THE STATUS OF WOMEN IN NORTH CAROLINA:

HEALTH & WELLNESS

Council for Women & Youth Involvement
Department of Administration

Institute for Women's Policy Research
Informing policy. Inspiring change. Improving lives.

Status of Women in the States

About This Report

The Status of Women in North Carolina: Health & Wellness is the second in a series of four publications on women's status in North Carolina commissioned by the North Carolina Council for Women and Youth Involvement. The first publication, *Employment & Earnings*, was released in 2018. Future publications will cover poverty and opportunity and political participation. The report builds on the Institute for Women's Policy Research's long-standing report series, *The Status of Women in the States*, which has provided data on the status of women nationally and for all 50 states plus the District of Columbia since 1996, including a Status of Women North Carolina report in 2013, and a series of briefing papers for specific geographic areas within the state. *The Status of Women in the States* publications use data from the U.S. government and other sources to analyze women's status across multiple issue areas. These reports have been used to highlight women's progress and the obstacles they continue to face and to encourage policy and programmatic changes that can improve women's opportunities.

About the North Carolina Council for Women and Youth Involvement

The North Carolina Council for Women and Youth Involvement, a division of the North Carolina Department of Administration, was established in 1963. The state agency advises the Governor, state legislators, and leaders on issues that impact women and youth by: raising awareness of the impact of violence against women and directing available resources to serve victims in communities across the state; providing resources, training, and outreach to support anti-human trafficking efforts; collecting and distributing information about the status of women in North Carolina; acting as a resource for local and regional councils/commissions for women; collaborating with other groups and individuals working on behalf of women; assuring that necessary services, policies, and programs are provided to those in need and strengthening existing programs; monitoring and ensuring accountability of state grant funding to support services for domestic and sexual violence survivors; and enhancing the quality of life of children and youth through leadership development and experiential education.

About the Institute for Women's Policy Research

The Institute for Women's Policy Research (IWPR) conducts rigorous research and disseminates its findings to address the needs of women, promote public dialogue, and strengthen families, communities, and societies. IWPR's research strives to give voice to the needs of women from diverse ethnic and racial backgrounds across the income spectrum and to ensure that their perspectives enter the public debate on ending discrimination and inequality, improving opportunity, and increasing economic security for women and families. IWPR works with policymakers, scholars, and public interest groups to design, execute, and disseminate research and to build a diverse network of individuals and organizations that conduct and use women-oriented policy research. IWPR's work is supported by foundation grants, government grants and contracts, donations from individuals, and contributions from organizations and corporations. IWPR is a 501(c)(3) tax-exempt organization that also works in affiliation with the Program on Gender Analysis in Economics at American University.

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The Status of Women in North Carolina: Health & Wellness

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Acknowledgments

The authors are grateful to the North Carolina Council for Women and Youth Involvement, especially Mary Williams-Stover, Executive Director, and Emily Hagstrom, Information Communications Specialist & Research Analyst, for their input, guidance, and partnership. The North Carolina Council for Women Advisory Board provided valuable feedback throughout the process. The authors are also grateful to the following organizations for their assistance in reviewing the report: NC Council for Women Advisory Board, NC Department of Transportation, NC Commission of Indian Affairs, North Carolina Office of the Governor, Triangle Community Foundation, and NC Community Foundation.

This report would not have been possible without the generous funding provided by the North Carolina Department of Transportation. The NC Council for Women and Youth Involvement appreciates their support as well as the support of Planned Parenthood South Atlantic.

The authors thank the staff who contributed to the report. Dr. Cynthia Hess, Associate Director of Research, and Dr. Chandra Childers, Study Director, provided valuable input. Study Director Dr. Jessica Milli contributed to the data analysis. Research assistance was provided by Research Assistant Tessa Holtzman and Research Interns Camille Perrault and Kimberly McKee. Jennifer Clark, Director of Communications, and Nicolas Martinez, Communications Associate, oversaw the layout, design, and dissemination of the report.

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Introduction

Good health, access to health services, and the ability to live in a safe environment are critical to the economic security and overall well-being of North Carolina women. While poor health can negatively affect employment opportunities, educational attainment, and financial security, good health allows women to meet their economic and educational goals and flourish in the other areas of their lives. Multiple factors, including genetics, behavior, access to health care—including reproductive health care—access to healthy food, and quality and safe housing contribute to the health and wellness of women. This report provides information on the health, well-being, and reproductive rights of women in North Carolina, including differences by race and ethnicity and by county where data are available.

The Status of Women in North Carolina: Health & Wellness analyzes data on women's health, including chronic disease, physical health, sexual health, access to reproductive health services, and experiences of sexual assault and intimate partner violence. The report identifies changes in women's health since the publication of the Institute for Women's Policy Research's (IWPR) 2013 *Status of Women in North Carolina* report and concludes with recommendations for policymakers, public health officials, advocates, and philanthropists.

The Status of Women in North Carolina: Health & Wellness is the second in a series of four publications that provide data and policy recommendations to improve North Carolina women's status in several key areas. These reports describe trends over time and, whenever possible, variations among women by race and ethnicity. The first report in the series, *The Status of Women in North Carolina: Employment & Earnings,* was released in 2018. The third report will focus on factors related to women's economic security and economic opportunity, and the fourth on women's political participation. The series aims to provide critical data that can help build economic security and overall well-being among the state's women and serve as a resource that may be used to make data-driven decisions about how to shape public policies, prioritize investments, and set programmatic goals to improve the lives of women and families.

Key Findings

Health & Wellness Trends

- Among the 50 states and the District of Columbia, North Carolina ranks in the middle or bottom on indicators of health and wellness. North Carolina's best ranking is for heart disease mortality (27th out of 51) and its worst is for AIDS diagnoses (44th).

- Since the 2013 publication of the *Status of Women in North Carolina* report, health and wellness for women in North Carolina has improved in many areas. The mortality rate for heart disease, stroke, diabetes, breast cancer, uterine cancer, cervical cancer, and ovarian cancer all decreased among women in North Carolina. HIV/AIDS diagnoses and reported gonorrhea cases also decreased, but chlamydia rates increased.

Chronic Disease

- Among women in the United States, heart disease is the leading cause of mortality, at a rate of 131.9 per 100,000 women of all ages. The heart disease mortality rate for women in North Carolina is slightly lower than the national average at 124.9 per 100,000. Put another way, this means that approximately 6,658 women in North Carolina died of heart disease in 2018. Across North Carolina, heart disease mortality ranges from a low of 76.6 per 100,000 women in Chatham County to a high of 263.3 per 100,000 women in Columbus County.

- The diabetes mortality rate for women in North Carolina is slightly higher than the rate for women nationally (19.8 compared with 17.3 per 100,000).

- The breast cancer mortality rate for North Carolina women, 21.3 per 100,000 women of all ages, is slightly higher than the national breast cancer mortality rate of 20.5 per 100,000. Among the counties with reliable data, the breast cancer mortality rate is lowest in Haywood County (14.1 per 100,000) and highest in Martin County (33.1 per 100,000).

- While cervical cancer is the second most common type of cancer for women, mortality rates due to this cancer are relatively low (2.1 per 100,000 women). In North Carolina, 77 percent of women report having had a pap smear in the past three years.

- There are wide disparities in North Carolina women's disease mortality rates by race and ethnicity. For example, the heart disease mortality rate among Black women in North Carolina is 146.7 per 100,000, more than three times higher than the rate of Hispanic women, the racial and ethnic group with the lowest rate (48.2 per 100,000). Black women also have a rate of breast cancer mortality that is more than three times higher than the rate for Hispanic women, who have the lowest rate (28.8 compared with 9.4 per 100,000). Diabetes mortality rates also vary considerably, from 44.6 per 100,000 for Native American women to 9.9 per 100,000 for Hispanic women.

- The rate of women's HIV and AIDS diagnoses in North Carolina is higher than for women nationally. In 2016, the incidence of HIV in the United States was 5.5 per 100,000 women; 3.3 per 100,000 women received an AIDS diagnosis. In North Carolina, the incidence of HIV was 6.1 per 100,000 women, and 4.9 per 100,000 received an AIDS diagnosis.

- The rate of HIV and AIDS diagnoses also vary significantly by race and ethnicity in North Carolina. Black women are infected with HIV and AIDS at rates more than three times higher than Hispanic women, the racial and ethnic group with the next highest rate.

Sexual and Reproductive Health & Reproductive Rights

- Women in North Carolina are diagnosed with gonorrhea and chlamydia at higher rates than women nationally. Incidences of gonorrhea and chlamydia among women also vary widely by county: of the counties with available data, the rate of chlamydia diagnoses for women in the county with the highest incidence rate is nine times that of the county with the lowest rate.

- In 2016, the teenage pregnancy rate in North Carolina is 28.1 births per 1,000 women aged 15 to 19, which is higher than the national rate (20.3 per 1,000). The teen pregnancy rate in North Carolina has decreased by nearly seven percent since 2014.

- North Carolina has one of the highest infant mortality rates in the country, ranking 41st of 51 among all states and the District of Columbia. Women in North Carolina are also slightly more likely than women nationally to give birth to babies with a low birth weight (9.2 percent compared with 8.2 percent).

- In North Carolina, Black women are significantly more likely to have babies born with low birth weight (14.2 percent). Black women also have a higher infant mortality rate (12.2 deaths per 1,000 live births) than women of all other racial and ethnic groups.

- Reproductive rights – having the ability to decide whether and when to have children – are essential to the social and economic well-being and overall health of women. More than 43 percent of North Carolina women aged 15 to 44 live in a county without an abortion provider. Additionally, North Carolina requires women who seek an abortion to attend a mandated counseling session designed to discourage abortion and to wait 72 hours after the session before obtaining an abortion.

Mental Health

- In both North Carolina and the United States overall, women report having an average of 4.2 days per month on which their mental health is not good. Native American women in North Carolina report having the most days of poor mental health in a month (7.5), while Asian and Pacific Islander women have the least (1.5).

- Women are less likely to commit suicide than men but three times as likely to attempt suicide nationally. In North Carolina, the suicide mortality rate for women is 6.3 per 100,000, with White women almost twice as likely to commit suicide as Asian and Pacific Islander women, the group with the next highest rate (8.4 compared with 4.5 per 100,000).

Violence Against Women

- In North Carolina, 35 percent of women have experienced at least one type of intimate partner violence (IPV) or sexual violence in their lifetime. Additionally, 32.3 percent report experiencing physical violence, 18.9 percent have been raped, and 13 percent have experienced another form of sexual violence. More than 35 percent of women in North Carolina report having experienced some form of aggression or control by an intimate partner in their lifetime.

- Intimate partner violence has numerous negative impacts on women. Eighty-one percent of women in North Carolina report experiencing at least one negative outcome from their experience with IPV: more than half of survivors reported being fearful (59.6 percent), experiencing concern for their safety (57 percent), and developing PTSD symptoms (55.5 percent). Almost half reported

they were physically injured at least once (40.9 percent) and 13.1 percent needed medical care for their injuries.

- North Carolina is home to 103 domestic violence programs that serve survivors and provide training, technical assistance, and legal advocacy to help end domestic violence in the state. In the 2017-2018 fiscal year, North Carolina domestic violence programs served a total of 52,187 people across the 103 programs. Eighty-four percent of the individuals served were women.

Policy Recommendations

North Carolina women's health and wellness has improved in some ways, yet not all women are equally benefitting from this progress. Wide disparities persist in the health of women by race and ethnicity, as well as by geography. Policymakers, public health officials, advocates, and philanthropists can use multiple strategies to improve health and reduce health inequities among women in North Carolina. These strategies include the following recommendations:

- Closing the health insurance coverage gap for people who do not qualify for Medicaid or for subsidies on the Health Insurance Marketplace (a group comprised mostly of people who are working and are female). This could include actions such as accepting federal funds to expand Medicaid eligibility and increasing access to programs that help cover other health related costs not paid for by Medicaid.

- Increasing women's access to health care and preventative services, including screening and testing to promote early detection of illness or disease and increasing access to health care providers, particularly in rural areas.

- Increasing women's earnings by raising the minimum wage and improving their economic security by enacting policies such as paid family leave and paid medical leave and paid sick and safe days. These policies would especially help women of color, who disproportionately work in low-wage jobs that are less likely to provide employment benefits.

- Addressing disparities in health outcomes among women from different racial, ethnic, and socioeconomic groups. Interventions and investments aimed at preventing and treating diseases affecting women in North Carolina can be designed with cultural sensitivity and targeted to the most affected racial and ethnic groups and to counties where the need is greatest.

- Ensuring that women have access to reproductive health services and rights to enable them to make health care decisions and determine the timing and size of their family. North Carolina can enhance women's reproductive rights by eliminating barriers that make it difficult for women to access contraception and abortion and to obtain the full range of reproductive health services and information they need.

- Increasing enforcement of existing policies to promote women's safety and enacting new statutes that can help to ensure that women live free from violence, harassment, stalking, and abuse. North Carolina can continue to take steps such as continuing to support funding streams that provide essential services and supports for domestic violence victims and raising awareness about sexual and dating violence and strategies for addressing it.

- Improving North Carolina's data collection on health and wellness indicators. Ensuring more collection of and public access to data at the county level, especially on women's experiences with violence and abuse, would help researchers and policymakers develop a more complete understanding of the challenges women face and solutions to address them

Health & Wellness

Introduction

Good health is a critical component of economic security and the overall well-being of North Carolina women. While poor health can negatively impact one's employment opportunities, educational attainment, and financial circumstances, good health allows women to meet their economic and educational goals and flourish in the other areas of their life. Economic security and jobs with quality health insurance also allow women to access the preventative care they need to stay healthy and promptly treat any health concerns that may arise. Health and wellness and economic security, therefore, are closely intertwined.

Multiple factors, including genetics, behavior, access to health care, access to healthy food, and quality and safe housing, contribute to the health and well-being of women. While women cannot always control or predict when a health concern will arise, being able to access the resources they need – whether that be cancer screenings or treatment, reproductive health care, treatment for alcohol or drug addiction, or mental health services – is crucial to their health and wellness throughout their lives. Understanding the health challenges that women currently face is also crucial to ensuring that women have access to the health care they need. While there is data at the state and county level on indicators of health and wellness, there are still many gaps in the data, including data by gender and race at the county level. This report provides information on the health and wellness of women in North Carolina and examines differences by race and ethnicity and by county where available.

The Status of Women in North Carolina: Health & Wellness is the second in a series of four publications that presents data and provides recommendations for policies to improve the status of women in North Carolina in several key areas. The first publication, *The Status of Women in North Carolina: Employment & Earnings*, examines women's median annual earnings, the gender wage ratio, women's labor force

participation rate, and the share of employed women in managerial or professional occupations. The third report, *Poverty & Opportunity*, will focus on women's economic security and access to opportunity including access to education and entrepreneurship. The final report, *Political Participation*, will analyze women's participation in voting and representation in elected offices at every level of government.

As a resource for advocates, philanthropists, policymakers and other stakeholders, *The Status of Women in North Carolina* series provides the research and analysis necessary to make data-driven decisions about how to prioritize investments, programs, and public policies.

Health & Wellness: How Women in North Carolina Fare Compared with Other States

Previous IWPR research that ranked and graded the 50 states and the District of Columbia on women's status on IWPR's health and well-being composite index found that North Carolina ranked 40th (out 51) and received a grade of D (Anderson and McLean 2018).[1] This report explores the health and well-being of North Carolina's women through detailed analysis of data on chronic disease mortality rates, sexual and reproductive health, reproductive rights, and violence and safety. Relative to other states in the United States, North Carolina ranks consistently in the middle or bottom nationally the data points considered (Table 1).

- North Carolina's best rankings are for heart disease mortality (ranking 27th out of 51) and breast cancer mortality (29th).
- North Carolina ranks 40th for diabetes mortality (at 19.8 deaths per 100,000 women), above the neighboring state of Virginia and below Kentucky, South Carolina, and Tennessee.
- North Carolina fares poorly when it comes to stroke mortality (42nd out of 51), AIDS diagnoses (44th), and sexually transmitted infections: nationally, North Carolina ranks 42nd for incidences of gonorrhea and 43rd for incidences of chlamydia.
- On infant mortality, North Carolina ranks 41st in the nation at 7.2 deaths per 1,000 live births (Appendix Table 7). Additionally, North Carolina ranks 43rd for low birth weight babies, with a rate of 9.2 per 1,000 live births (Appendix Table 9).

[1] Indicators in the health and well-being composite index include heart disease mortality, lung cancer mortality, breast cancer mortality, incidence of diabetes, rate of reported cases of chlamydia, incidence of AIDS, poor mental health, suicide mortality, and limited activities.

