

The State of Preconception Health in North Carolina

A Fact Sheet from the North Carolina Women's and Children's Health Section and the State Center for Health Statistics

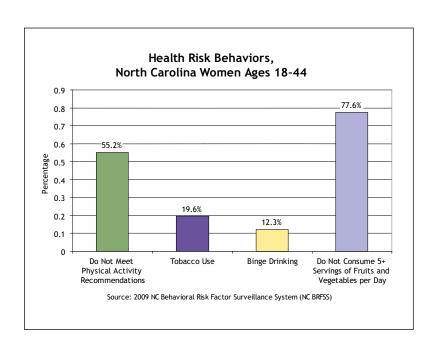
Why is Preconception Health Important?

There are approximately 1.7 million women of childbearing age in North Carolina. They are our mothers, our sisters, our aunts, our friends, and our neighbors. They work in our schools, our offices, our factories, our hospitals, our restaurants, and our homes. The health of these women is inextricably linked to the health of their babies and can have an impact on the health of their families as well.



Risk Behaviors that Affect Women

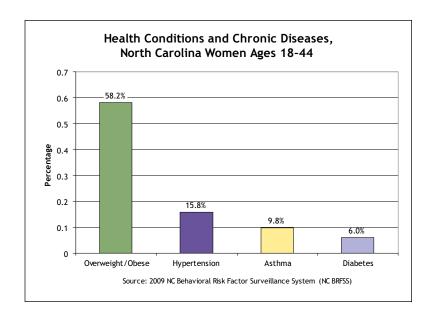
Many women of childbearing age in North Carolina (defined as women from 18 to 44 years old) engage in risky behaviors which might make them more vulnerable to chronic diseases, such as cardiovascular disease, diabetes, liver disease, respiratory disease, and cancer. These risk factors include smoking, alcohol misuse, inadequate physical activity, and poor nutrition.



Over half of women in this age group do not meet physical activity recommendations (55%), one in five (20%) are current smokers, more than one in ten (12%) report binge drinking, and more than three out of four (78%) report not consuming recommended levels of fruits and vegetables.² These risk behaviors can contribute to reduced life expectancy as well as poor pregnancy outcomes including preterm birth, low birth weight, and birth defects.³

Chronic Conditions

Over half of infant deaths in North Carolina can be attributed to medical issues of the mother, many of which existed before pregnancy.⁴ Despite their relatively young age, many North Carolina women of childbearing age already suffer from chronic conditions that affect their overall health. More than half (58%) of the women in this age group are overweight or obese, approximately 16 percent have been diagnosed with hypertension, nearly 10 percent



report having asthma, and 6 percent have been diagnosed with diabetes.² All of these health conditions are associated with a greater likelihood of pregnancy-related risks for both the mother and the child.

Mental and Emotional Health

The link between mental and emotional health and physical health is well established. Approximately 16 percent of women in this age group report poor mental health (defined as reporting that their mental health was not good on 14 or more days out of the past 30 days) and 10 percent reported

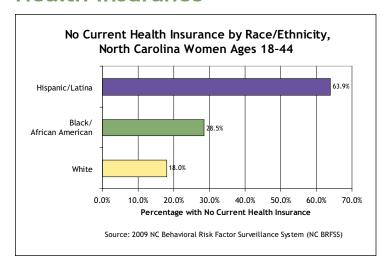


depression after the births of their babies.^{2,5} Postpartum depression was more common among

Mental Health and Social/Emotional Support		
Women Ages 18-44 ¹		
Poor Mental Health	16%	
Do Not Get Social/Emotional Support	24%	
New Mothers Ages 18-44 ²		
Postpartum Depression	10%	
Not Enough Social/Emotional Support After Delivery	16%	
¹ 2009 NC BRFSS survey		
² 2008 NC PRAMS survey		

women who were on Medicaid and those who were not married. More than one in five (24%) of North Carolina women ages 18–44 report that they do not get the social or emotional support that they need, and 16 percent of new mothers report that they did not have adequate social and emotional support available to them after delivering their baby.⁵

