

**Healthy North Carolina 2020 & 2011 County Health Rankings Crosswalk**

<b>CHR Health Outcomes &amp; Factors</b>	<b>CHR Specific Measures</b>	<b>Healthy North Carolina 2020 Focus Area</b>	<b>Healthy North Carolina 2020 Objective</b>	<b>Current Data</b>	<b>Target 2020</b>	<b>Notes</b>
<b>Mortality</b>	Premature death: Years of potential life lost before age 75 per 100,000 population (YPLL-75)	N/A	N/A	N/A	N/A	CHR data comes from National Center for Health Statistics and is age-adjusted. 2011 Rankings use data from 2005-2007. YPLL-75 is also used in America's Health Rankings (AHR).
N/A	N/A	<b>Cross-cutting</b>	Increase average life expectancy (years)	77.5	79.5	HNC uses 2008 data from SCHS & US Census. (Both these measures focus on length of life, but they are measured quite differently and are not comparable.)
N/A	N/A	<b>Chronic Disease</b>	Reduce the cardiovascular disease mortality rate (per 100,000 population)	256.6	161.5	HNC uses 2008 data from SCHS & CDC Wonder. Cardiovascular disease mortality rate is also used in AHR.
N/A	N/A	<b>Chronic Disease</b>	Reduce the colorectal cancer mortality rate (per 100,000 population)	15.7	10.1	HNC uses 2008 data from SCHS (Central Cancer Registry) & CDC Wonder.
N/A	N/A	<b>Environmental Health</b>	Reduce the mortality rate from work-related injuries (per 100,000 population)	3.9	3.5	HNC uses CFOI, Bureau of Labor Statistics data from 2008. Occupational fatality rate is also included in AHR.
N/A	N/A	<b>Infectious Disease/ Foodborne Illness</b>	Reduce the pneumonia and influenza mortality rate (per 100,000 population)	19.5	13.5	HNC uses 2008 data from SCHS & CDC Wonder.
N/A	N/A	<b>Injury</b>	Reduce unintentional falls mortality rate (per 100,000 population)	8.1	5.3	HNC uses 2008 data from SCHS & CDC Wonder (Injury and Violence Prevention Branch).
N/A	N/A	<b>Injury</b>	Reduce the unintentional poisoning mortality rate (per 100,000 population)	11	9.9	HNC uses 2008 data from SCHS & CDC Wonder (Injury and Violence Prevention Branch).
N/A	N/A	<b>Maternal and Infant Health</b>	Reduce the infant mortality rate (per 1,000 live births)	8.2	6.3	HNC uses 2008 data from SCHS & CDC. Infant mortality rate is also used in America's Health Rankings. CHR does not include this measure, but it is somewhat reflected in the YPLL-75, as infant deaths are weighted much more heavily than elderly deaths in this statistic.
N/A	N/A	<b>Mental Health</b>	Reduce the suicide rate (per 100,000 population)	12.4	8.3	HNC uses 2008 data from SCHS & CDC Wonder.
<b>Morbidity**</b>	% of adults reporting Fair or Poor Health	<b>Cross-cutting**</b>	Increase the % of adults reporting Good, Very good, or Excellent Health	81.9%	90.1%	CHR and HNC 2020 both use BRFSS data but cite the opposite %. CHR uses age-adjusted data from 2003-09 while HNC uses 2009 data. The CHR National Benchmark (the mark to reach, or better, to be in the top 10% of US counties) for this measure is 10% of adults reporting Fair or Poor Health (i.e. 90% reporting Good, Very Good, or Excellent Health - essentially the same as NC's 2020 target).
<b>Morbidity**</b>	Poor mental health days (average number reported in the past 30 days, for adults)	<b>Mental Health**</b>	Decrease the average number of poor mental health days among adults in the past 30 days	3.4	2.8	CHR and HNC both use BRFSS data. CHR uses age-adjusted data from 2003-09 while HNC uses 2008 data. This measure is included in America's Health Rankings. The CHR National Benchmark (the mark to reach, or better, to be in the top 10% of US counties) for this measure is 2.6 days.