Table 1. How North Carolina Measures Up against Other States: Women's Health and Wellness

	Heart Disease Mortality		Stroke Mortality		Diabetes Mortality		Breast Cancer Mortality		Reported Cases of Chlamydia		Reported Cases of Gonorrhea		Incidence of AIDS	
	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank
Alabama	182	49	48.3	51	13.8	6	21.9	38	855.4	47	186.9	48	3.9	39
Alaska	110	8	32.6	10	14.7	10	19.5	15	1096.8	50	156.2	44	1.4	18
Arizona	107.1	6	29.9	7	11.8	3	19.3	13	670.7	36	95.3	29	1.6	21
Arkansas	175.2	48	45.8	49	27	50	21.7	36	780.2	44	157.8	46	2.4	31
California	112.2	11	34.8	21	15.8	16	20.2	25	593.5	27	75.1	18	1.6	21
Colorado	100.6	3	35.4	22	11.4	1	18.9	10	571.3	21	50.1	12	1.3	14
Connecticut	115.6	15	26	3	18.8	34	18.1	4	510.2	13	66.6	16	2.7	33
Delaware	129.7	28	39.3	36	21.1	44	21.4	31	698.6	39	136.7	40	4.8	43
District of Columbia	162	45	36.2	26	16.5	21	29.3	51	1196.3	51	277.9	51	18.3	51
Florida	115.1	14	35.4	22	18.9	35	19.6	16	573.3	22	95.5	30	7.6	48
Georgia	143.7	37	42.8	44	18.5	31	22	41	725.2	41	140.8	41	6.5	47
Hawaii	95.1	2	34.1	18	21.5	46	16.5	1	652.5	33	43.9	11	0.7	5
Idaho	123.6	23	35.6	24	15.1	12	20.2	25	456.4	7	14.4	4	0.2	2
Illinois	133.6	32	36.7	29	11.7	2	22.1	44	716.2	40	132.1	39	2.4	31
Indiana	143.1	36	39.3	36	25.7	49	21.2	30	626.0	28	117.7	34	1.9	28
Iowa	124.7	25	32.9	12	12.2	4	19.1	12	524.8	15	61.0	15	0.8	8
Kansas	123.6	23	37.5	31	14.6	9	20	21	575.0	24	92.4	26	1.2	13
Kentucky	157.1	43	39.9	39	18	28	21.5	33	551.2	18	103.6	31	1.5	20
Louisiana	169.4	47	44	47	16.2	19	23.5	50	891.6	48	212.9	50	8.6	50
Maine	117.6	17	33.4	16	18.4	30	18.2	6	358.8	2	22.5	5	0.8	8
Maryland	131.2	30	38	34	19.2	38	22.3	46	629.0	29	93.1	27	7.9	49
Massachusetts	107.2	7	28.3	5	16.8	24	18.1	4	447.3	6	33.5	9	2.7	33
Michigan	160.6	44	37.7	33	14.2	8	21.5	33	649.0	31	120.4	36	1.9	28
Minnesota	88	1	32.5	9	17.4	27	18.4	9	477.9	9	67.6	17	1.8	26
Mississippi	187.1	50	47.1	50	15.8	16	23.4	49	942.9	49	207.1	49	6.4	46
Missouri	155	41	40	40	14.7	10	21.9	38	634.8	30	127.5	37	1.8	26
Montana	118.3	18	34.6	20	16.5	21	20	21	545.0	16	26.9	7	0.7	5
Nebraska	113.8	12	32.4	8	15.7	15	20.4	28	522.4	14	80.0	20	1.3	14
Nevada	151.6	40	35.9	25	27.9	51	22	41	576.5	25	84.1	24	3.2	38
New Hampshire	116.7	16	27.1	4	20.8	41	19.6	16	338.1	1	10.2	1	0.5	4
New Jersey	132.7	31	29.7	6	12.5	5	22	41	458.3	8	75.9	19	4.7	42
New Mexico	111.3	9	33.2	15	21.4	45	18.3	8	828.6	46	83.7	23	0.8	8

Table 1. Continuted

	Heart Disease Mortality		Stroke Mortality		Diabetes Mortality		Breast Cancer Mortality		Reported Cases of Chlamydia		Reported Cases of Gonorrhea		Incidence of AIDS	
	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank
New York	145.7	38	24.7	1	19.2	38	19.6	16	652.9	34	82.9	22	5.0	45
North Carolina	**124.9**	**27**	**42.1**	**42**	**19.8**	**40**	**21.3**	**29**	**740.6**	**43**	**155.0**	**42**	**4.9**	**44**
North Dakota	111.7	10	32.9	13	18.6	33	17.5	2	573.3	23	85.0	25	1.3	14
Ohio	148.4	39	39.8	38	18.2	29	22.6	47	655.6	35	155.8	43	1.7	25
Oklahoma	188.7	51	42.3	43	20.8	41	22.7	48	692.8	38	156.6	45	1.6	21
Oregon	104.6	5	36.6	28	18.9	35	20.1	23	503.4	11	31.7	8	0.9	11
Pennsylvania	140.2	35	36.7	29	14	7	21.5	33	548.0	17	110.9	32	2.9	37
Rhode Island	122.2	20	25.5	2	15.1	12	18.2	7	564.0	19	39.5	10	1.9	28
South Carolina	137	34	43.9	46	15.3	14	21.7	36	821.0	45	177.3	47	4.6	41
South Dakota	114.5	13	36.5	27	16.2	19	19	11	679.6	37	116.8	33	1.6	21
Tennessee	162.8	46	44.7	48	17.1	26	22.1	44	652.2	32	118.0	35	2.8	36
Texas	133.6	33	41.3	41	19.1	37	20.1	23	731.0	42	130.0	38	4.1	40
Utah	130.6	29	39	35	16.9	25	20.3	27	362.8	3	24.9	6	0.5	3
Vermont	122.8	22	32.7	11	18.5	31	19.3	13	444.1	5	14.2	3	1.1	12
Virginia	122.3	21	37.5	31	22.6	48	21.4	31	577.9	26	93.7	28	2.7	33
Washington	104.4	4	34.5	19	22.2	47	19.6	16	507.2	12	52.1	14	1.4	18
West Virginia	155.8	42	42.8	45	20.9	43	21.9	38	368.6	4	51.0	13	1.3	14
Wisconsin	121.1	19	33.9	17	16.7	23	19.6	16	568.3	20	82.4	21	0.7	5
Wyoming	124.8	26	32.9	14	15.8	16	17.7	3	496.1	10	14.0	2	0.1	1
United States	**131.9**		**36.3**		**17.3**		**20.5**		**628.3**		**103.6**		**3.3**	

Notes: Data on heart disease and stroke are from 2014-2016, data on diabetes are from 2012-2016, and breast cancer mortality are from 2013-2015 and include women of all ages; reported cases of chlamydia and gonorrhea are from 2013-2015 and include women of all ages; and data on AIDS diagnoses are from 2016 and include women aged 13 and older. See Methodology for more information.
Source: IWPR compilation of data from the Centers for Disease Control and Prevention (2017d)

Health & Wellness Trends

Since the 2013 publication of the *Status of Women in North Carolina* report, health and wellness for women in North Carolina has improved in some areas and stayed the same or worsened in others. The mortality rate for heart disease, stroke, diabetes, breast cancer, uterine cancer, cervical cancer, and ovarian cancer decreased among North Carolina women. North Carolina women's incidence of AIDS diagnoses and reported gonorrhea cases also declined, while HIV incidence and chlamydia rates increased. Despite improvements in some outcomes related to the health and wellness of North Carolina women, North Carolina still tends to rank in the middle or at the bottom nationally, and disparities among women by race and ethnicity also persist.

- Between 2009 and 2016, heart disease mortality among North Carolina women overall decreased by 18.8 percent (from 153.6 to 124.9 deaths per 100,000 women). Heart disease mortality decreased across all racial and ethnic groups except Hispanic women, whose rate increased from 44.4 to 48.2 deaths per 100,000. Despite this increase, Hispanic women in North Carolina still have a lower heart disease mortality rate than women from all other racial and ethnic groups.

- North Carolina women's stroke mortality rate overall decreased by 16.7 percent (from 50.4 to 42 deaths per 100,000) between 2009 and 2016. Stroke mortality rate increased among Hispanic and Asian and Pacific Islander women in North Carolina and decreased for White, Black, and Native American women.

- North Carolina women's diabetes mortality rate decreased by 4.8 percent (from 20.8 to 19.8 deaths per 100,000). Despite the decline, large disparities persist by race and ethnicity (see Figure 2).

- Breast cancer mortality among North Carolina women overall decreased by 9.4 percent (from 23.5 to 21.3 deaths per 100,000). White, Black, and Native American women experienced a decline in their breast cancer mortality rate, but Hispanic and Asian/Pacific Islander women experienced an increase. The breast cancer mortality rate for Black women in North Carolina is significantly higher than for women of other racial and ethnic groups (see Figure 3). The share of women in North Carolina who report having had a mammogram in the past two years increased from 75 percent in 2009 to 80 percent in 2016.

- North Carolina women's mortality rates due to cervical cancer, uterine cancer, and ovarian cancer have also declined since 2009.

- HIV and AIDS incidence rates and the rate of reported cases of gonorrhea decreased among North Carolina women between 2009 and 2016 (9.0 to 6.1 per 100,000 women for HIV diagnoses, 6.2 to 4.9 per 100,000 women for AIDS diagnoses, and 170.5 to 155 per 100,000 for gonorrhea cases). The rate of reported cases of chlamydia, however, increased (from 693.7 to 740.6 per 100,000 women).

- Between 2009 and 2016, the fertility rate among North Carolina women declined from 62.7 to 60.7 per 1,000 women. Birth rates among teenagers aged 15 to 19 declined by 43.5 percent, from 49.7 to 28.1 live births per 1,000.

Health Insurance

Health insurance gives women access to health services that contribute to their overall health and well-being. In North Carolina, 87 percent of women aged 18 and older are covered by either public or private health insurance, leaving 13 percent uninsured (American Community Survey 2017). This is slightly lower than the United States overall, where 90 percent of women are covered by health insurance, leaving 10 percent uninsured (Cohen, Terlizzi, and Martinez 2019). Thirty-three percent of women in North Carolina use some form of public health insurance[2] (American Community Survey 2017) compared with 26.9 percent of women in the United States (Cohen, Terlizzi, and Martinez 2019).

One way to ensure that women have access to critical health resources is to close the health insurance coverage gap, which could include expanding Medicaid coverage. Studies show that Medicaid coverage is associated with a range of positive health behaviors and outcomes, including: increased access to care; improved self-reported health status; higher rates of preventive health screenings; lower likelihood of delaying care because of costs; decreased hospital and emergency department utilization; and decreased infant, child, and adult mortality rates (Antonisse et al. 2018).

Chronic Disease

Heart Disease

Of all the women who die in the United States annually, almost one quarter die from heart disease (Centers For Disease Control and Prevention 2015). Key heart disease risk factors include high blood pressure, high cholesterol, and smoking. Nearly half (47 percent) of all adults nationally have at least one of these three risk factors (Fryar, Chen, and Li 2012). These risk behaviors are more common among those who earn lower incomes. One study found that risk factors are related to socioeconomic status: as family income increased, adolescents were less likely to smoke cigarettes, to be sedentary, and to engage in heavy drinking (Lowry et al. 1996). In addition, women are at a higher risk than men for certain forms of heart disease—such as coronary microvascular disease (in which the walls of the heart's tiny arteries are damaged or diseased) and stress-induced cardiomyopathy (in which emotional stress leads to severe, but often temporary, heart muscle failure; U.S. Department of Health and Human Services 2014). In the United States and in North Carolina, Black women have the highest rate of heart disease mortality among women of all races and ethnicities (Appendix Table 4).

- In North Carolina, almost 125 of every 100,000 women die from heart disease each year (Table 1). This is a lower rate than the heart disease mortality rate for women in the United States at 132 per 100,000 women. Put another way, this would mean that approximately 6,658 women in North Carolina died as a result of heart disease in 2018.[3]

- The counties in North Carolina with the lowest heart disease mortality rates include Chatham County (76.6 per 100,000), Transylvania County (95.5), Wake County (99.6), Orange County (102.4) and Jackson and Durham counties (both 102.6; Map 1 and Appendix Table 1).

[2] Public insurance includes federal programs such as Medicare, Medicaid, and CHIP; state plans such as Tricare and the Civilian Health and Medicaid Program of the Department of Veterans Affairs; and care provided by the Department of Veterans Affairs and the military.

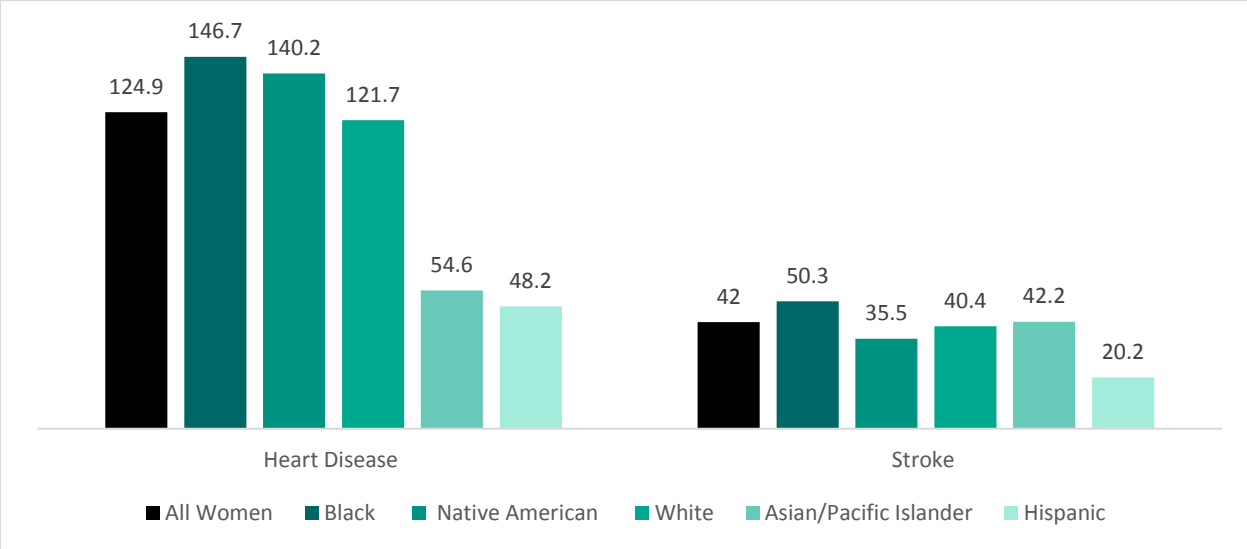
[3] Calculated using the U.S. Census Bureau's 2018 population estimates for North Carolina (https://www.census.gov/quickfacts/nc).

- The counties with the highest heart disease mortality rates for women are Columbus County (263.3 deaths per 100,000), Bladen County (210.4), Pasquotank County (210.1), Anson County (201.7), and Richmond County (197.1).

- The rate of heart disease mortality in the lowest ranking county, Columbus County (263.3 deaths per 100,000), is more than three times the rate of the highest ranking county, Chatham county (76.6; Appendix Table 1).

- The heart disease mortality rate for all women in North Carolina is 124.9 per 100,000. Black women have the highest rate at 146.7 per 100,000, followed closely by Native American women (140.2 per 100,000), and White women (121.7 per 100,000). Hispanic and Asian/Pacific Islander women in North Carolina have by far the lowest rates (48.2 and 54.6 per 100,000, respectively; Figure 1).

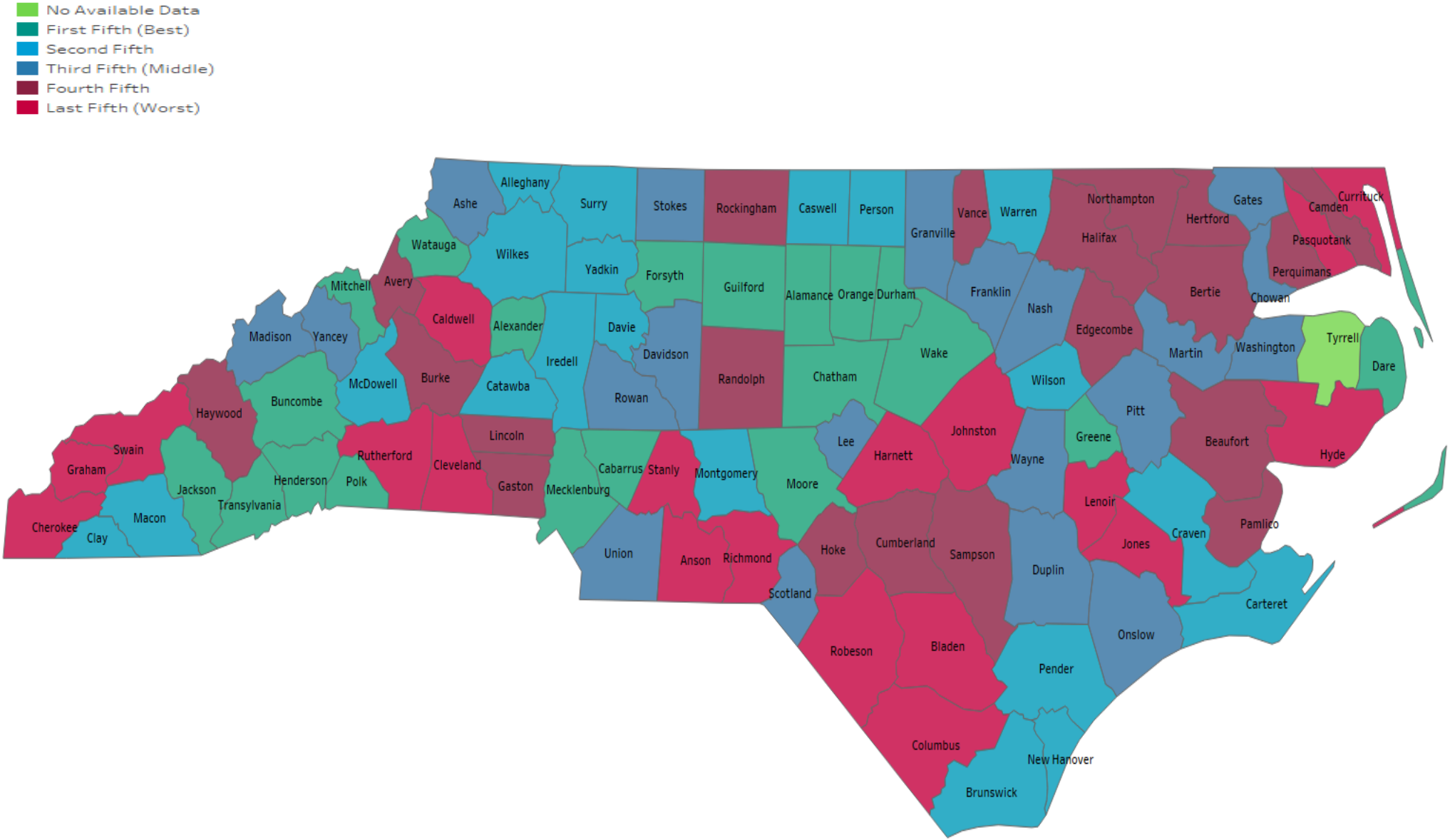
Figure 1. Heart Disease and Stroke Mortality Rates Among North Carolina Women by Race and Ethnicity, 2016



Notes: Data are from 2014-2016. Mortality rates are average annual rates per 100,000 population, include women of all ages, and are age adjusted to the 2000 U.S. standard population. Racial groups are non-Hispanic.
Source: IWPR compilation of data from the Centers for Disease Control and Prevention (2017d).

Black women in North Carolina are more likely than women of other races and ethnicities to die due to heart disease and stroke.

Map 1. Heart Disease Mortality Rates Among Women, North Carolina Counties, 2016



Notes: Data are from 2012-2016. Mortality rates are average annual rates per 100,000 population, include women of all ages, and are age-adjusted to the 2000 U.S. standard population.
Source: IWPR compilation of data from the Centers for Disease Control and Prevention, National Center for Health Statistics (2017d).

Stroke Mortality

Stroke accounts for just over five percent of all American deaths each year (Centers for Disease Control and Prevention 2017). The likelihood of a stroke, however, varies widely by race and ethnicity and age: the risk of experiencing a stroke is nearly twice as high for Black women and men as it is for White women and men, and the risk of stroke increases as one ages (Benjamin et al. 2017). Additionally, Kapral and colleagues (2002) found an increase in median income was associated with decreased risk of death after stroke. Women in both the United States and North Carolina are more likely to die of a stroke than men; women in North Carolina have a higher stroke mortality rate than women nationally (Table 1).