Health Insurance



Lack of health insurance plays a major role in limiting access to medical care. Overall, a quarter of North Carolina women in this age group (24.5%) do not have health care insurance. Racial and ethnic disparities in health insurance coverage exist, with more than 60 percent of Hispanic/Latina and 29 percent of African-American women reporting no health insurance, compared with just 18 percent of

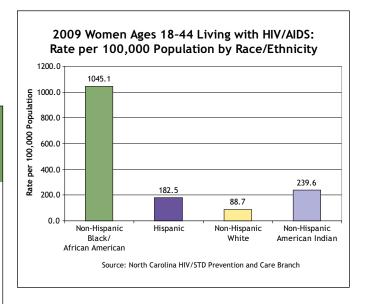
whites.² Among women who just delivered, nearly half (44.5%) reported that they did not have health insurance just before they became pregnant.⁵ Nearly one in three (29%) reported that they have not had a physical or health check-up in the past year.²

Sexually Transmitted Infections

North Carolina women of color suffer a disproportionately high rate of sexually transmitted infections including HIV.6 Women who suffer from these infections and become pregnant

place themselves and their babies at risk for complications including prematurity, low birth weight, long-term disability, and death.

2009 Rate of Sexually Transmitted Infections for Women Ages 18—44	
	Case Rate per 100,000
Chlamydia	1671.1
Gonorrhea	407.6
Living with HIV/AIDS	330.5
Syphilis (PSEL)	11.0
Source: North Carolina HIV/STD Prevention and Care Branch	



Unintended Pregnancies



Further complicating North Carolina's efforts to give every child the best start possible is the fact that a substantial portion of the pregnancies ending in a live birth in our state are unintended (43%).⁵ Unintended pregnancies, meaning mistimed or unplanned pregnancies, are associated with poor birth outcomes. Among women who have just given birth, nearly one in three (31%) say that they wanted to become pregnant later and 12 percent say that they did not want to become pregnant at all. Nearly half (47%) of new mothers reported that they were not trying to get pregnant at the time of conception but were not doing anything to keep from getting pregnant.⁵

Couples with unplanned pregnancies may have risk

factors or be engaging in behaviors that put their own health and unknowingly the health of their unborn child at risk. Healthy timing and spacing of pregnancy provides couples the opportunity to prepare for the healthiest pregnancy possible. Unintended pregnancy has been associated with elective abortions, late entry into prenatal care, low birth weight, and child abuse and neglect.⁷ The prevention of high risk and unwanted pregnancies can have a major impact on the reduction of infant mortality.⁸

Pregnancy Preparedness

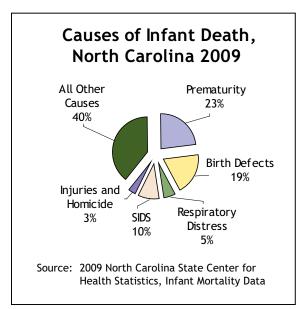
In addition to decreasing risk behaviors, screening for chronic conditions, and planning for pregnancies, women in this age group can take other steps towards promoting healthier pregnancies. Health care providers recommend that all women of reproductive age take folic acid on a daily basis. Folic acid can reduce the incidence of neural tube defects by up to 70

percent and has the greatest effect in the very early weeks of development, before women may realize they are pregnant. Women who are up to date on their immunizations, including hepatitis B, chickenpox, and rubella, also protect themselves and their babies from becoming ill with these infections. These infections can cause very serious problems for the unborn baby including preterm birth, birth defects, and death.

