factors including: race and ethnicity, gender, disability status or special health care needs, and geographic location (rural and urban).

- **Action 1:** Convene a health equity work group within TDH FHW to ensure all programs are focusing on health equity.
- **Action 2:** Identify and examine disparities in health outcomes data for vulnerable and disadvantaged populations by factors including age, race, gender, and place.
- **Action 3:** Develop strategies which address the social determinants of health to improve birth outcomes.

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