- The stroke mortality rate for women in North Carolina women is 42.1 deaths per 100,000, while stroke mortality rate for women in the United States is 36.3 deaths per 100,000. Put another way, this means that in 2018 approximately 2,243 women in North Carolina died as a result of having a stroke.[4]

- Of the counties where data was available, stroke mortality rates for women vary widely. Edgecombe County, the county with the highest stroke mortality for women (88.8 deaths per 100,000), has a mortality rate more than three times higher than Watauga County, the county with the lowest stroke mortality for women (27.7 deaths per 100,000; Table 2).

- Among women in North Carolina, Black women have the highest rate of stroke mortality (50.3 per 100,000), followed by Asian/Pacific Islander women (42.2 per 100,000) and White women (40.4 per 100,000). Native American and Hispanic women have the lowest mortality rate from stroke (35.5 and 20.2 per 100,000, respectively; see Figure 1).

Table 2. Best and Worst Counties for Stroke Mortality, North Carolina, 2016

Best Counties	**Rate per 100,000**
Watauga County	27.7
Jackson County	27.9
Ashe County	28.3
Orange County	28.7
Wilkes County	28.8
Worst Counties	
Richmond County	59.9
Wayne County	61.2
Stokes County	69.8
Greene County	72.5
Edgecombe County	88.8

Notes: Data are from 2012-2016. Mortality rates are average annual rates per 100,000 population, include women of all ages, and are age-adjusted to the 2000 U.S. standard population.
Source: IWPR compilation of data from the Centers for Disease Control and Prevention (2017d).

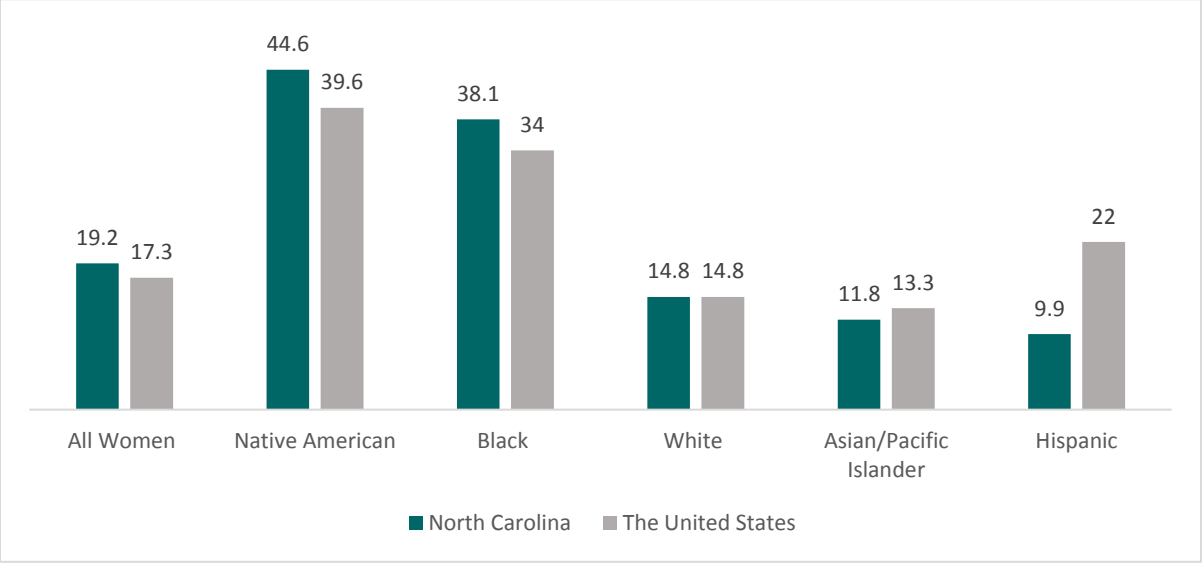
[4] Calculated using the U.S. Census Bureau's 2018 population estimates for North Carolina (https://www.census.gov/quickfacts/nc).

Diabetes

Diabetes results from high levels of blood sugar (National Institute of Diabetes and Digestive and Kidney Diseases 2016). Risk factors for getting the disease include a family history of diabetes, physical inactivity, and lower socioeconomic status, among others (Dalsgaard et al. 2015; National Institute of Diabetes and Digestive and Kidney Disease 2016). Diabetes can considerably increase the risk for heart disease, stroke, blindness, kidney disease, and other serious health conditions (NIDDKD 2016). In 2016, diabetes was reported as the seventh leading cause of death in the United States (Xu et al. 2018). In the United States overall, the diabetes mortality rate is lower for women (17.3 per 100,000) than for men (27.5 per 100,000).

- The diabetes mortality rate for women in North Carolina in 2016 was 19.8 per 100,000 women, compared with 27.9 per 100,000 for men in the state.
- Bertie (53.9 deaths per 100,000), Swain (51.4), Sampson (47), Richmond (43.7), and Hertford (42.3) counties have the highest diabetes mortality rates. Counties with the lowest rates include, Henderson (7.7), Moore (8.1), Union (12.8), Brunswick (13.1), Davie (13.4), and Mecklenburg (13.6; Appendix Table 1).
- Diabetes mortality rates also vary widely by race and ethnicity in North Carolina and nationally. In North Carolina, Black and Native American women have higher diabetes mortality rates (38.1 and 44.6 per 100,000, respectively) than their White (14.8), Hispanic (9.9), or Asian/Pacific Islander counterparts (11.8; Figure 2).

Figure 2. Diabetes Mortality Rates Among Women by Race and Ethnicity, North Carolina and United States, 2016



Notes: Data are from 2014-2016. Mortality rates are average annual rates per 100,000 population, include women of all ages, and are age-adjusted to the 2000 U.S. standard population. Racial categories are non-Hispanic.
Source: IWPR compilation of data from the Centers for Disease Control and Prevention (2017d).

Native American and Black women have the highest diabetes mortality rates in North Carolina and the United States.

HIV/AIDS

At the end of 2016, the Centers for Disease Control and Prevention (CDC) estimated that 1.1 million people in the United States had HIV, and of those one in seven did not know they were infected (Centers for Disease Control and Prevention 2018b). HIV infection rates differ by geographic location, race, and other variables. Although men are the majority of those newly diagnosed with AIDS and HIV in the United States, women – especially women of color – are disproportionally affected by HIV/AIDS. Additionally, while the southern region of the United States has the highest number of people living with HIV, when population is taken into account, the northeast has the highest rate of people living with HIV (Centers for Disease Control and Prevention 2018b).

- The HIV and AIDS incidence rates for women in North Carolina are higher than incidence rates for women in the United States. In 2016 the HIV incidence rate for women in North Carolina was 6.1 per 100,000 compared with 5.5 per 100,000 for women nationally. The AIDS incidence rate for women in North Carolina was 4.9 per 100,000 and 3.3 per 100,000 women nationally (Appendix Table 7).

- In both the Unites States and North Carolina, Black women are infected with HIV and AIDS at disproportionally higher rates than all other groups of women (Appendix Table 7). Black women in North Carolina, however, are diagnosed with HIV at lower rates than in the United States overall: in the United States the HIV incidence rate for Black women is 26.3 per 100,000, compared with 19.8 per 100,000 in North Carolina.

- Fifty-two counties in North Carolina do not have recorded data for AIDS incidence rate. Of the counties that have available data, the county with the highest AIDS rate, Jones County, has a rate 14 times that of the counties with the lowest AIDS rate, Brunswick and Randolph counties (Appendix Table 2).

Cancer

While the nation has made considerable progress in the prevention, detection, and treatment of certain forms of cancer in recent decades, cancer is still the second leading cause of death in the United States: one in four deaths in the nation is due to cancer (American Cancer Society 2019). Cancer is also the second leading cause of death for all women in the United States (Centers for Disease Control and Prevention 2015). Mortality rates for women, however, vary widely by type of cancer.

Breast Cancer

In the United States, approximately 12.5 percent of women will be diagnosed with breast cancer in their lifetime, making it the most commonly diagnosed cancer for women (National Breast Cancer Foundation 2016). Breast cancer is also the second leading cause of cancer death among women. It is estimated that of the 252,710 women in the United States who will be diagnosed with breast cancer this year, more than 40,500 will die from it (National Breast Cancer Foundation 2016). Women can scan for early signs of cancer or pre-cancers by getting a mammogram – an x-ray of the breast. In North Carolina, 80 percent of women report having had a mammogram in the last two years (Appendix Table 12).

- In North Carolina the breast cancer mortality rate for women in 2015 was 21.3 deaths per 100,000, similar to women in the United States (20.5 deaths per 100,000).

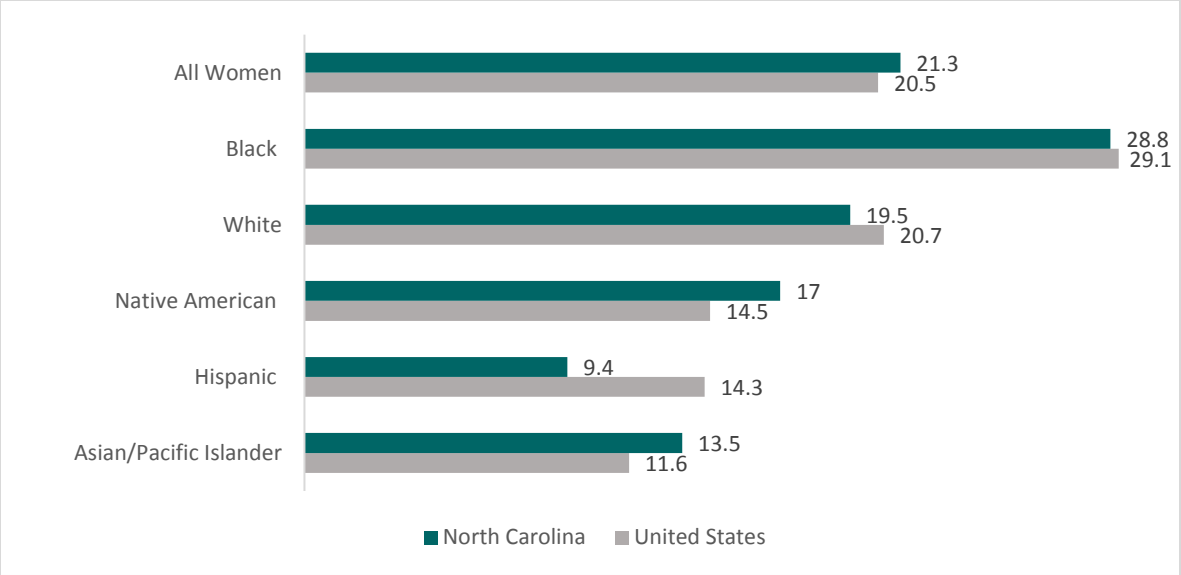
- The mortality rate from breast cancer, however, varies widely by race and ethnicity in North Carolina. The mortality rate is highest for Black (28.8 per 100,000), White (19.5 per 100,000), and

Native American women (17 per 100,000). Asian/Pacific Islander and Hispanic women have the lowest mortality rates from breast cancer (13.5 and 9.4 per 100,000, respectively; Figure 3).

- In North Carolina, the three counties with the highest rate of breast cancer mortality are Martin County (33.1 per 100,000), Northampton County (31.7 per 100,000), and Nash County (31.1 per 100,000).

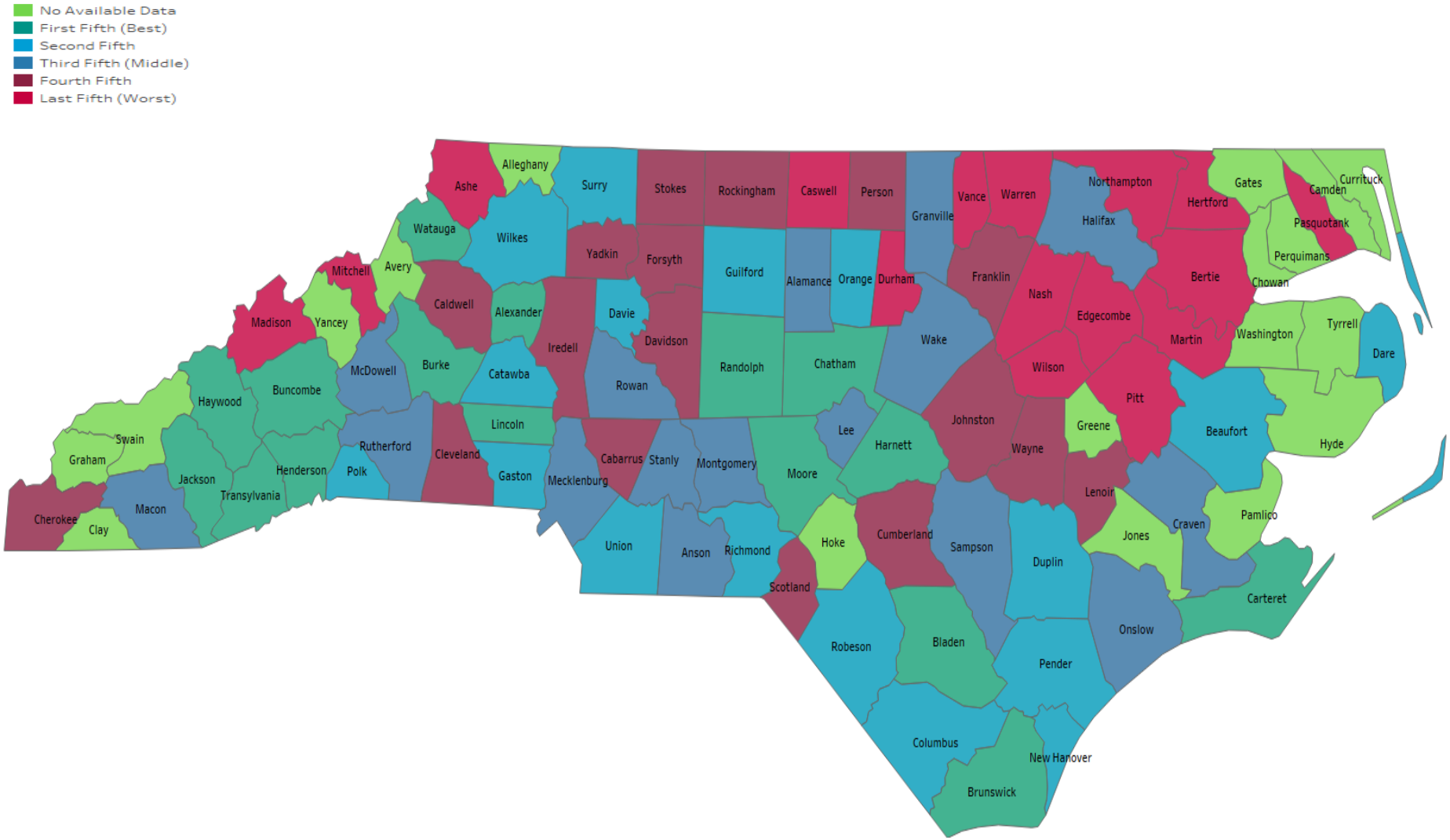
- The county with the lowest breast cancer mortality rate, Haywood County (14.1 per 100,000 women) has a rate more than half that of the county with the highest rate (Martin County; Appendix Table 1).

Figure 3. Breast Cancer Mortality Rates by Race and Ethnicty, North Carolina and United States, 2015



Notes: Data are from 2013-2015. Mortality rates are average annual rates per 100,000 population, include women of all ages, and are age-adjusted to the 2000 U.S. standard population. Racial categories are non-Hispanic.
Source: IWPR compilation of data from the Centers for Disease Control and Prevention (2017d).

Map 2. Breast Cancer Mortality Rates Among Women, North Carolina Counties, 2015



Notes: Data are from 2011-2015. Mortality rates are average annual rates per 100,000 population, include women of all ages, and are age-adjusted to the 2000 U.S. standard population.
Source: IWPR compilation of data from the Centers for Disease Control and Prevention (2018c).

Cervical Cancer

Cervical cancer is the second most common type of cancer for women worldwide (Stoller 2017). Women of all ages are at risk of cervical cancer. While the number of new cervical cancer cases has declined over the past decades, in 2016 an estimated 13,000 women were diagnosed with invasive cervical cancer in the United States and more than 4,000 women will die as a result of this diagnosis (American Cancer Society 2019a). One way for women to detect cervical cancer at an early stage is by getting a pap smear every three years (or as often as recommended by the American College of Obstetrics and Gynecology). Pap smear tests looks for pre-cancer cells, cell changes on the cervix that might become cervical cancer if they are not treated appropriately. In 2016, 77 percent of women in North Carolina reported having had a pap smear in the past three years (Appendix Table 11). The cervical cancer mortality rate for women in North Carolina was 2.1 deaths per 100,000 in 2015, similar to the rate for women in the United States as a whole (2.3 per 100,000; Appendix Tables 3 and 4).

- While the cervical cancer mortality rate is relatively low compared with other types of cancers, the mortality rates vary by race and ethnicity. Black women have a higher rate of mortality from cervical cancer both in North Carolina (3.3 per 100,000) and nationally (3.7 per 100,000) than White women (1.9 per 100,000 in North Carolina and 2.1 per 100,000 in the United States; Appendix Tables 3 and 4).

- Data on mortality rates due to cervical cancer are only available for seven counties in North Carolina: Buncombe, Cumberland, Forsyth, Gaston, Guilford, Mecklenburg, and Wake. Of those counties, Cumberland County and Gaston County have the highest mortality rate for cervical cancer (3.3 deaths per 100,000). Guilford County has the lowest rate of cervical cancer mortality (1.4 deaths per 100,000; Appendix Table 1).

Ovarian Cancer

It is estimated that 1 in 78 women will get ovarian cancer in their lifetime. Ovarian cancer is one of the top five leading causes of death by cancer among women (American Cancer Society 2019b); it causes more deaths than any other cancer of the female reproductive system (Centers for Disease Control and Prevention 2018). Cases of ovarian cancer increase with age, and White women are the most likely to be newly diagnosed with ovarian cancer (American Cancer Society 2019b).

- In 2016, the mortality rate from ovarian cancer for women in the United States was 7 per 100,000. In North Carolina, the ovarian cancer mortality rate was slightly lower, at 6.7 per 100,000 (Appendix Tables 3 and 4).