Pregnancy Preparedness Indicators		
Indicator	N.C. Women Age 18-44	
Pregnancy Was Unintended ¹	43%	
Does Not Take Folic Acid at Least Five Days a Week ²	72%	
¹ 2008 NC PRAMS survey ² 2009 NC BRFSS survey		

Preterm Birth

Preterm birth is one of the leading causes of infant mortality in North Carolina, accounting



for 23 percent of all infant deaths in the state. Every year, more than one in 10 babies are born too early in North Carolina, and the number is increasing. 11,12 For those who survive, preterm birth can have a lifelong impact on their health, placing them at greater risk for insulin resistance syndrome, coronary heart disease, and certain cancers later in life. 13,14 Other short- and long-term impacts of premature birth include vision problems, cerebral palsy, and asthma. As many as half of all pediatric neurodevelopmental problems can be attributed to preterm birth.

Health Disparities

African-American infants are 2.4 times more likely to die before the age of 1 than Caucasian infants. Severe disparities in birth outcomes and women's health have persisted through generations of African Americans in North Carolina. Attention to the various components of preconception health with a special focus on African-American women holds particular promise for addressing health disparities. It may also help protect other minority women at risk for poor birth outcomes, including American Indian women.



The Case for Preconception Health

Preconception health offers a new perspective on an old problem. This vision presents healthy women as a desirable end in itself and not just as an important way to improve the health of their babies. Preconception health helps women think about how their behaviors, lifestyles, and medical conditions affect their ability to live healthy lives and to have healthy children. It gives them the opportunity to be assessed for risks, to be counseled about healthy living, and to be offered treatment if needed.

Tracking Women's Health in North Carolina

The North Carolina State Center for Health Statistics supports data collection and analysis of health indicators for women of childbearing age. The Center has designed a new Web page, www.schs.state.nc.us/SCHS/data/preconception.html, that provides trend data collected from state surveys and vital statistics on a variety of health indicators for women ages 18–44 years. These data provide information on risk behaviors, infections, chronic conditions and health care access and utilization. The Web site also provides data on social determinants of health, general health status, mental health, and emotional support.

Programs and Services

The Division of Public Health's Women's Health Branch develops and promotes programs and services that protect the health and well-being of women during and beyond their reproductive years. The Branch also develops clinical guidance and offers technical assistance, consultation and training for professionals who provide women's health services. Clinical services provided through local health departments serving each of the 100 counties in North Carolina strive to integrate women's wellness in their primary care, family planning, prenatal care, immunization, and WIC programs. Among the programs that provide support services are the *17P Project* for preterm birth prevention, the *Healthy Beginnings* program, the *Baby Love Plus* program, and the *Teen Pregnancy Prevention Initiatives*.

The *17P Project* is managed by the UNC Center for Maternal and Infant Health. Through this program, low-income medically-eligible women who have had a prior preterm birth, may receive weekly injections of 17 alpha hydroxyprogesterone caproate (17P) from 16 weeks gestation onward. The 17P injections reduce the risk of a repeat preterm birth by 33 percent. North Carolina Medicaid covers 17P and state funding has been allocated to cover 17P for low-income uninsured women. For more information on 17P or how to become a 17P provider call 919-843-7865 or visit www.mombaby.org.

Healthy Beginnings, North Carolina's Minority Infant Mortality Reduction program, provides outreach, home visiting, and support activities for minority pregnant women up until two years after delivery. The Baby Love Plus program activities include outreach, case management, depression screening, and health education for pregnant women and new mothers up to two years after delivery. The Teen Pregnancy Prevention Initiatives (TPPI) seek to prevent adolescent pregnancy through family life education, youth development programs, parent workshops, community awareness campaigns, male involvement efforts, and support services for teen parents. For more information about any of these programs, educational materials and clinical guidelines for patients and providers please visit http://whb.ncpublichealth.com or call 919-707-5700.

