

# ISSUE BRIEF: MATERNAL, INFANT AND CHILD HEALTH

The well-being of mothers, infants, and children determines the health of the next generation and helps predict future public health challenges for families, communities, and the medical care system. Moreover, healthy birth outcomes and early identification and treatment of health conditions among infants can prevent death or disability and enable children to reach their full potential. Despite major advances in medical care, critical threats to maternal, infant, and child health still exist. Among the Nation's most pressing challenges are reducing the rate of preterm births and the infant death rate.

## Key Facts:

- Nearly half of all pregnancies are unintended. Associated risks include low birth weight, postpartum depression, and family stress
- 31% of women who deliver an infant suffer pregnancy complications, ranging from depression to the need for a cesarean delivery
- Although rare, the risk of death during pregnancy has declined little over the last 20 years
- Infant mortality rates are higher among women of color, adolescents, unmarried mothers, people who smoke, those with lower education levels, and those who did not obtain adequate prenatal care
- The preterm birth rate has risen more than 20% in the past 20 years. Preterm infants are more likely to suffer complications at birth, die within the first year of life, and have lifelong health challenges such as cerebral palsy or learning disabilities
- On average, 42,000 deaths per year are prevented among children who receive recommended vaccines
- There are approximately 19 million new cases of sexually transmitted infections each year—almost half of these are in young people age 15 to 24.
- Binge drinking and illicit drug use are associated with intimate partner violence and risky sexual behaviors, including unprotected sex and multiple sex partners. These activities increase the risk of unintended pregnancies and increase the risk of acquiring HIV and other sexually transmitted infections

## *Reproductive and Sexual Health*

Healthy reproductive and sexual practices can play a critical role in enabling people to remain healthy and actively contribute to their community. Planning and having a healthy pregnancy is vital to the health of women, infants, and families and is especially important in preventing teen pregnancy and childbearing, which will help raise educational attainment, increase employment opportunities, and enhance financial stability. Access to quality health services and support for safe practices can improve physical and emotional well-being and reduce teen and unintended pregnancies, HIV/AIDS, viral hepatitis, and other sexually transmitted infections.

## *Childhood Immunizations*

Vaccines are among the most cost-effective clinical preventive services and are a core component of any preventive services package. Childhood immunization programs provide a very high return on investment. For example, for each birth cohort vaccinated with the routine immunization schedule (this includes DTaP, Td, Hib, Polio, MMR, Hep B, and varicella vaccines), society saves 33,000 lives; prevents 14 million cases of disease; reduces direct health care costs by \$9.9 billion and saves \$33.4 billion in indirect costs. Despite progress, about 300 children in the U.S. die each year from vaccine-preventable diseases. Communities with pockets of unvaccinated and undervaccinated populations are at increased risk for outbreaks of vaccine-preventable diseases.

## *Child Abuse and Neglect*

Adverse experiences in childhood, including violence and maltreatment, are associated with health risk behaviors such as smoking, alcohol and drug use, and risky sexual behavior, as well as health problems such as obesity, diabetes, ischemic heart disease, sexually transmitted infection, and attempted suicide.

## *Social Determinants of Health*

A range of biological, social, environmental, and physical factors have been linked to maternal, infant, and child health outcomes. These include race and ethnicity, age, and socioeconomic factors, such as income level, educational attainment, medical insurance coverage, access to medical care, prepregnancy health, and general health status. For example, children reared in safe and nurturing families and neighborhoods, free from maltreatment and other social problems, are more likely to have better outcomes as adults.

# HIGHLIGHTS FROM THE 2015 COMMUNITY HEALTH ASSESSMENT

*Alpena, Antrim, Charlevoix, Cheboygan, Emmet, Montmorency, Otsego, and Presque Isle counties*

## Regional Statistics

**Infant mortality rate:** Five-year infant mortality rates (2009-13) range from 4.8 per 1,000 live births in Charlevoix County to 15.2 per 1,000 live births in Presque Isle County; for comparison, Michigan infant mortality rate for the same period was 6.0.

**Early prenatal care:** The percentage of births to women who received prenatal care within the first three months of their pregnancy ranges from 59.9% in Charlevoix County to 86.3% in Alpena County. Only Alpena County exceeds the State rate of 77.9%.

**Low birthweight:** The proportion of infants who were born weighing less than 2,500 grams ranges from 4.2% in Charlevoix County to 9.6% in Antrim County. Low birthweight rates were higher than State (7.8%) in just 2 counties: Antrim and Otsego.

**Maternal smoking:** Maternal smoking rates are high across the tip of the mitt, exceeding State rate (19.7%) in every county. Rates range from 26.3% in Emmet County to 49.8% in Alpena County.

**Childhood immunization:** The proportion of children age 19-35 months who have received recommended immunizations (4 Dtap, 3 Polio, 1 MMR, 3 Hib, 1 Varicella, 4 PCV, and 2 HepA) ranges from 65.4% in Presque Isle County to 79.4 in Emmet County. Only Charlevoix and Emmet counties exceed State rate.

**Child abuse and neglect:** Rates for confirmed child abuse and neglect are higher in all of the tip of the mitt counties than the State as a whole (14.9 per 1,000 children < 19). They range from 16.3 per 1,000 in Emmet to 29.9 per 1,000 in Antrim County.

## Community Conversations

117 community members and representatives from local health departments, hospitals and other health care providers, social service agencies, schools, business, and government participated in a Community Conversation to answer the question, "What can we do here in this county to move closer to our vision of a healthy community?" Actions related to maternal, infant and/or child health were identified in the following counties:

ALPENA	ANTRIM	CHARLEVOIX-EMMET	CHEBOYGAN	MONTMORENCY	OTSEGO	PRESQUE IS
X	X	X	X	X	X	X

## Major Forces of Change

**Perinatal Initiative of Northern Lower Michigan:** The Perinatal Initiative was organized in 2012 by the North Central Council of the Michigan Health and Hospital Association. Its members include the 12 hospitals and 7 local health departments that serve a 21-county region as well as many state and local partners.

**Michigan Home Visiting Initiative:** Health Department of Northwest Michigan is implementing Healthy Families America in the counties with highest need in a 21-county region. With \$1.6M in annual funding, it provides voluntary, family support services in the homes of at-risk pregnant women and families with children aged 0-5.

**Sustaining Community-Based Immunization Project:** District Health Department #10 was awarded \$492,000 on behalf of the 6 local health department partners in the Northern Michigan Public Health Alliance (NMPHA). It is designed to increase immunization rates among children and older adults in MCI Region 5 in a 2 ½ time period (2015-2018)

**Health Systems Change for Tobacco Dependence Treatment:** Health Department of Northwest Michigan was awarded this \$125,000, 1-year grant on behalf of the NMPHA. The purpose of the project is to implement the CDC's Tobacco Dependence Treatment Guidelines consistently in health departments' Family Planning Clinics in a 25-county region.