- White women are more likely to die from ovarian cancer than women of any other race or ethnicity both in North Carolina and nationally. The ovarian cancer mortality rate for White women is 7 per 100,000 in North Carolina and 7.5 per 100,000 in the United States, which is higher than the rate for Black women (6.4 per 100,000 in North Carolina and 6.4 per 100,000 in the United States; Appendix Tables 3 and 4).

- Of the North Carolina counties with available data, Cherokee County (13.5 deaths per 100,000), Person County (12.1 deaths per 100,000), and Lenoir County (10.2 deaths per 100,000) are the three counties with the highest ovarian cancer mortality rates in the state (Appendix Table 1).

- Cherokee County, the county with the highest ovarian cancer mortality rate, has a mortality rate over three times that of Craven County (4.3 deaths per 100,000), the county with the lowest ovarian cancer mortality rate in North Carolina (Appendix Table 1).

Uterine Cancer

It is estimated that approximately 3.1 percent of women in the United States will be diagnosed with uterine cancer at some point during their lifetime (National Cancer Institute 2018).

- In 2016, the mortality rate from uterine cancer for women in North Carolina was 2.3 per 100,000, slightly lower than for women in the United States overall (2.7 per 100,000; Appendix Tables 3 and 4).

- Black women are more likely to die from uterine cancer than women of other races both in North Carolina and nationally. The mortality rate from uterine cancer for Black women in North Carolina is 4.3 per 100,000 compared with 1.8 per 100,000 for White women. The uterine mortality rate for Black women nationally is 5.2 per 100,000, twice as high as the mortality rate for White (2.4) and Hispanic women (2.5; Appendix Tables 3 and 4).

- Of the North Carolina counties with available data, women in Davidson County (3.1 per 100,000), Alamance County (3.2 per 100,000), and Catawba County (3.5 per 100,000) have the lowest mortality rates from uterine cancer (Appendix Table 1).

- Vance County, Lenoir County, and Wayne County have the highest uterine cancer mortality rates. The mortality rate from uterine cancer in Vance County, the worst county for uterine cancer mortality, is three times as high as Davidson County, the best county for uterine cancer mortality (10 per 100,000 compared with 3.1 per 100,000; Appendix Table 1).

Spotlight On: Health & Wellness of Older Women

The United States population is aging: the share of the population over the age of 65 has been increasing and is projected to continue to increase in both North Carolina and the United States. The United States Census Bureau estimates that by the year 2035, those aged 65 and older will outnumber children for the first time in U.S. history (U.S. Census Bureau 2018). As women age, they increasingly experience health issues and often do not have a spouse or relative who can provide the care they need, in part because women have a longer life expectancy than men (Arias and Xu 2018), often marry men who are older than they are, and are less likely than men to remarry following divorce or spousal death (Livingston 2014). This affects women's long-term economic security, as many women who do not have a spouse or relative to provide care as they age need help from paid caregivers (Redfoot, Feinberg, and Houser 2013), which can be difficult to afford.

- As with the United States overall, heart disease is the leading cause of death for women aged 65 and older (Centers for Disease Control and Prevention 2015). This trend holds true for older women in North Carolina: the mortality rate from heart disease is 816.9 per 100,000 for women aged 65 and older, which is 6.5 times greater than the heart disease mortality rate for women overall in the state.

- The stroke mortality rate for women in North Carolina aged 65 and older is 291.2 per 100,000, which is higher than for women of the same age group in the United States (252.1 per 100,000). North Carolina women aged 65 and older have a mortality rate nearly 7 times higher than all North Carolina women (291.2 compared with 42.1 deaths per 100,000).

Figure S1. Mortality from Chronic Disease among Women ages 65+ by Type of Disease, North Carolina, 2016

Notes: Data are from 2012-2016. Mortality rates are average annual rates per 100,000 population and include women aged 65 and up and are age-adjusted to the 2000 U.S. standard population.
Source: IWPR compilation of data from the Centers for Disease Control and Prevention (2017d).

- The diabetes mortality rate for women aged 65 and older in North Carolina is 107.8 per 100,000 women, which is 5 times higher than the rate for women overall in North Carolina.
- Cancer is the fourth leading cause of death among North Carolina women aged 65 and older. Women's mortality rate from breast cancer, the most common type of cancer for women, increases as they age. Women aged 65 and older have a mortality rate from breast cancer of 94 deaths per 100,000, a rate that is 4.4 times higher than the rate for North Carolina women of all ages.
- Women are more likely to die of cervical cancer at older ages. In North Carolina, the cervical cancer mortality rate for women aged 65 and older is 5.7 per 100,000 women, which is higher than the rate for all women in the state (2.1 per 100,000) and similar to the rate for older women in the nation as a whole (5.6 per 100,000).
- The rate of mortality from uterine cancer for women aged 65 and older in North Carolina (12 per 100,000 women) is 5.4 higher than the mortality rate for North Carolina women of all ages (2.3 per 100,000).
- Research shows cases of ovarian cancer increase with age (American Cancer Society 2019b). The ovarian cancer mortality rate for North Carolina women aged 65 and older is 5.5 times higher than the rate for North Carolina women of all ages (37.1 and 6.7 per 100,000, respectively).

Obesity and Healthy Weight

Increasing rates of obesity and unhealthy weight are a cause of concern for women's health in the United States. The Centers for Disease Control and Prevention defines being overweight as having a Body Mass Index (BMI) of 25 to less than 30, and classifies obesity as having a BMI of 30 or higher (Centers for Disease Control and Prevention 2017e). Obesity and unhealthy weight can result from a combination of factors, including dietary choices and limited physical activity. Other factors, however, can also contribute, including certain medical conditions, genetic predisposition, and medications. Individuals who are obese are at an increased risk for stroke, type 2 diabetes, and heart disease (Centers for Disease Control and Prevention 2018a). While the share of women and men who are overweight and obese is not available by county, data are available at the state-level.

- Women in North Carolina and the United States are less likely to be overweight or obese than men: 62 percent of women in North Carolina and 59 percent of women nationally are overweight or obese compared with 71 percent of men in North Carolina and nationally (Appendix Table 5).

- The rates of women who are obese and overweight in North Carolina are the highest among Black (77 percent) and Native American women (71 percent), followed by Hispanic (64 percent) and White women (58 percent). Asian/Pacific Islander women are least likely to be overweight or obese (35 percent; Appendix Table 6).

Sexual Health

National data show that women are more likely than men to be diagnosed with sexually transmitted infections (STIs; U.S. Department of Health and Human Services 2012). Women are also more susceptible to certain STIs than men (Centers for Disease Control and Prevention 2011). Additionally, social, economic, and behavioral factors impact the rate at which STIs spread. For example, poverty, a lack of access to safe sex education and protection, and substance abuse can all contribute to the spread of STIs (Healthy People 2019). Untreated STIs can result in a variety of reproductive health problems such as pelvic inflammatory disease (PID), fetal and perinatal health problems, and cancers, including cervical cancer for women and penile cancer for men (Healthy People 2019; National Institute of Health 2017). As with many other health problems, education, awareness, access to health care, and proper medical screening can limit the spread of STIs.

Gonorrhea

Gonorrhea can cause infections in the genitals, rectum, and throat. It can infect both men and women and is most common among young people aged 15 to 24 (Centers for Disease Control and Prevention 2017b). Significant health complications can result from untreated gonorrhea, including infertility in women, infections that spread to the joints and other areas of body, increased in risk of contracting HIV/AIDS, and health complications for newborn babies (Centers for Disease Control and Prevention 2017b).

- In 2014, the rate of reported cases of gonorrhea for women in North Carolina was 155 per 100,000 women, higher than the national rate of 103.6 cases per 100,000 women.

- Edgecombe County (501.4 per 100,000), Scotland County (490.8 per 100,000), and Vance County (490.6 cases per 100,000) have the highest rates of reported cases of gonorrhea for women in North Carolina (Appendix Table 2).

- Ashe County (7.3 per 100,000) and Mitchell County (13.1 per 100,000) had the lowest rates of reported cases of gonorrhea for women in the state (Appendix Table 2).

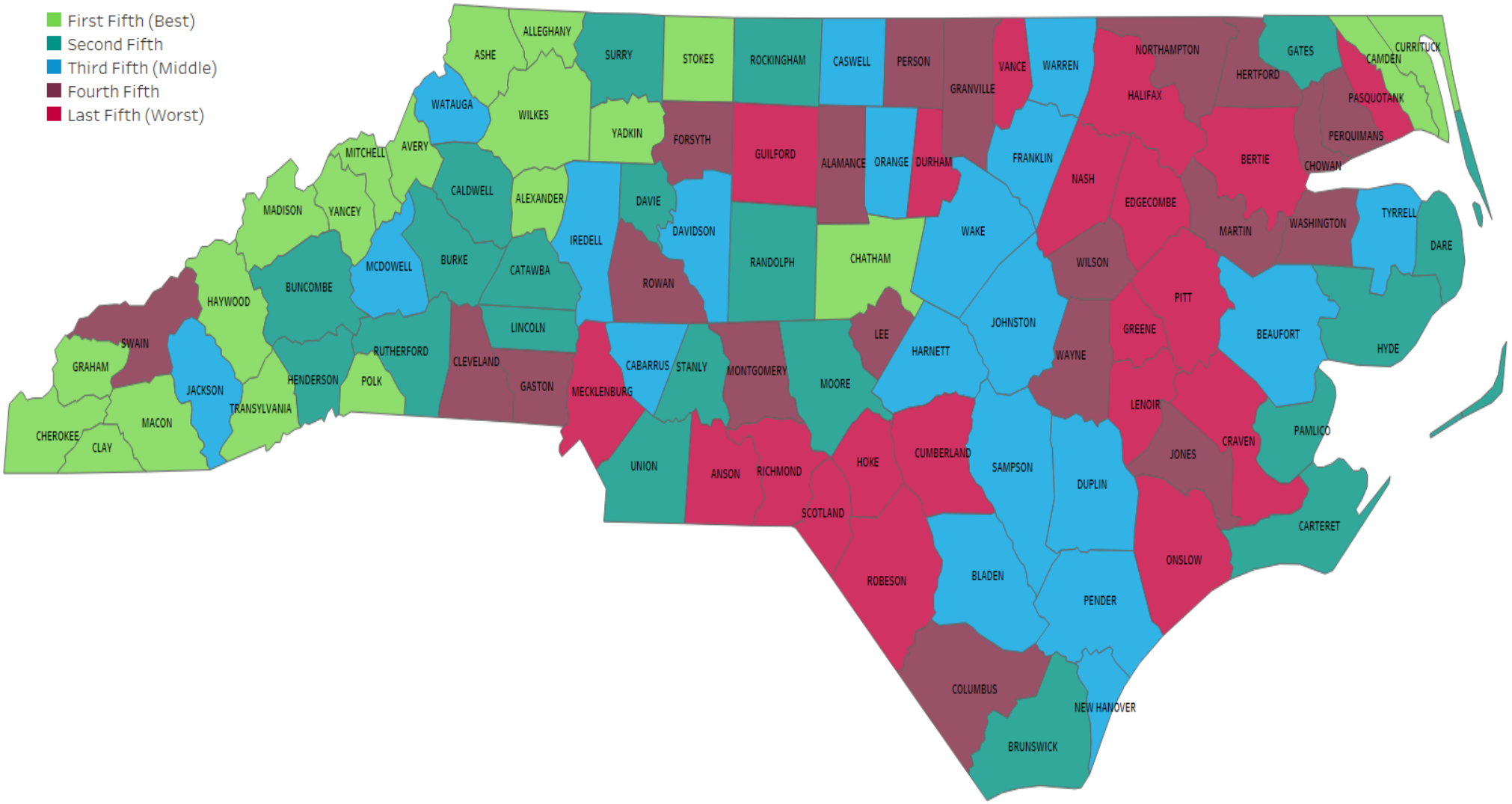
Chlamydia

Chlamydia is the most commonly reported sexually transmitted infection among women in the United States (Centers for Disease Control and Prevention 2017a). In 2016, over 1.5 million cases of chlamydia were reported to the CDC. Chlamydia infection rates vary by race and ethnicity and age: the number of reported cases of chlamydia for Black women was three times the number for White and Asian women (Centers for Disease Control and Prevention 2017a). Untreated chlamydia impacts women's health in numerous ways, including an increased risk for Pelvic Inflammatory Disease (PID). PID is an infection of a women's reproductive organs, which can lead to pelvic pain, pregnancy problems, and infertility (Centers for Disease Control and Prevention 2017c). Babies born to mothers who have untreated chlamydia are at increased risk for eye infections and pneumonia (Centers for Disease Control and Prevention 2017c)

- In 2014, the rate of reported cases of chlamydia for women in North Carolina was 740.6 per 100,000, much higher than the national rate of 628.3 per 100,000 (Table 1).

- In 2017, women had the highest rate of reported cases of chlamydia in Pitt County (1,659.4 per 100,000). The lowest rate was in Yancey County, at 177.3 per 100,000 (Map 3 and Appendix Table 2).

Map 3. Rate of Reported Cases of Chlamydia Among Women, North Carolina Counties, 2017



Notes: Data are per 100,000 population.
Source: IWPR compilation of data from North Carolina Electronic Disease Surveillance System.

Reproductive Health

Reproductive health includes the diseases, disorders, and conditions that affect the functioning of the male and female reproductive systems (National Institute of Environmental Health Sciences 2018). For women, data on the functioning of the reproductive system includes data on fertility and pregnancy. Disorders of the reproductive system include birth defects, low infant birth weight, infant mortality, and more (NIEHS 2018).

Fertility Rate

Fertility rate refers to the number of children born to women aged 15 to 49 per 1,000 women. In the United States, women's fertility rate has declined in recent years, mainly due to women's tendency to marry and give birth later in life. In 2018, the median age for women at the time of their first marriage was 27.8, up from 20.3 years in 1960 (U.S Census Bureau 2018a). The mean age for women at the birth of their first child was 26.8 in 2017, an increase from 21.4 years in 1970 (Martin et al. 2018; Mathews and Hamilton 2009). In recent years, birth rates decreased for women aged 15-19 and women aged 30-34 experienced the first decrease in the birth rate since 2010 (Martin et al. 2018).

- In 2016, the fertility rate in the United States was 62.5 births per 1,000 women. North Carolina's fertility rate was slightly lower at 60.7 births per 1,000 women.
- The fertility rate is the highest among Hispanic women both nationally (71.5 births per 1,000) and in North Carolina (87.2 births per 1,000; Appendix Table 8).
- White women in North Carolina have the lowest fertility rate (56.4 births per 1,000) followed by Black women (58.7), Asian/Pacific Islander women (66.4), and Native American women (61.7; Appendix Table 8).

Teenage Pregnancy

The teenage pregnancy rate is measured by the number of babies born to young women aged 15 to 19 per 1,000. In the United States, births to teens accounted for approximately 5.3 percent of all births in 2016 (U.S. DHHS 2016). In 2017, the birth rate among teens was 18.8 per 1,000, a 7 percent drop from 2016 (Martin et al. 2018). Despite the decrease in teen pregnancy, the United States continues to have a high teen pregnancy rate compared with other industrialized nations. Teen pregnancy can affect young

women's economic and educational outcomes: only half of teen mothers receive a high school diploma by age 22 (Centers for Disease Control and Prevention 2019).

- In 2016, the teenage pregnancy rate for North Carolina was 28.1 births per 1,000 (Appendix Table 8). Despite North Carolina having a higher teen pregnancy rate than the United States overall, the teen pregnancy rate in North Carolina has declined by nearly seven percent since 2014 (Hess et al. 2015).

- In North Carolina, the teen pregnancy rate is highest among Native American young women (48.8 percent), well above the rate for teens overall in North Carolina (28.1 percent). White teenagers and teenagers who identify as another or two or more races have the lowest teenage pregnancy rates (19.4 and 13.8 percent, respectively).

Low Birth Weight

Low birth weight—infants born weighing less than 5 pounds, 8 ounces—is a serious health concern in every state across the nation. Risk factors for having a baby with low birth weight include preterm labor and delivery and certain health conditions of the mother – including high blood pressure; diabetes and heart, lung, and kidney problems; STI infections; and not gaining enough weight during pregnancy. Some behaviors can also increase the risk of having a low birth weight baby, including the use of cigarettes, drugs, and alcohol during pregnancy (March of Dimes 2019). The opioid crisis is especially harmful to newborns, as babies born to mothers who are opioid dependent are often born premature, have low birth weights, and can experience significant health problems including neonatal withdrawal and birth defects such as heart defects and spina bifida (March of Dimes 2017). Compared with children born with normal birth weight, children with low birth weight are more likely to experience breathing problems and bleeding in the brain during their early years. They are also more likely to experience health conditions such as diabetes, heart disease, high blood pressure, obesity, and other intellectual and developmental disabilities later in their life (March of Dimes 2019).

- In 2016, 9.2 percent of babies born in North Carolina were low birth weight babies, a slightly higher share than in the United States (8.2 percent; Appendix Table 8).

- Nationally, Black women are almost twice as likely as White and Hispanic women to give birth to low birth weight babies: among women who gave birth, 13.7 percent of Black women gave birth to low birth weight babies in 2016, compared with 7 percent of White women and 7.3 percent of Hispanic women (Appendix Table 8).

- In North Carolina, 14.2 percent of Black women, 7.6 percent of White women, and 7.3 percent of Hispanic women gave birth to low birth weight babies in 2016 (Appendix Table 8).

Infant Mortality

The infant mortality rate is the number of infants that die before their first birthday for every 1,000 live births (Centers for Disease Prevention and Control 2018). The top four most common causes of infant mortality in the United States are birth defects, preterm birth and low birth weight, pregnancy complications, and sudden infant death syndrome. Infant mortality rates in the United States exceed the rates in other developed nations: the rate in the United States are about 71 percent higher than rates in comparable countries including Canada, the United Kingdom, and Germany (Gonzales and Sawyer 2017).