References

- North Carolina State Center for Health Statistics, NCHS Bridged Population Estimates, 2008.
 Available at: www.schs.state.nc.us/SCHS/data/ population/nchspop.cfm.
- North Carolina State Center for Health Statistics, Behavioral Risk Factor Surveillance System (BRFSS), 2008–2009. Available at: www.schs.state. nc.us/SCHS/data/preconception.html.
- 3. Johnson K, Posner SF, Biermann J, Cordero JF, Atrash HK, Parker CS, Boulet S, Curtis MG, CDC/ ATSDR Preconception Care Work Group, Select Panel on Preconception Care. Recommendations to improve preconception health and health care United States. MMWR Recomm Rep. 2006 Apr 21;55(RR-6):1–23.
- 4. Julia Declerque et al. North Carolina's Infant Mortality Problems Persist: Time for a Paradigm Shift. *NCMJ*. 2004:65(3):138–42.
- 5. North Carolina State Center for Health Statistics, Pregnancy Risk Assessment Monitoring System (PRAMS), 2008. Available at: www.schs.state. nc.us/SCHS/data/preconception.html.
- 6. North Carolina Division of Public Health, HIV/ STD Prevention and Care Branch.
- 7. Brown SS, Eisenberg L. The Best Intentions: Unintended Pregnancies and Well-being of Children and Families. Washington, DC: National Academy Press: 1995.
- 8. Mohllajee AP, Curtis KM, Morrow B, et al. Pregnancy intention and its relationship to birth and maternal outcomes. *Obstet Gynecol*. 2007;109:678–686.
- 9. Milunsky A, Jick H, Jick SS, et al. Multivitamin/ folic acid supplementation in early pregnancy reduces the prevalence of neural tube defects. *JAMA*. 1989;262:2847–52.
- 10. Coonrod DV, Jack BW, Boggess KA, et al. The clinical content of preconception care: immunizations as part of preconception care. *Am J Obstet Gynecol*. 2008;199(6 Suppl B):S290–95.
- 11. North Carolina State Center for Health Statistics, 2008 North Carolina Infant Mortality Report, Table 7: 2008 Infant Deaths by Cause of Death. Available at: www.schs.state.nc.us/SCHS/deaths/ims/2008/table7.html.
- 12. North Carolina State Center for Health Statistics, Risk Factors and Characteristics for 2008 North Carolina Resident Births: All Mothers. Available at: www.schs.state.nc.us/SCHS/births/matched/2008/all.html.
- 13. Barker DJ. Fetal Origins of Coronary Heart Disease. *BMJ*. 1995;311(6998):171–74.

- 14. Swamy GK, Østbye T, Skjærven R. Association of Preterm Birth With Long-term Survival, Reproduction, and Next-Generation Preterm Birth, *JAMA*. 2008;299(12):1429–36. JAMA. 2008;299[12]:1477–1478.
- 15. North Carolina State Center for Health Statistics, Racial and Ethnic Health Disparities in North Carolina: 2010 Report Card. Available at: www.schs.state.nc.us/SCHS/pdf/MinRptCard_WEB 062210.pdf.

Additional Resources

Programs and services, including birth control, insurance coverage and clinic locations:

CARE-LINE 1-800-662-7030 or www.nccarelink.gov.

Birth control, clinic services and multivitamins with folic acid:

Health Departments by County www.ncalhd.org/county.htm. Planned Parenthood—1-866-942-7762 or www.plannedparenthood.org/centralnc/index.htm.

Health care services that are free or available at reduced costs:

NC Health Care Help—www.nchealthcarehelp.org. N.C. Community Health Clinic Association—919-469-5701 or www.ncchca.org. N.C. Free Clinics—336-251-1111 or www.ncfreeclinics.org.

Women's health and social support services by county: www.nchealthystart.org/RICHES/01RICHES _map.htm.

Tools and local programs that support healthy living:

NC Prevention Partners—1-888-919-6277 or www.ncpreventionpartners.org.
East Smart, Move More—
www.myeatsmartmovemore.com.

Help quitting tobacco use:

NC Quitline at 1-800-QUIT-NOW or www.smokefree.gov.

Emergency Contraception:

www.NotTooLate.com.

HIV testing:

1-888-448-4732

Mental health resources:

Mental Health Association in North Carolina Information and Referral Line—800-897-7494 or www.mha-nc.org.

State Center for Health Statistics

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