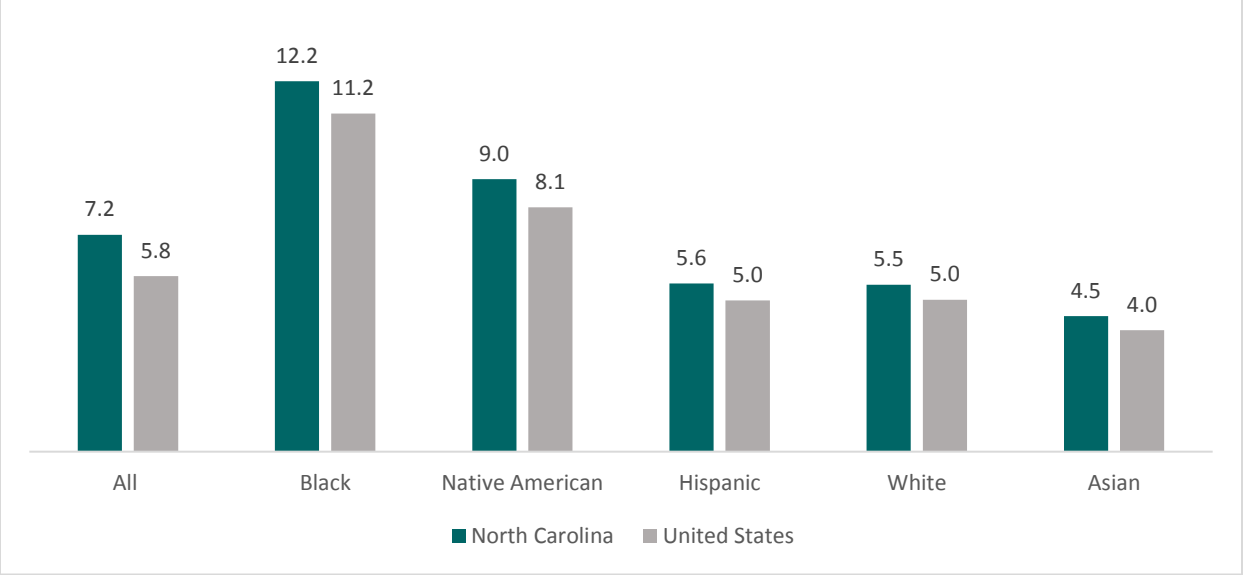
- In 2016, the infant mortality rate in the United States was 5.8 deaths per 1,000 live births. Infant mortality rates in the United States are especially high among babies born to Black and Native

American women (11.2 and 8.1 per 1,000 live births, respectively). Infant mortality rates are the lowest among Asian/Pacific Islander and White women (4 and 5 per 1,000 live births, respectively; Figure 4).

- North Carolina has one of the highest infant mortality rates in the country, ranking 41st out of 51. As Figure 4 shows, the infant mortality rate in North Carolina was higher than the national rate (5.8) coming in at 7.2 deaths per 1,000 live births.

- Following the national trend, Black women in North Carolina have the highest infant mortality rate (12.2 deaths per 1,000 live births), followed by Native American women (9 deaths per 1,000 births). Asian/Pacific Islander women in North Carolina have the lowest infant mortality rate at 4.5 deaths per 1,000 births (Figure 4).

Figure 4. Infant Mortality Rates by Race and Ethnicity, North Carolina and United States, 2016



Notes: Infant mortality rates are for 2014-2016 and include deaths of infants under age one per 1,000 live births. Racial categories are non-Hispanic.
Source: IWPR compilation of data from the Centers for Disease Control and Prevention (2017d).

Reproductive Rights

Reproductive rights—the ability to decide whether and when to have children—are essential to women's socioeconomic well-being and overall health (Hess et al. 2015). The ability to make a decision about one's own reproductive life and the timing of one's entry into parenthood is associated with greater relationship stability and satisfaction (National Campaign to Prevent Teen and Unplanned Pregnancy 2008). The 1973 Supreme Court case *Roe v Wade* established the legal right to abortion in the United States, but some states have restricted access to abortion, including requiring parental consent and/or notification for minors and mandatory waiting periods for all women seeking an abortion (Guttmacher Institute 2016). Public funding for abortions is also a contested issue in most states; federal law has banned the use of federal funds for most abortions since 1977, except in situations where the pregnancy resulted from rape or incest or the woman's life is in danger (Guttmacher 2019c). Additionally, many women live in areas without easy access to an abortion provider, which means that many women must

travel – sometimes significant distances – in order to have access to this health service, placing an additional financial burden on women who earn low-incomes.

- In the United States, more than one-third (34 percent) of women aged 15 to 44 live in a county without an abortion provider. More than two in five (43 percent) North Carolina women of child bearing age live in a county without an abortion provider (Guttmacher Institute 2018).

- North Carolina women are required to attend a counseling session that includes information designed to discourage abortion before being able to access abortion services. North Carolina also imposes a waiting period of 72 hours after the counseling session before women are allowed to obtain an abortion, which means that women must make an additional trip to their medical provider, sometimes having to travel substantial distances if they live in an area without access to an abortion provider (Guttmacher Institute 2019a).

- As of May 1, 2019, 37 states in the nation required parental consent or parental notification before a minor could access abortion services, which means that parents of a minor seeking an abortion must either be notified that the procedure is taking place or provide written consent. North Carolina is one of the states requiring the consent of at least one parent (Guttmacher Institute 2019b).

- In North Carolina, state funding for abortion is only available in situations where the woman's life is in danger or the pregnancy results from rape or incest; however, the state does not pay for all, or even most, medically necessary abortions (Guttmacher Institute 2019c).

Mental Health

Mental health problems affect both women and men; however, women have a higher incidence of certain mental health conditions, including anxiety and depression (Recovery Across Mental Health n.d.). Women's higher incidence of these conditions may be due partly to their greater likelihood of experiencing poverty (McSilver Institute for Poverty Policy Research n.d.), their greater responsibility in caring for disabled or ill family members, and their greater exposure to trauma from gender-based violence (American Psychiatric Association 2017). This trend also extends to teens, with 51 percent of female adolescents having ever had a mental disorder in their life, compared with 48 percent of males (National Institutes of Health 2019). In 2015, 11.6 percent of female high school students reported attempting suicide one or more times in the past year, compared with 5.5 percent of male students (Childers and DuMonthier 2016). In fact, half of all mental health problems begin by age 14 (U.S. Department of Health and Human Services 2017), making early detection of and attention to mental health issues a key component of women's health and wellness and school counselors play a significant role in everything from reducing negative student behaviors (Curtis et al. 2010) to increasing awareness of depression and suicide risk (Erickson and Abel 2013).

Poor Mental Health

The Behavioral Risk Factor Surveillance Survey asks women and men aged 18 and older in the United States to report on their mental health, including stress, depression, and problems with emotions. In 2015, women in the United States reported an average of 4.2 days per month on which their mental health was not good. The number of poor mental health days that women reported experiencing was higher than the average number of poor mental health days per month reported by men (3.2; Appendix Table 12)

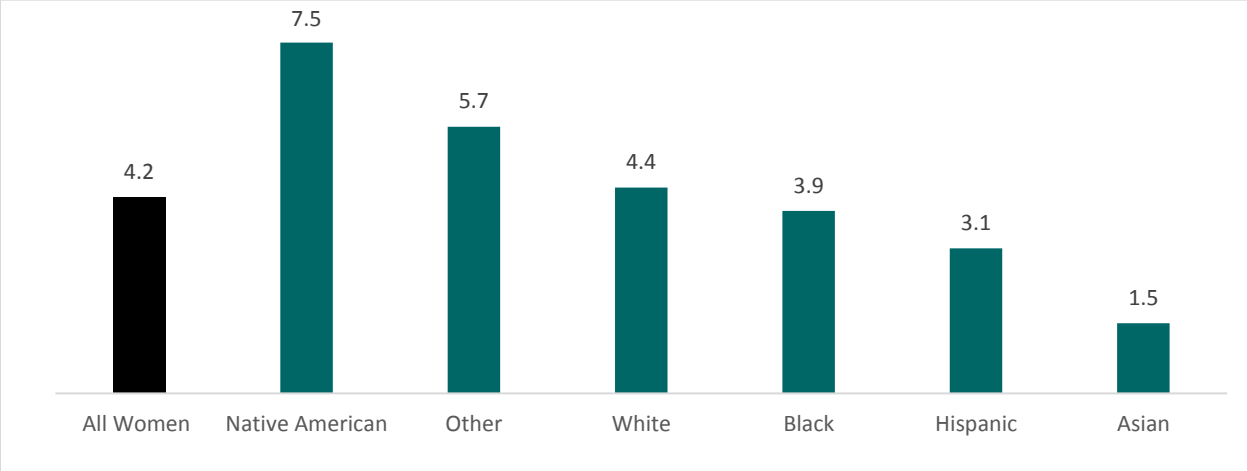
- North Carolina women reported having, on average, 4.2 days per month for which their mental health was not good, the same as for women in the United States overall (Appendix Table 12).

- Asian and Pacific Islander women in North Carolina have the fewest self-reported days of poor mental health at 1.5, followed by Hispanic women (3.1).

- Native American women in North Carolina report having the most days of poor mental health per month (7.5 days), followed by women who identify with another race or as multiracial (5.7 days; Figure 5).

Native American women have the highest number of days per month of poor mental health.

Figure 5. Number of Days per Month of Poor Mental Health Among North Carolina Women by Race and Ethnicity, 2015



Notes: Mean number of days in the past 30 days on which mental health was not good, as self-reported by female respondents aged 18 and older to the BRFSS survey. Racial categories are non-Hispanic.
Source: IWPR analysis of Behavioral Risk Factor Surveillance System microdata

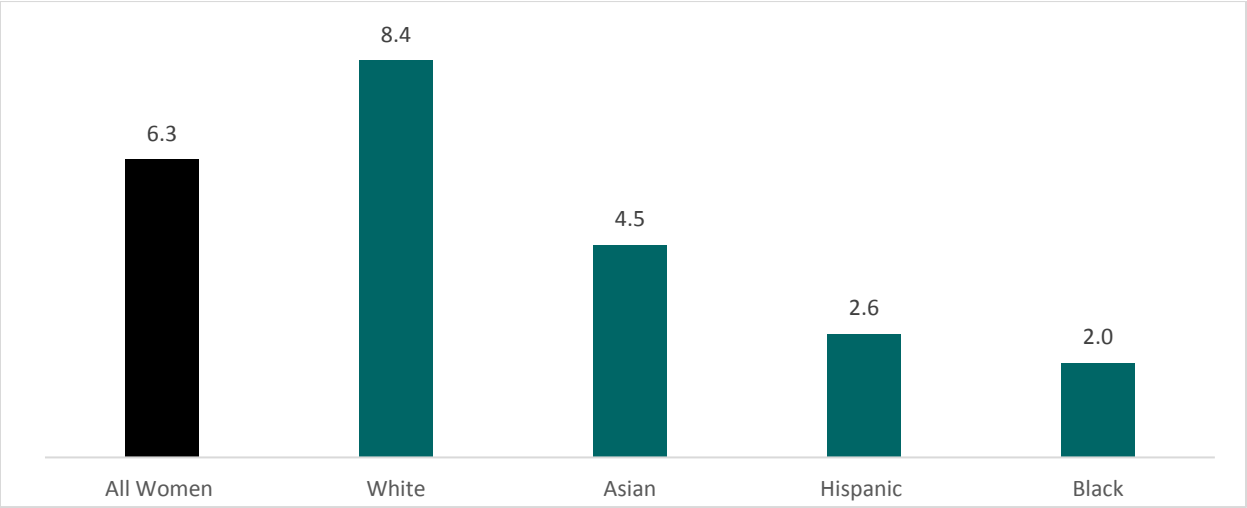
Suicide

In the United States and North Carolina, women are much less likely than men to die from suicide; however, they are as likely as men to engage in suicidal behaviors, such as making plans to commit suicide, and are more likely to have suicidal thoughts (Crosby et al. 2011). Women are also three times as likely as men to attempt suicide (Drapeau and McIntosh 2015); men, however, are more likely than women to complete suicide because they choose more violent and immediately lethal means (Tsirigotis, Gruszczynski, and Tsirigotis 2011). The national suicide mortality rate for women of all ages in 2015 was 6.1 per 100,000.

- In North Carolina, the suicide mortality rate for women is 6.3 per 100,000 women of all ages (Appendix Table 10).

- White women in North Carolina, who have a suicide mortality rate of 8.4 per 100,000 women, are almost twice as likely as Asian women, the group with the second highest rate, to commit suicide (4.5 per 100,000). Black women have the lowest suicide mortality rate at 2.0 per 100,000, less than a third of than the rate of all North Carolina women (Figure 6).

Figure 6. Suicide Mortality Rates Among North Carolina Women, 2017



Notes: Data are from 2015-2017. Mortality rates are average annual per 100,000 population, include women of all ages, and are age-adjusted to the 2000 U.S. standard population. Racial categories are non-Hispanic. Data are not available for Native American women or those who identify as another race or multiracial.
Source: IWPR compilation of data from the Centers for Disease Control and Prevention (2018d).

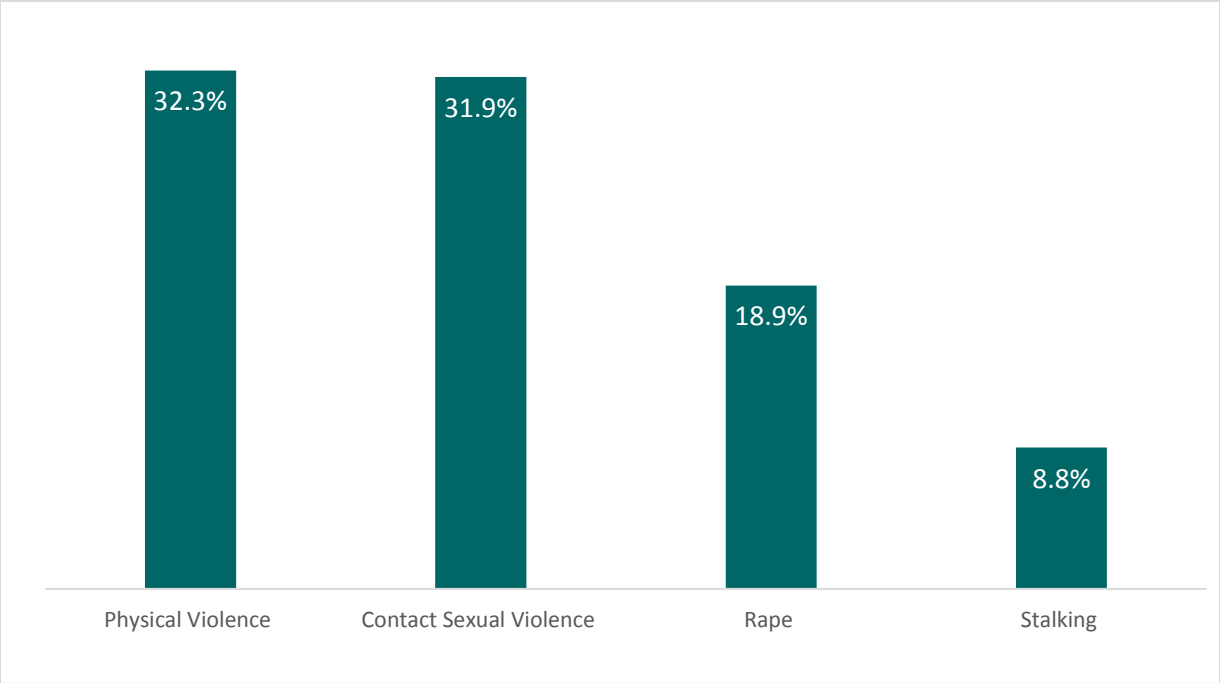
Violence Against Women

Domestic violence is a pattern of behavior in which one person seeks to isolate, dominate, and control the other through psychological, sexual, and/or physical abuse (Breiding et al. 2011). The 2011 National Intimate Partner and Sexual Violence Survey (NISVS) conducted by the Centers for Disease Control and Prevention found that just under one in three (31.5 percent) women aged 18 and older experience physical violence by an intimate partner at some point in their lifetime. Smaller shares of women experience stalking by their partner (9.7 percent) or other sexual violence by an intimate partner (15.8 percent). About 1 out of 5 women (19.3 percent) experience rape or attempted rape (Breiding et al. 2011).

In North Carolina, 35 percent of women have experienced at least one type of intimate partner or sexual violence (IPV) in their lifetime. Women were most likely to report having experienced either physical violence (32.3 percent) or contact sexual violence (31.9 percent), which includes rape, being made to penetrate someone else, sexual coercion (defined as non-physically pressured unwanted penetration), and/or unwanted sexual contact perpetrated by an intimate partner. Fewer women report having ever experienced rape (18.9 percent) or stalking (8.8 percent; Figure 7).

Figure 7. Lifetime Prevalence of Stalking and Physical and Sexual Violence Victimization Among North Carolina Women, 2012

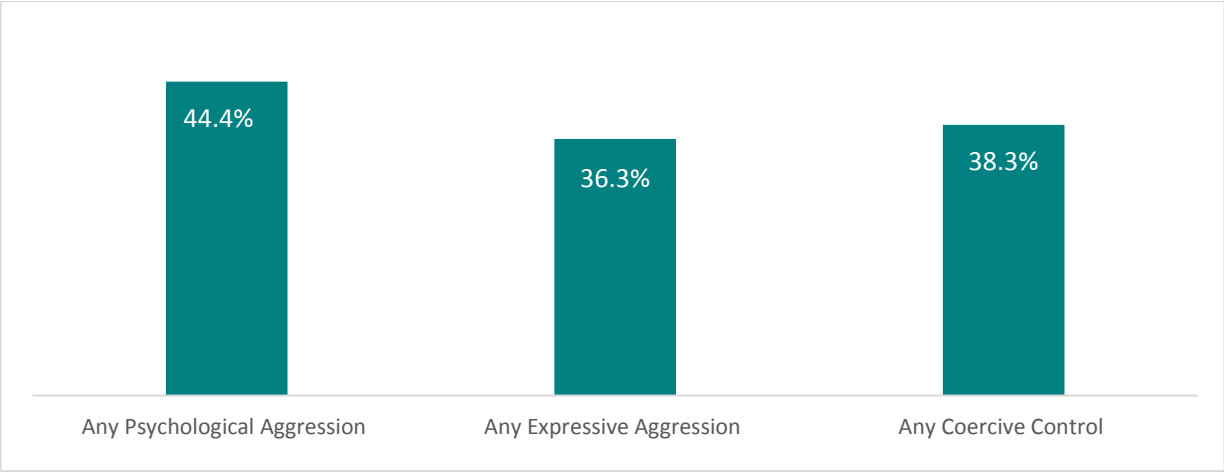
Note: Women aged 18 and older. Contact sexual violence includes rape, being made to penetrate someone else, sexual coercion (defined as non-physically pressured unwanted penetration), and/or unwanted sexual contact perpetrated by an intimate partner. Rape includes completed or attempted rape.
Source: Smith et al. 2017



A large share of women in North Carolina also experience psychological aggression and intimidation by an intimate partner in their lifetime. Forty-four percent of North Carolina women reported experiencing psychological aggression, while 38 percent report experiencing coercive control (Figure 8) – which includes any behaviors intended to control a partner including keeping someone from talking to family or friends, keeping track of an individual by demanding to know exactly where they are and what they are doing or keeping them from leaving the house altogether, threatening to take a child away, threatening to hurt a loved one or pet, keeping someone from having their own money, and making decisions for another person, among others (Smith et al. 2017) – and 36 percent experience expressive aggression.[5]

[5] Expressive aggression includes name calling, insults, acts meant to humiliate in front of other people (Smith et al. 2017).

Figure 8. Lifetime Prevalence of Aggression and Control by an Intimate Partner Among North Carolina Women, 2012



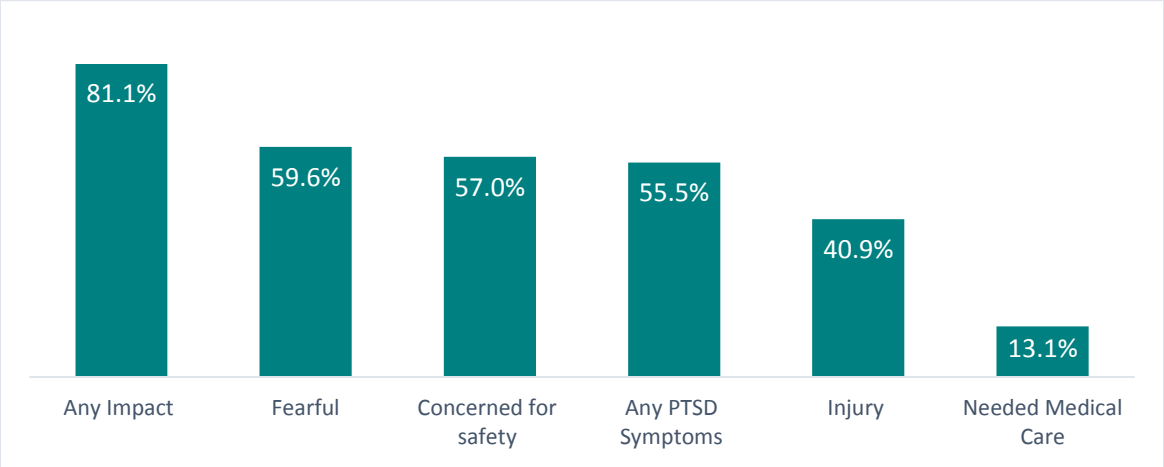
Note: Women aged 18 and older.
Source: Smith et al. 2017

The type of perpetrators vary, with acquaintances and intimate partners being the most common. Of the North Carolina women who reported ever experiencing contact sexual violence, nearly half (49.5 percent) reported being victimized by an acquaintance, 41.7 percent reported they were victimized by their current or former intimate partner, 19.5 percent by a family member, and 16 percent by a stranger (Smith et al. 2017).[6]

Figure 9 below shows the negative effects of intimate partner violence. Nearly 81 percent of women survivors of intimate partner violence in North Carolina report having experienced at least one negative impact as a result. Many survivors report being fearful (59.6 percent), concerned for their safety (57 percent), having PTSD symptoms (55.5 percent), experiencing a physical injury (40.9 percent), and/or needing medical care (13.1 percent; Figure 9).

[6] Relationship to the perpetrator is based on victims' reports of their relationship at the time the perpetrator first committed any violence against them. Because of the possibility of multiple perpetrators, combined percentages might exceed 100 percent.

Figure 9. Share of Women Survivors Experiencing Intimate Partner Violence-Related Impacts by Type of Impact, North Carolina, 2012



Notes: Includes women aged 18 and older who experienced contact sexual violence, physical violence, and/or stalking by an intimate partner in their lifetime. "Any impact" includes experiencing any of the impacts shown in the figure and/or contacting a crisis hotline. "Any PTSD symptoms" includes: experiencing nightmares; trying not to think about or avoiding being reminded of the violence; feeling constantly on guard, watchful, or easily startled; and feeling numb or detached.
Source: Smith et al. 2017

The prevalence of intimate partner violence and abuse varies across the largest racial and ethnic groups. Nationally, intimate partner violence is the highest among Native American women (64 percent), followed by women who identify as two or more races (61.1 percent). Fifty-four percent of Black women, 47 percent of White women, 44 percent of Hispanic women, and 30 percent of Asian/Pacific Islander women have been victims of some form of intimate partner violence in their lifetime. Due to small sample sizes, the NISVS race and ethnicity breakdown of intimate partner violence in North Carolina is limited to White and Black women. Intimate partner violence is most common among Black women, with half of Black women in North Carolina having experienced some type of intimate partner violence. More than one-third (34.6 percent) of White women in North Carolina have experienced IPV (Smith et al. 2017).

In 2018, there were a total of 103 domestic violence programs in North Carolina. These programs support the state's movements to end domestic violence and to enhance work with survivors through collaborations, innovative training, prevention, technical assistance, state policy development, and legal advocacy. In the 2017-2018 fiscal year, these domestic violence programs served a total of 52,187 people. Of those served, 84 percent were women, 51 percent were White, 29 percent were Black, and 10 percent were Hispanic. These domestic violence programs also served 10,780 clients who experienced sexual assault. Of those sexual assault survivors served, 85 percent were women, 54 percent were White, 21 percent Black, and 9 percent were Hispanic (Appendix Table 13).

Conclusion and Policy Recommendations

The data in this report show that North Carolina women's health and well-being has improved in some ways, yet not all women are equally benefitting from this progress. Wide disparities persist in disease and mortality rates and incidence of sexually transmitted infections by race and ethnicity, as well as by county. As can be seen in the maps above, many of the rural counties fare worse when it comes to health and wellbeing in North Carolina. Ensuring that women can access the health care services they need – including for mental health and substance abuse – is vital to the health and well-being of women in North Carolina. Additionally, women's experiences of intimate partner violence show the detrimental impact this violence has on women in the state. Policymakers, public health officials, advocates, and philanthropists can use multiple strategies to improve health and reduce health inequities among women in North Carolina. These strategies include the following recommendations:

- Increase women's access to health care and preventative services, including screening and testing to promote early detection of illness or disease and increasing access to health care providers, particularly in rural areas. This could include investments to increase the number of hospitals, physicians, and psychiatrists, especially in rural areas or areas with high concentrations of people living in poverty.

- Close the health insurance coverage gap for people who do not qualify for Medicaid or for subsidies on the Health Insurance Marketplace (a group comprised mostly of people who are working and are female). This could include actions such as accepting federal funds to expand Medicaid eligibility to increase women's access to preventative health and family planning services and expanding access to programs that help cover other health related costs not covered by Medicaid.

- Address disparities in health outcomes among women from different racial, ethnic, and socioeconomic groups. Interventions and investments aimed at preventing and treating diseases

affecting women in North Carolina can be designed with cultural sensitivity and targeted to the most affected racial and ethnic groups and to counties where the need is greatest.

- Increase women's earnings by raising the minimum wage and improving their economic security by enacting policies such as paid family and medical leave and paid sick and safe days. These policies would especially help women of color, who disproportionately work in low-wage jobs that are less likely to provide employment benefits. These policies would also give women the economic security needed to access and pay for preventative health care and vital and life-saving health services when needed. Paid family and medical leave and paid sick and safe days would also allow those who are experiencing a health issue, or who have a family member they need to care for, the ability to take the time off from work to ensure they or their loved one receives the medical care needed.

- Hire more school psychologists, social workers, and nurses to create a school climate that promotes healthy learning, living, and personal growth. Given that mental health issues start as early as age 14, this is a critical investment for a healthy North Carolina that would contribute to the social and emotional development of young people.

- Ensure women's access to reproductive health services and rights, which would enable women to make health care decisions and determine the timing and size of their families. North Carolina can enhance women's reproductive rights by eliminating barriers that make it difficult for women to access contraception and abortion and to obtain the full range of reproductive health services and information they need.

- Increase enforcement of existing policies to promote women's safety and the enactment of new statutes that can help to ensure that women live free from violence, harassment, stalking, and abuse. North Carolina can take steps such as continuing to support funding streams that provide essential services and supports for domestic violence and sexual assault victims, and raising awareness about sexual and dating violence and strategies for addressing it. North Carolina can safeguard the employment rights of domestic violence victims and recognize stalking as a serious crime that includes a wide range of behaviors.

- Improve North Carolina's data collection on health and wellness indicators. Ensuring more collection of and public access to data at the county level, especially on women's experiences with violence and abuse, would help researchers and policymakers develop a more complete understanding of the challenges women face and solutions to address them.

Appendix I: Methodology

To analyze the status of women in North Carolina, IWPR selected data that prior research and experience have shown illuminate issues that are integral to women's lives and that allow for comparisons with other states and the United States as a whole. The data in IWPR's *Status of Women in North Carolina: Health, Well-Being & Reproductive Rights* report come from federal government agencies and other sources. Much of the analysis of women's health relies on data from the Centers for Disease Control and Prevention (CDC), including the CDC's Wide-ranging On-Line Data for Epidemiologic Research (WONDER), the National Cancer Institute, and National Center for HIV, STD.

IWPR analyzed microdata from the Behavioral Risk Factor Surveillance System (BRFSS) survey for data on preventive care, overweight and obesity rates, and the average number of days per month that women's mental health is not good. BRFSS is conducted by the CDC annually in conjunction with the states, the District of Columbia, and five U.S. territories. BRFSS measures behavioral risk factors for the noninstitutionalized adult population (aged 18 and older) living in the United States. Data are collected through telephone interviews with both landline and mobile telephone numbers in the sample to ensure all segments of the population are covered. In 2015, 441,456 interviews were fully or partially completed (Centers for Disease Control and Prevention 2016a).

When analyzing state- and national-level BRFSS microdata, IWPR used 2015 data. When disaggregating data at the state level by race/ethnicity, IWPR combined three years of data (2013, 2014, and 2015) to ensure sufficient sample sizes, with several exceptions. Data on the percent of women who have had a pap test in the past three years and the percent who have had a mammogram in the past two years were available only for 2015. IWPR used sample weights provided by the CDC to obtain nationally representative statistics that adjust for sampling both landline and mobile telephone numbers. Data are not presented if the average cell size for the category total is less than 35.

The tables and figures present data for individuals, often disaggregated by race and ethnicity. In general, race and ethnicity are self-identified; the person providing the information for the survey determines the group to which he or she (and other household members) belongs. People who identify as Hispanic or Latino may be of any race; to prevent double counting, IWPR's analysis separates Hispanics from racial categories—including White, Black (which includes those who identified as Black or African American), Asian/Pacific Islander (which includes those who identified as Chinese, Japanese, or other Asian or Pacific Islander), or Native American (which includes those who identified as American Indian or Alaska Native).

MORTALITY FROM HEART DISEASE, STROKE, and DIABETES: Average annual mortality from heart disease, stroke, and diabetes among women of all ages per 100,000 population (in 2014–2016 for heart disease and stroke, and 2012-2016 for diabetes). Data are age-adjusted to the 2000 U.S. standard population. Source: Centers for Disease Control and Prevention, 2017d, National Center for Health Statistics (2017d).

MORTALITY FROM BREAST CANCER, CERVICAL CANCER, OVARIAN CANCER, AND UTERINE CANCER: Average mortality among women of all ages from breast, cervical, ovarian, and uterine cancer per 100,000 population (in 2012–2015 for state level and 2011-2015 for county level). Data are age-adjusted to the 2000 U.S. standard population. Source: Centers for Disease Control and Prevention, 2017d and 2018c; National Cancer Institute, 2018.

RATE OF REPORTED CASES OF GONORRHEA AND CHLAMYDIA: Reported rate of chlamydia among women of all ages per 100,000 population (2012-2014). Source: Centers for Disease Control, 2017d, and North Carolina Department of Health and Human Services (2019).

INCIDENCE OF HIV AND AIDS: Average incidence of AIDS indicating diseases among females aged 13 years and older per 100,000 population in 2016. Source: Centers for Disease Control and Prevention 2017d and the North Carolina Department of Health and Human Services (2019).

VIOLENCE AGAINST WOMEN: Much of the data are drawn from published reports from the CDC that analyze findings from the 2010 and 2011 National Intimate Partner and Sexual Violence Surveys (NISVS), a national random-digit-dial telephone survey of the noninstitutionalized U.S. English- and Spanish-speaking population aged 18 and older. Some of the tables in this report that rely on data from the 2011 NISVS are disaggregated by race and ethnicity. In this CDC report, Hispanics may be of any race or two or more races, and only whites and blacks are defined as non-Hispanic.

Other data in this report are from various sources.

Appendix II: Health & Wellness Tables

Appendix Table 1. Mortality Rates (per 100,000) Among Women, North Carolina Counties

	Heart Disease		Stroke		Diabetes		Breast Cancer		Cervical Cancer		Ovarian Cancer		Uterine Cancer	
County	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank
Alamance County	112.9	15	42.8	46	19.6	32	21.3	36	N/A	N/A	7.9	27	3.2	2
Alexander County	105.3	9	37.5	18	18.9	27	15.9	7	N/A	N/A	N/A	N/A	N/A	N/A
Alleghany County	122.8	29	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Anson County	201.7	96	52	73	29.6	60	21.4	40	N/A	N/A	N/A	N/A	N/A	N/A
Ashe County	138.1	54	28.3	3	N/A	N/A	29.5	78	N/A	N/A	N/A	N/A	N/A	N/A
Avery County	144.9	63	46.4	61	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Beaufort County	144.6	61	41.7	42	23.7	48	18.9	18	N/A	N/A	7.5	26	N/A	N/A
Bertie County	146.8	66	44.1	55	53.9	75	26.4	73	N/A	N/A	N/A	N/A	N/A	N/A
Bladen County	210.4	98	38.3	24	29.3	59	17.9	13	N/A	N/A	N/A	N/A	N/A	N/A
Brunswick County	130.5	40	44.4	56	13.1	4	17.6	11	N/A	N/A	9.1	34	6	26
Buncombe County	110.4	13	39.1	27	14.1	9	17.9	13	2.6	5	6.4	12	3.7	5
Burke County	153	74	55	76	19	28	15.6	5	N/A	N/A	6	7	N/A	N/A
Cabarrus County	113.2	16	41.6	40	19.1	29	22.8	54	N/A	N/A	6.6	16	4.3	10
Caldwell County	159.2	82	42.3	43	20.5	38	22.4	50	N/A	N/A	9.7	39	N/A	N/A
Camden County	157.2	80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Carteret County	128.3	34	39.4	29	14.1	9	15.3	3	N/A	N/A	6.9	23	N/A	N/A
Caswell County	120.9	26	N/A		27.4	57	27.6	76	N/A	N/A	N/A	N/A	N/A	N/A
Catawba County	130	37	43.8	51	17.8	23	20.3	30	N/A	N/A	5.4	3	3.5	3
Chatham County	76.6	1	34.7	12	13.7	7	14.2	2	N/A	N/A	6.8	22	N/A	N/A
Cherokee County	158	81	42.5	45	19.9	33	24.5	63	N/A	N/A	13.5	44	N/A	N/A
Chowan County	140	56	51.3	71	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Clay County	117.4	24	53.9	75	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cleveland County	175.3	88	59.4	82	30.4	61	22.6	52	N/A	N/A	6.3	11	4.7	12
Columbus County	263.3	99	43.8	51	16.1	17	20.6	33	N/A	N/A	N/A	N/A	N/A	N/A
Craven County	128.6	35	38.1	22	23.5	45	21.6	45	N/A	N/A	4.3	1	5.2	16
Cumberland County	152.7	73	40.1	32	23.7	48	25	66	3.3	6	7.9	28	5.2	16
Currituck County	175.9	90	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dare County	114.2	18	31	8	N/A	N/A	19.3	21	N/A	N/A	N/A	N/A	N/A	N/A

	Heart Disease		Stroke		Diabetes		Breast Cancer		Cervical Cancer		Ovarian Cancer		Uterine Cancer	
County	**Rate**	**Rank**	**Rate**	**Rank**	**Rate**	**Rank**	**Rate**	**Rank**	**Rate**	**Rank**	**Rate**	**Rank**	**Rate**	**Rank**
Davidson County	131	42	51.8	72	23.4	44	23.4	58	N/A	N/A	8.8	33	3.1	1
Davie County	123.2	30	49.1	65	13.4	5	20.3	30	N/A	N/A	N/A	N/A	N/A	N/A
Duplin County	135.9	47	58	81	19.3	30	20.2	29	N/A	N/A	N/A	N/A	N/A	N/A
Durham County	102.6	5	32.4	10	16.1	18	25.1	67	N/A	N/A	8.1	29	5.6	21
Edgecombe County	155.2	78	88.8	88	26.6	55	30	79	N/A	N/A	N/A	N/A	N/A	N/A
Forsyth County	114	17	42.3	43	17.4	22	24.9	65	1.7	2	7.1	24	4.7	12
Franklin County	137.3	52	43.3	49	20.1	35	22.4	50	N/A	N/A	N/A	N/A	N/A	N/A
Gaston County	149.5	70	40.1	32	23.1	43	18.7	17	3.3	6	5.7	5	5.2	16
Gates County	140.5	57	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Graham County	180.8	92	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Granville County	130.5	40	34	11	20	34	21.9	49	N/A	N/A	N/A	N/A	N/A	N/A
Greene County	105.5	10	72.5	87	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Guilford County	111	14	40.7	35	16.4	19	20.4	32	1.4	1	6.1	9	4.2	9
Halifax County	148.7	69	44.8	59	38	68	21.3	36	N/A	N/A	N/A	N/A	N/A	N/A
Harnett County	175.8	89	44.5	57	28.5	58	16.8	10	N/A	N/A	5.3	2	5.7	23
Haywood County	156.7	79	38.8	25	15.7	15	14.1	1	N/A	N/A	N/A	N/A	N/A	N/A
Henderson County	105.6	11	29.8	5	7.7	1	17.8	12	N/A	N/A	9.1	34	N/A	N/A
Hertford County	144.6	61	40.9	36	42.3	71	29.4	77	N/A	N/A	N/A	N/A	N/A	N/A
Hoke County	146.9	67	N/A		21.2	40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hyde County	182.2	93	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Iredell County	129.1	36	56.1	78	19.4	31	23.3	57	N/A	N/A	5.5	4	3.9	7
Jackson County	102.6	5	27.9	2	32.1	66	16	8	N/A	N/A	N/A	N/A	N/A	N/A
Johnston County	162.3	83	37.9	21	16.6	20	22.6	52	N/A	N/A	5.9	6	N/A	N/A
Jones County	170.7	86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lee County	134.9	46	31.6	9	21.4	41	21.3	36	N/A	N/A	10.1	41	N/A	N/A
Lenoir County	166.9	85	51.2	70	35.7	67	24.7	64	N/A	N/A	10.2	42	9.6	29
Lincoln County	154.1	76	38.1	22	20.6	39	16.7	9	N/A	N/A	N/A	N/A	N/A	N/A
Macon County	115.1	22	29.8	5	20.4	36	21.1	35	N/A	N/A	N/A	N/A	N/A	N/A

	Heart Disease		Stroke		Diabetes		Breast Cancer		Cervical Cancer		Ovarian Cancer		Uterine Cancer	
County	**Rate**	**Rank**	**Rate**	**Rank**	**Rate**	**Rank**	**Rate**	**Rank**	**Rate**	**Rank**	**Rate**	**Rank**	**Rate**	**Rank**
Madison County	137.1	51	50.8	69	N/A	N/A	25.5	69	N/A	N/A	N/A	N/A	N/A	N/A
Martin County	136.3	49	49.5	66	31.6	64	33.1	82	N/A	N/A	N/A	N/A	N/A	N/A
McDowell County	130.2	38	35.1	13	26.8	56	20.9	34	N/A	N/A	9.4	38	N/A	N/A
Mecklenburg County	102.7	7	36.9	17	13.6	6	21.8	48	1.7	2	6.6	16	5.4	19
Mitchell County	114.8	20	N/A	N/A	N/A	N/A	26.2	72	N/A	N/A	N/A	N/A	N/A	N/A
Montgomery County	116.5	23	37.6	20	24.3	51	21.4	40	N/A	N/A	N/A	N/A	N/A	N/A
Moore County	104.7	8	36.5	15	8.1	2	18.6	15	N/A	N/A	6.7	18	N/A	N/A
Nash County	142.6	59	43.2	48	23.5	45	31.1	80	N/A	N/A	6.7	18	4.7	12
New Hanover County	118.7	25	57.7	80	13.7	7	19.8	25	N/A	N/A	8.1	29	3.8	6
Northampton County	148.5	68	39.3	28	42.2	70	31.7	81	N/A	N/A	N/A	N/A	N/A	N/A
Onslow County	133	44	50.5	68	25.9	54	21.5	44	N/A	N/A	8.7	32	5.4	20
Orange County	102.4	4	28.7	4	15	13	20	26	N/A	N/A	9.3	37	5.6	21
Pamlico County	153.1	75	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pasquotank County	210.1	97	37.5	18	23.5	45	25.7	70	N/A	N/A	N/A	N/A	N/A	N/A
Pender County	128.1	33	49	64	14.6	12	19.6	22	N/A	N/A	N/A	N/A	N/A	N/A
Perquimans County	146.3	64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Person County	121.3	27	43.8	51	24	50	23	55	N/A	N/A	12.1	43	N/A	N/A
Pitt County	132.2	43	46.6	62	22.2	42	27	75	N/A	N/A	9.1	34	6.1	27
Polk County	114.7	19	39	26	N/A	N/A	19.6	22	N/A	N/A	N/A	N/A	N/A	N/A
Randolph County	152.1	72	55.7	77	18.8	25	18.6	15	N/A	N/A	6	8	4	8
Richmond County	197.1	95	59.9	84	43.7	72	20.1	27	N/A	N/A	N/A	N/A	N/A	N/A
Robeson County	176.8	91	43	47	41.3	69	20.1	27	N/A	N/A	6.5	15	5.9	25
Rockingham County	155.1	77	40	31	31.9	65	23.5	59	N/A	N/A	6.7	18	5.1	15
Rowan County	142.7	60	48	63	20.1	35	21.4	40	N/A	N/A	6.7	18	4.6	11
Rutherford County	165.6	84	59.5	83	24.8	52	21.3	36	N/A	N/A	8.6	31	N/A	N/A

	Heart Disease		Stroke		Diabetes		Breast Cancer		Cervical Cancer		Ovarian Cancer		Uterine Cancer	
County	**Rate**	**Rank**	**Rate**	**Rank**	**Rate**	**Rank**	**Rate**	**Rank**	**Rate**	**Rank**	**Rate**	**Rank**	**Rate**	**Rank**
Sampson County	146.7	65	43.5	50	47	73	21.4	40	N/A	N/A	N/A	N/A	N/A	N/A
Scotland County	136.2	48	53.5	74	25.3	53	24.3	62	N/A	N/A	N/A	N/A	N/A	N/A
Stanly County	173.8	87	50.1	67	15.8	16	21.6	46	N/A	N/A	N/A	N/A	N/A	N/A
Stokes County	134.8	45	69.8	86	15.2	14	23.2	56	N/A	N/A	9.7	39	N/A	N/A
Surry County	130.4	39	41.6	41	20.4	37	19.6	22	N/A	N/A	N/A	N/A	N/A	N/A
Swain County	189.7	94	N/A	N/A	51.4	74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Transylvania County	95.5	2	40.5	34	N/A	N/A	15.7	6	N/A	N/A	N/A	N/A	N/A	N/A
Tyrrell County	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Union County	137.7	53	39.7	30	12.8	3	19	19	N/A	N/A	6.1	9	3.6	4
Vance County	150.4	71	44.7	58	30.4	62	26.5	74	N/A	N/A	N/A	N/A	10	30
Wake County	99.6	3	35.3	14	14.2	11	21.7	47	2.2	4	7.2	25	5.8	24
Warren County	125.4	31	56.7	79	N/A	N/A	25.2	68	N/A	N/A	N/A	N/A	N/A	N/A
Washington County	137	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Watauga County	106.4	12	27.7	1	N/A	N/A	15.3	3	N/A	N/A	N/A	N/A	N/A	N/A
Wayne County	139.1	55	61.2	85	30.6	63	23.5	59	N/A	N/A	6.4	12	6.5	28
Wilkes County	114.9	21	28.8	5	17.9	24	19.1	20	N/A	N/A	N/A	N/A	N/A	N/A
Wilson County	122.7	28	36.8	16	18.8	25	25.8	71	N/A	N/A	6.4	12	N/A	N/A
Yadkin County	127.5	32	44	54	17.3	21	23.8	61	N/A	N/A	N/A	N/A	N/A	N/A
Yancey County	141	58	45	60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
North Carolina	**124.9**		**42.1**		**19.2**		**21.3**		**2.1**		**6.7**		**2.2**	
United States	**131.9**		**36.3**		**17.3**		**20.9**		**2.3**		**7**		**2.7**	

Notes: Data for heart disease mortality and stroke mortality are from 2014-2016, data for diabetes are from 2012-2016, and data for breast, cervical, ovarian, and uterine cancer are from 2011-2015.

Source: IWPR compilation of data from the Centers for Disease Control and Prevention (2017d; 2018c).

Appendix Table 2. Reported Rates of Gonorrhea and Chlamydia for Women, North Carolina Counties

	Gonorrhea		Chlamydia		HIV		AIDS	
	Rate	Rank	Rate	Rank	Rank	Rate	Rank	Rate
ALAMANCE	171.7	57	866.6	69	N/A	N/A	4.1	17
ALEXANDER	81.7	21	294.2	8	4.1	18	N/A	N/A
ALLEGHANY	18.1	3	361	15	N/A	N/A	N/A	N/A
ANSON	259.7	77	1097.3	89	N/A	N/A	9.8	36
ASHE	7.3	1	248.6	3	N/A	N/A	N/A	N/A
AVERY	37.6	7	326.1	12	N/A	N/A	N/A	N/A
BEAUFORT	166.4	52	791.4	61	14	47	4.7	24
BERTIE	198.5	65	1117.7	91	11.9	43	11.9	41
BLADEN	274	79	673.6	50	N/A	N/A	N/A	N/A
BRUNSWICK	99.8	30	450.4	24	3.3	13	1.6	1
BUNCOMBE	147.7	44	554.9	37	0.9	1	1.7	3
BURKE	182	60	539.4	34	7.6	29	N/A	N/A
CABARRUS	123.5	41	646	48	2.3	4	N/A	N/A
CALDWELL	135	43	482.3	28	2.8	9	N/A	N/A
CAMDEN	113.6	35	265	6	N/A	N/A	N/A	N/A
CARTERET	82.8	23	485.1	30	N/A	N/A	N/A	N/A
CASWELL	153.1	46	729.5	57	N/A	N/A	N/A	N/A
CATAWBA	169.9	56	564.2	39	4.4	19	N/A	N/A
CHATHAM	83.4	24	392.6	18	3.1	11	N/A	N/A
CHEROKEE	34.7	6	270.6	7	N/A	N/A	N/A	N/A
CHOWAN	310	85	984	79	N/A	N/A	N/A	N/A
CLAY	N/A	N/A	246	2	N/A	N/A	N/A	N/A
CLEVELAND	422.7	96	926.3	75	4.6	20	4.6	22
COLUMBUS	370.5	91	832.8	67	8.2	33	4.1	17
CRAVEN	209.1	68	1015.9	83	2.4	5	2.4	5
CUMBERLAND	415.7	95	1411.7	98	6.6	28	4.4	19
CURRITUCK	45.1	10	255.4	4	N/A	N/A	N/A	N/A
DARE	65.7	16	437.9	22	N/A	N/A	N/A	N/A
DAVIDSON	188.1	63	610.4	45	2.8	9	5.5	25

	Gonorrhea		Chlamydia		HIV		AIDS	
	Rate	Rank	Rate	Rank	Rank	Rate	Rank	Rate
DAVIE	114.9	37	455	25	10.7	36	N/A	N/A
DUPLIN	182.2	61	728.6	56	7.9	31	11.9	41
DURHAM	288.8	82	1106.7	90	11.5	41	5.8	27
EDGECOMBE	501.4	100	1426.7	99	12.4	45	12.4	43
FORSYTH	232.5	72	829.2	66	6	26	9.6	34
FRANKLIN	159	48	768.1	59	3.5	15	3.5	12
GASTON	284.4	81	881.2	72	3.1	11	7.3	30
GATES	102.1	31	527.3	32	N/A	N/A	N/A	N/A
GRAHAM	46.8	11	397.9	19	N/A	N/A	N/A	N/A
GRANVILLE	175.2	59	797.1	63	8	32	4	15
GREENE	272.5	78	1058.4	87	N/A	N/A	N/A	N/A
GUILFORD	317.2	88	1191.1	92	11	37	3	8
HALIFAX	307.9	84	1291.5	94	N/A	N/A	4.4	19
HARNETT	162.9	50	759.3	58	11	37	5.5	25
HAYWOOD	69.5	18	309.6	11	N/A	N/A	N/A	N/A
HENDERSON	86.4	26	423.7	21	N/A	N/A	N/A	N/A
HERTFORD	173	58	980.4	78	N/A	N/A	N/A	N/A
HOKE	317.3	89	1057.5	86	18.3	51	13.7	44
HYDE	41.5	9	539.4	34	N/A	N/A	N/A	N/A
IREDELL	200.8	66	669.8	49	2.7	8	4	15
JACKSON	219.7	69	713.9	55	5.2	22	N/A	N/A
JOHNSTON	121.7	39	632.3	46	2.4	5	2.4	5
JONES	224.2	71	815.2	65	N/A	N/A	23.1	47
LEE	155.3	47	792.8	62	3.9	17	7.8	33
LENOIR	377.9	92	1073	88	11.9	44	19.9	46
LINCOLN	122.9	40	481.8	27	N/A	N/A	N/A	N/A
MACON	28	4	403.3	20	N/A	N/A	N/A	N/A
MADISON	63.6	14	363.3	16	N/A	N/A	N/A	N/A
MARTIN	149	45	927.1	76	9.6	35	9.6	34
MCDOWELL	282.8	80	609.8	44	N/A	N/A	N/A	N/A
MECKLENBURG	244.5	74	1032.2	84	11.4	40	6.9	29

	Gonorrhea		Chlamydia		HIV		AIDS	
	Rate	Rank	Rate	Rank	Rank	Rate	Rank	Rate
MITCHELL	13.1	2	365.8	17	N/A	N/A	N/A	N/A
MONTGOMERY	113.9	36	804.7	64	N/A	N/A	N/A	N/A
MOORE	89.1	27	485	29	N/A	N/A	N/A	N/A
NASH	312.6	87	1013.3	82	9.6	35	2.4	5
NEW HANOVER	161	49	785.8	60	5.8	24	3.9	14
NORTHAMPTON	381.8	93	988.8	80	11	37	11	37
ONSLOW	197.2	64	1250.2	93	5.9	25	4.4	19
ORANGE	123.9	42	682.9	51	N/A	N/A	N/A	N/A
PAMLICO	112.6	34	530.9	33	N/A	N/A	N/A	N/A
PASQUOTANK	240.9	73	1042.1	85	11.6	42	5.8	27
PENDER	81.8	22	575.8	42	N/A	N/A	N/A	N/A
PERQUIMANS	85.6	25	899	73	N/A	N/A	N/A	N/A
PERSON	221.3	70	914.8	74	N/A	N/A	N/A	N/A
PITT	388.2	94	1659.4	101	8.6	34	11.1	39
POLK	65.5	15	308.8	10	N/A	N/A	N/A	N/A
RANDOLPH	99	29	480	26	1.6	3	1.6	1
RICHMOND	248.9	75	1550.1	100	15.5	49	15.5	45
ROBESON	456	97	1382.6	96	3.5	15	3.5	12
ROCKINGHAM	182.4	62	560	38	2.5	7	N/A	N/A
ROWAN	167.3	53	870.1	70	3.3	13	3.3	9
RUTHERFORD	255.7	76	572.4	40	N/A	N/A	3.4	11
SAMPSON	165.3	51	710.9	54	15	48	7.5	31
SCOTLAND	490.8	99	1376.5	95	13.5	46	N/A	N/A
STANLY	110.5	33	549.1	36	N/A	N/A	N/A	N/A
STOKES	60	13	330.2	14	4.9	21	N/A	N/A
SURRY	67.4	17	444.8	23	N/A	N/A	N/A	N/A
SWAIN	324.4	90	878.5	71	N/A	N/A	N/A	N/A
TRANSYLVANIA	40	8	257	5	6.4	27	N/A	N/A
TYRRELL	107	32	641.7	47	N/A	N/A	N/A	N/A
UNION	73.2	19	485.3	31	1	2	2.1	4
VANCE	490.6	98	1404.2	97	N/A	N/A	N/A	N/A

	Gonorrhea		Chlamydia		HIV		AIDS	
	Rate	Rank	Rate	Rank	Rank	Rate	Rank	Rate
WAKE	168.3	54	696.8	53	5.2	22	4.6	22
WARREN	169.5	55	688.1	52	N/A	N/A	11.5	40
WASHINGTON	205.3	67	994.9	81	18.3	51	N/A	N/A
WAYNE	306.8	83	972.7	77	7.6	29	7.6	32
WILKES	77.7	20	328	13	N/A	N/A	3.3	9
WILSON	312.1	86	852.5	68	16.4	50	11	37
YADKIN	94.1	28	298.1	9	N/A	N/A	N/A	N/A
YANCEY	55.4	12	177.3	1	N/A	N/A	N/A	N/A
North Carolina	**155.0**		**740.6**		**6.1**		**4.9**	
United States	**103.6**		**628.3**		**5.5**		**3.3**	

Notes: Gonorrhea and chlamydia are reported cases. HIV and AIDs are incidence rates. North Carolina and U.S. data: reported cases of gonorrhea and chlamydia are from 2012-2014; incidence of HIV and AIDS data are from 2014-2016. All county level data for reported cases of gonorrhea and chlamydia and incidence of HIV and AIDS are from 2017.
Source: IWPR compilation of data from the Centers for Disease Control and Prevention (2017d) and the North Carolina Department of Health and Human Services (2019).

Appendix Table 3. Mortality Rates (per 100,000) Among Women by Race and Ethnicity, North Carolina, 2016

	All Women	White	Black	Hispanic	Native American	Asian
Heart Disease	124.9	121.7	146.7	48.2	140.2	54.6
Stroke	42	40.4	50.3	20.2	35.5	42.2
Diabetes	19.1	14.8	38.1	9.9	44.6	11.8
Breast Cancer	21	19.5	28.8	9.4	17	13.5
Cervical Cancer	2.1	1.9	3.3	N/A	N/A	N/A
Ovarian Cancer	6.7	7	6.3	4.1	6.9	3.5
Uterine Cancer	2.3	1.8	4.3	N/A	N/A	N/A

Notes: Racial categories are non-Hispanic. Data for heart disease mortality and stroke mortality are from 2014-2016, date for diabetes are from 2012-2016, and data for breast, cervical, ovarian, and uterine cancer are from 2012-2015.
Source: IWPR compilation of data from the Centers for Disease Control and Prevention (2017d).

Appendix Table 4. Mortality Rates Among Women by Race and Ethnicity, United States, 2016

	All Women	White	Black	Hispanic	Native American	Asian
Heart Disease	131.5	133.5	170.7	92.7	118.1	68.5
Stroke	36.2	35.6	47.3	29.6	31	28.8
Diabetes	17.3	14.8	34	22	39.6	13.3
Breast Cancer	20.5	20.7	29.1	14.3	14.5	11.6
Cervical Cancer	2.3	2.1	3.7	2.6	2.5	1.8
Ovarian Cancer	7	7.5	6.4	5.4	5.9	4.4
Uterine Cancer	2.7	2.4	5.2	2.5	1.9	1.7

Notes: Racial categories are non-Hispanic. Data for heart disease mortality and stroke mortality are from 2014-2016, date for diabetes are from 2012-2016, and data for breast, cervical, ovarian, and uterine cancer are from 2012-2015.
Source: IWPR compilation of data from the Centers for Disease Control and Prevention (2017d).

Appendix Table 5. Percent of Women and Men Who Are Overweight or Obese, North Carolina and United States, 2017

	Women	Men	Total
North Carolina	62%	71%	67%
United States	59%	71%	65%

Source: IWPR analysis of Behavioral Risk Factor Surveillance System microdata, 2015-2017

Appendix Table 6. Percent of Women Who are Overweight or Obese by Race and Ethnicity, North Carolina and United States, 2017

	All Women	White	Hispanic	Black	Asian/ Pacific Islander	Native American	All Other Races/ Multiracial
North Carolina	62%	58%	64%	77%	35%	71%	55%
United States	59%	56%	67%	74%	32%	70%	58%

Notes: Racial categories are non-Hispanic.
Source: IWPR analysis of Behavioral Risk Factor Surveillance System microdata, 2015-2017.

Appendix Table 7. HIV and AIDS Infection Rates for Women by Race and Ethnicity, North Carolina and United States, 2016

	North Carolina		Unites States	
	HIV	AIDS	HIV	AIDS
All women	6.09	4.74	5.49	3.28
White	1.58	0.97	1.60	0.80
Black	19.75	16.57	26.28	16.15
Hispanic	6.21	4.44	5.70	3.30
Asian	4.86	1.14	1.70	0.70
Native American	4.05	4.05	4.50	2.90

Notes: Data are per 100,000 population and include women aged 13 and older. Racial categories are non-Hispanic.
Source: IWPR compilation of data from the Centers for Disease Control and Prevention (2017d).

Appendix Table 8. Reproductive Health by Race and Ethnicity, North Carolina and United States

	North Carolina				United States			
	[a] Fertility Rate	[a] Low Birth Weight	[b] Infant Mortality	[c] Teenage Pregnancy	[a] Fertility Rate	[a] Low Birth Weight	[b] Infant Mortality	[c] Teenage Pregnancy
All Women	60.7	9.2%	7.2	28.1	62.5	8.2%	5.8	20.3%
White	56.4	7.6%	5.5	19.4	58.6	7.0%	5.0	14.3%
Black	58.7	14.2%	12.2	38.0	63.4	13.7%	11.2	29.3%
Hispanic	87.2	7.3%	5.6	46.9	74.5	7.3%	5.0	31.9%
Native American	61.7	N/A	9.0	48.8	63.9	N/A	8.1	35.1%
Asian	66.4	N/A	4.5	N/A	59.4	N/A	4.0	3.9%
Other	N/A	N/A	N/A	13.8	N/A	N/A	N/A	N/A

Note: Racial categories are non-Hispanic. Rates are per fertility and infant mortality are per 1,000 women. Fertility rate is for women ages 15-44, teenage pregnancy defined as those aged 15-19 years old. Data are from 2013-2015 for infant mortality and 2014-2016 for all other indicators.
Source: [a] IWPR compilation of data from the Centers for Disease Control and Prevention data (2017d), [b] National Vital Statistic Report (Martin et al. 2018), [c] North Carolina Department of Health and Human Services.

Appendix Table 9. Share of Women Who Had a Pap Smear or Mammogram by Race and Ethnicity, North Carolina and United States, 2016

	North Carolina		United States	
	[a] Pap Smear	[b] Mammogram	[a] Pap Smear	[b] Mammogram
All Women	77%	80%	75%	79%
White	74%	78%	71%	78%
Black	82%	85%	84%	85%
Hispanic	87%	N/A	85%	82%
Native American	N/A	N/A	75%	77%
Asian/Pacific Islander	N/A	N/A	82%	82%
All Other Races/ Multiracial	N/A	N/A	75%	70%

Note: Racial categories are non-Hispanic. [a] Women who reported having a pap smear in the last three years. [b] Women who reported having a mammogram in the past two years.
Source: IWPR analysis of Behavioral Risk Factor Surveillance System microdata, 2014-2016.

Appendix Table 10. Suicide Mortality Rates (per 100,000) Among Women by State, 2017

State	Rate	Rank
Alabama	6.1	22
Alaska	12.5	50
Arizona	8.4	36
Arkansas	9.1	41
California	4.7	7
Colorado	9.3	42
Connecticut	5.3	10
Delaware	4.5	6
District of Columbia	2.1	1
Florida	6.7	26
Georgia	5.9	17
Hawaii	5.9	17
Idaho	9.7	43
Illinois	4.7	7
Indiana	5.8	14
Iowa	6.0	21
Kansas	7.8	34
Kentucky	6.8	27
Louisiana	6.3	23
Maine	7.0	28
Maryland	3.9	3
Massachusetts	4.3	5
Michigan	5.9	17
Minnesota	5.8	14
Mississippi	5.5	12
Missouri	7.7	33
Montana	11.5	48
Nevada	10.4	45
New Hampshire	8.7	37
New Jersey	3.8	2
New Mexico	10.6	46
New York	3.9	3
North Carolina	6.3	23
North Dakota	7.8	34
Ohio	5.8	14
Oklahoma	8.9	40
Oregon	8.8	39
Pennsylvania	6.5	25
Rhode Island	5.4	11
South Carolina	7.3	30
South Dakota	10.2	44
Tennessee	7.0	28
Texas	5.6	13
Utah	11.2	47
Vermont	7.3	30
Virginia	5.9	17
Washington	7.5	32
West Virginia	8.7	37
Wisconsin	6.7	26
Wyoming	11.5	48
United States	**6.1**	

Notes: Data from 2015-2017. Mortality rates are average annual per 100,000 population, include women of all ages, and are age-adjusted to the 2000 U.S. standard population.
Source: IWPR compilation of data from the Centers for Disease Control and Prevention (2018d).

Appendix Table 11. Suicide Mortality Rates (per 100,000) Among Women by Race and Ethnicity, North Carolina and United States, 2017

	All Women	White	Black	Hispanic	American Indian/ Alaska Native	Asian/Pacific Islander
North Carolina	6.3	8.4	2.0	2.6	N/A	4.5
United States	6.1	7.9	2.4	2.6	10.5	3.8

Note: Three-year (2015-2017) data used. Mortality rates are average annual per 100,000 population, include women of all ages, and are age-adjusted to the 2000 U.S. standard population. Racial categories are non-Hispanic. Data are not available for Native American women or those who identify as another race or multiracial.
Source: IWPR compilation of data from the Centers for Disease Control and Prevention (2018d).

Appendix Table 12. Average Number of Days per Month that Mental Health is Not Good Among Women by Race and Ethnicity, North Carolina and United States, 2015

	All Women	White	Black	Hispanic	Asian/ Pacific Islander	Native American	All Other Races/ Multiracial
North Carolina	4.2	4.4	3.9	3.1	1.5	7.5	5.7
United States	4.2	4.2	4.6	4.1	2.7	6.4	5.7

Note: Racial categories are non-Hispanic. Includes those aged 18 and up. Average number of days per month.
Source: IWPR analysis of Behavioral Risk Factor Surveillance System microdata, 2013-2015.

Appendix Table 13. Number of Clients Served by Domestic Violence and Sexual Assault Proframss in North Carolina by Race and Ethnicity, 2018

	Domestic Violence Program		Sexual Assault Program	
	Number	Percent	Number	Percent
Women	43,964	84%	9,176	85%
Men	8,237	13%	1,505	14%
White	26,693	51%	5,812	54%
Black	15,237	29%	2,271	21%
Hispanic	4,996	10%	1,017	9%
American Indian	612	1%	133	1%
Asian	386	1%	90	1%
Other	4,263	8%	1,457	14%
Total Clients Served	52,187		10,780	

Note: Racial categories are non-Hispanic.
Source: IWPR compilation of data from the North Carolina Administration, 2017-2018.

Appendix III. Sexual Assault & Domestic Violence Programs Funded by the North Carolina Council for Women and Youth Involvement (FY 2018-2019)

Sexual Assault Programs

County	Agency
ALAMANCE	Cross Roads: Sexual Assault Response and Resource Center
ALEXANDER	Shelter Home of Caldwell County, Inc.
ALLEGHANY	Alleghany Partnership for Children d/b/a D.A.N.A. (Domestic Abuse is not Acceptable)
ANSON	Anson County Domestic Violence Coalition, Inc.
ASHE	Partnership of Ashe
AVERY	Opposing Abuse with Service, Information and Shelter, Inc.
BEAUFORT	REAL Crisis Intervention, Inc.
BERTIE	Roanoke Chowan SAFE
BLADEN	Families First, Inc.
BRUNSWICK	Coastal Horizon Center, Inc.
BUNCOMBE	Our Voice, Inc.
BURKE	Options
CABARRUS	Esther House of Stanly County, Inc.
CALDWELL	Shelter Home of Caldwell County, Inc.
CAMDEN/CURRITUCK	Albemarle Hopeline, Inc.
CARTERET	Carteret County Rape Crisis Program
CASWELL	Cross Roads: Sexual Assault and Resource Center
CATAWBA	Family Guidance Center , Inc.
CHEROKEE	Reach of Cherokee County, Inc.
CHOWAN/PERQUIMANS	Albemarle Hopeline, Inc.
CLAY	REACH of Clay County
CLEVELAND	Cleveland County Abuse Prevention Council, Inc.
COLUMBUS	Families First, Inc.
CRAVEN	Promise Place
CUMBERLAND	Rape Crisis Volunteers of Cumberland County, Inc.

DARE	Outer Banks Hotline, Inc.
DAVIDSON	Family Services of Davidson County, Inc.
DAVIE	Davie Center for Violence Prevention, Inc.
DUPLIN	SAFE in Lenoir Co., Inc.
DURHAM	Durham Crisis and Response Center
EDGECOMBE	My Sister's House, Inc.
FORSYTH	Family Services, Inc.
FRANKLIN	Safe Space, Inc.
GASTON	Phoenix Counseling Center
GATES	Roanoke Chowan SAFE
GRANVILLE	Families Living Violence-Free
GREENE	SAFE in Lenoir Co., Inc.
GUILFORD	Family Service of the Piedmont, Inc.
HALIFAX	Hannah's Place, Inc.
HARNETT	Sexual Assault Family Emergency of Harnett County, Inc.
HAYWOOD	REACH of Haywood County, Inc.
HENDERSON	Safelight, Inc. d/b/a Mainstay, Inc.
HERTFORD	Roanoke Chowan SAFE
HOKE	Hoke County Domestic Violence & Sexual Assault Center Inc.
HYDE	Hyde County Hotline, Inc.
IREDELL	Diakonos, Inc.
JACKSON	Resources, Education, Assistance, Counseling and Housing of Macon County, Inc.
JOHNSTON	Harbor, Inc.
JONES	Promise Place
LEE	HAVEN in Lee County, Inc.
LENOIR	SAFE in Lenoir Co., Inc.
LINCOLN	Phoenix Counseling Center
MACON	Resources, Education, Assistance, Counseling and Housing of Macon County, Inc.
MADISON	My Sister’s Place of Madison, Inc.
MARTIN	REAL Crisis Intervention, Inc.
MCDOWELL	New Hope of McDowell
MECKLENBURG	Safe Alliance, Inc.
MITCHELL	Mitchell County Safeplace, Inc.
MONTGOMERY	Randolph County Family Crisis Center, Inc.
MOORE	Friend to Friend
NASH	My Sister's House, Inc.
NEW HANOVER	Coastal Horizon Center, Inc.
NORTHAMPTON	Roanoke Chowan SAFE

ONSLOW	Onslow Women's Center
ORANGE	Orange County Rape Crisis Center
PAMLICO	Promise Place
PASQUOTANK	Albemarle Hopeline, Inc.
PENDER (SA)	Coastal Horizons Center, Inc.
PERSON	Safe Haven of Person County, Inc.
PITT	REAL Crisis Intervention, Inc.
POLK	Steps to H.O.P.E., Inc.
RANDOLPH (Archdale/Trinity)	Randolph County Family Crisis Center, Inc.
RANDOLPH (Asheboro)	Randolph County Family Crisis Center, Inc.
RICHMOND	New Horizons: Life and Family Services
ROBESON	Rape Crisis Center of Robeson County
ROCKINGHAM	Help, Incorporated: Center Against Violence
ROWAN	Family Crisis Council Of Rowan, Inc.
RUTHERFORD	Family Resources of Rutherford County, Inc.
SAMPSON	U CARE, Inc.
SCOTLAND	Domestic Violence & Rape Crisis Center of Scotland County, Inc.
STANLY	Esther House of Stanly County, Inc.
STATEWIDE	North Carolina Coalition Against Sexual Assault
STOKES	Yadkin Valley Economic Development District, Inc. d/b/a Stokes Family Violence Services
SURRY	Yadkin Valley Economic Development District, Inc. d/b/a Surry Country Domestic Violence and Sexual Assault Program
SWAIN	Swain/Qualla SAFE, Inc.
TRANSYLVANIA	SAFE, Inc. of Transylvania County
TYRRELL	Inner Banks Hotline
UNION	Turning Point, Inc.
VANCE	Infinite Possibilities, Inc.
WAKE (Cary)	The Family Violence Prevention Center d/b/a InterAct
WAKE (Raleigh)	The Family Violence Prevention Center d/b/a InterAct
WARREN	Infinite Possibilities, Inc.
WASHINGTON	REAL Crisis Intervention, Inc.
WATAUGA	Opposing Abuse with Service, Information and Shelter, Inc.
WAYNE	Wayne Uplift Resource Association, Inc.
WILKES	SAFE, Inc.
WILSON	Wesley Shelter, Inc.
YADKIN	Yadkin Valley Economic Development District, Inc. d/b/a Yadkin County Family Domestic Violence and Sexual Assault Program
YANCEY	Family Violence Coalition of Yancey County, Inc.

Domestic Violence Programs

County	Agency
ALAMANCE	Family Abuse Services of Alamance Co., Inc.
ALEXANDER	Shelter Home of Caldwell County, Inc.
ALLEGHANY	Alleghany Partnership for Children d/b/a D.A.N.A. (Domestic Abuse is Not Acceptable)
ANSON	Anson County Domestic Violence Coalition, Inc.
ASHE	Partnership of Ashe
AVERY	Opposing Abuse with Service, Information and Shelter, Inc.
BEAUFORT	Ruth's House, Inc.
BERTIE	Roanoke-Chowan SAFE
BLADEN	Families First, Inc.
BRUNSWICK	Hope Harbor Home, Inc.
BUNCOMBE	Helpmate, Inc.
BURKE	Options
CABARRUS	Cabarrus Victims Assistance Network (CVAN)
CALDWELL	Shelter Home of Caldwell County, Inc.
CAMDEN	Albemarle Hopeline, Inc.
CARTERET	Carteret Co. Domestic Violence Program, Inc.
CASWELL	Family Services of Caswell County d/b/a “House of Ester”
CATAWBA	Family Guidance Center, Inc.
CHEROKEE	REACH of Cherokee County, Inc.
CHOWAN	Albemarle Hopeline, Inc.
CLAY	REACH of Clay County, Inc.
CLEVELAND	Cleveland County Abuse Prevention Council, Inc.
COLUMBUS	Families First, Inc.
CRAVEN	Coastal Women's Shelter, Inc.
CUMBERLAND	CARE Family Violence Center
CURRITUCK	Albemarle Hopeline
DARE	Outer Banks Hotline, Inc.
DAVIDSON	Family Services of Davidson County, Inc.
DAVIE	Davie Center for Violence Prevention
DUPLIN	SAFE in Lenoir Co., Inc.
DURHAM	Durham Crisis Response Center
EDGECOMBE	My Sister's House, Inc.

FORSYTH	Family Services, Inc.
FORSYTH	Next Step Ministries
FRANKLIN	Safe Space, Inc.
GASTON	The Cathy Mabry Cloninger Center: A Domestic Violence Shelter
GATES	Albemarle Hopeline
GATES	Roanoke-Chowan SAFE
GRANVILLE	Families Living Violence-Free
GREENE	SAFE in Lenoir Co., Inc.
GUILFORD (Greensboro)	Family Service of the Piedmont, Inc.
GUILFORD (High Point)	Family Service of the Piedmont, Inc.
HALIFAX	Hannah's Place, Inc.
HARNETT	Sexual Assault Family Emergency of Harnett County, Inc.
HAYWOOD	REACH of Haywood County, Inc.
HENDERSON	Safelight, Inc. DBA Mainstay, Inc.
HERTFORD	Roanoke-Chowan SAFE
HOKE	Hoke County Domestic Violence & Sexual Assault Center, Inc.
HYDE	Hyde County Hotline, Inc.
IREDELL	Diakonos, Inc.
JACKSON	Resources, Education, Assistance, Counseling and Housing of Macon County, Inc.
JOHNSTON	Harbor, Inc.
JONES	Coastal Women's Shelter
LEE	HAVEN in Lee County, Inc.
LENOIR	SAFE in Lenoir Co., Inc.
LINCOLN	Lincoln County Coalition Against Domestic Violence
MACON	Resources, Education, Assistance, Counseling and Housing of Macon County, Inc.
MADISON	My Sister’s Place of Madison, Inc.
MARTIN	Center for Family Violence Prevention
MCDOWELL	New Hope of McDowell, Inc.
MECKLENBURG	Safe Alliance
MITCHELL	Mitchell County Safeplace, Inc.
MONTGOMERY	Randolph County Family Crisis Center, Inc.
MOORE	Friend to Friend
NASH	My Sister's House, Inc.
NEW HANOVER	Domestic Violence Shelter and Services, Inc.
NORTHAMPTON	Roanoke-Chowan SAFE

ONSLOW	Onslow Women's Center
ORANGE	The Women's Center, Inc. d/b/a Compass Center for Women and Families
PAMLICO	Coastal Women's Shelter
PASQUOTANK	Albemarle Hopeline, Inc.
PENDER	Safe Haven of Pender County
PERQUIMANS	Albemarle Hopeline, Inc.
PERSON	Safe Haven of Person County, Inc.
PITT	Center for Family Violence Prevention
POLK	Steps to HOPE, Inc.
RANDOLPH (Archdale/Trinity)	Randolph County Family Crisis Center, Inc.
RANDOLPH (Asheboro)	Randolph County Family Crisis Center, Inc.
RICHMOND	New Horizons: Life and Family Services
ROBESON	Robeson County Committee on Domestic Violence, Inc.
ROCKINGHAM	Help, Incorporated: Center Against Violence
ROWAN	Family Crisis Council Of Rowan, Inc.
RUTHERFORD	Family Resources of Rutherford County, Inc.
SAMPSON	U CARE, Inc.
SCOTLAND	Domestic Violence & Rape Crisis Center of Scotland County, Inc.
STANLY	Esther House of Stanly County, Inc.
STATEWIDE	North Carolina Coalition Against Domestic Violence
STOKES	Yadkin Valley Economic Development District/YVEDDI/ Stokes Family Violence Services
SURRY	Yadkin Valley Economic Development District, Inc. d/b/a Surry County Domestic Violence & Sexual Assault Program
SWAIN	Swain/Qualla SAFE, Inc.
TRANSYLVANIA	Shelter Available for Family Emergency (SAFE), Inc. of Transylvania County
TYRRELL	Inner Banks Hotline
UNION	Turning Point, Inc.
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WAKE (Raleigh)	The Family Violence Prevention Center d/b/a InterAct
WARREN	Infinite Possibilities, Inc.
WASHINGTON	Center for Family Violence Prevention
WATAUGA	Opposing Abuse with Service, Information and Shelter, Inc.
WAYNE	Wayne Uplift Resource Association, Inc.
WILKES	SAFE in Wilkes County, Inc.

WILSON	Wesley Shelter, Inc.
YADKIN	Yadkin Valley Economic Development District, Inc. /YVEDDI/Yadkin County Domestic Violence and Sexual Assault Program
YANCEY	Family Violence Coalition of Yancey County, Inc.

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