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<b>Morbidity</b>	Poor physical health days (average number reported in the past 30 days, for adults)	N/A	N/A	N/A	N/A	CHR uses age-adjusted data from BRFSS 2003-09. Poor physical health days is included as a measure in AHR.
<b>Morbidity</b>	Low birthweight: % of live births <2500 grams	N/A	N/A	N/A	N/A	CHR uses National Center for Health Statistics data from 2001-07.
<b>Additional Measure: Health Outcomes**</b>	% Diabetic: % of adults aged 20 and above with diagnosed diabetes	<b>Chronic Disease**</b>	Decrease the % of adults (18 and older) with diabetes	9.6%	8.6%	CHR and HNC both use BRFSS data. CHR's data for 2008 is calculated by the CDC National Center for Chronic Disease Prevention and Health Promotion, Division of Diabetes Translation, by modeling three years of BRFSS data (2007-09). HNC uses 2009 data. Adults with diabetes is also included in AHR.
<b>Tobacco Use**</b>	Adult smoking: % of adult smokers who have smoked at least 100 cigarettes in their lifetime and are currently smoking	<b>Tobacco Use**</b>	Decrease the % of adults who are current smokers	20.3%	13.0%	Both CHR and HNC use BRFSS data. As BRFSS only asks the Current Smoking question to people who have answered yes to the Smoking 100+ Cigarettes in their Lifetime question, the CHR & HNC data should be comparable. CHR uses 2003-09 data while HNC uses 2009 data. This measure is also included in America's Health Rankings. The CHR National Benchmark (the mark to reach, or better, to be in the top 10% of US counties) for this measure is 15%.
N/A	N/A	<b>Maternal and Infant Health</b>	Reduce the % of women who smoke during pregnancy	10.4%	6.8%	HNC uses 2008 data from SCHS & CDC Wonder.
N/A	N/A	<b>Tobacco Use</b>	Decrease the % of high school students reporting current use of any tobacco product	25.8%	15.0%	HNC uses 2009 data from the Youth Tobacco Survey and the CDC's Tobacco Prevention and Control Branch.
N/A	N/A	<b>Tobacco Use</b>	Decrease the % of people exposed to secondhand smoke in the workplace in the past 7 days	14.6%	0.0%	HNC uses 2008 data from SCHS and BRFSS.
<b>Diet and Exercise</b>	Adult obesity: % of adults aged 20 and older reporting a Body Mass Index greater than or equal to 30kg/m <sup>2</sup>	<b>Cross-cutting</b>	Increase the % of adults who are neither overweight nor obese	34.6%	38.1%	CHR's data for 2008 is calculated by the CDC National Center for Chronic Disease Prevention and Health Promotion, Division of Diabetes Translation, by modeling multiple years of BRFSS data. HNC uses 2009 data. The measures are not comparable because CHR only includes obesity and not overweight, while HNC includes both. Obesity estimates (for the entire population) are included as a measure in America's Health Rankings.
<b>Additional Measure: Health Behaviors</b>	Physical inactivity: % of adults aged 20 and over reporting no leisure time physical activity	<b>Physical activity and nutrition</b>	Increase the % of adults getting the recommended amount of physical activity	46.4%	60.6%	CHR's data for 2008 is calculated by the CDC National Center for Chronic Disease Prevention and Health Promotion, Division of Diabetes Translation, by modeling multiple years of BRFSS data. HNC uses 2009 data. This data is not comparable, even as opposite percentages, because there is a missing category of people who get some physical activity but not as much as the recommended amount.
N/A	N/A	<b>Physical activity and nutrition</b>	Increase the % of adults who report they consume 5 or more servings of fruits and vegetables per day	20.6%	29.3%	HNC uses 2009 BRFSS data.
N/A	N/A	<b>Physical activity and nutrition</b>	Increase the % of high school students who are neither overweight nor obese	72.0%	79.2%	HNC uses 2009 data from the Youth Risk Behavioral Factor Surveillance System (YRBSS).

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<b>Alcohol Use</b>	Excessive drinking: % of adults that report either binge drinking or heavy drinking	N/A	N/A	N/A	N/A	CHR uses BRFSS data from 2003-09. Binge drinking among adults is included in AHR.
<b>Alcohol Use</b>	Motor vehicle crash death rate (per 100,000 population)	<b>Substance Abuse</b>	Reduce the % of traffic crashes that are alcohol-related	5.7%	4.7%	CHR uses National Vital Statistics System (NVSS) data that is calculated by the National Center for Health Statistics. HNC uses data from NC Alcohol Facts and UNC Highway Safety Research Center. CHR data is from 2001-07 while HNC data is from 2009. These data are not directly comparable. (CHR uses its Motor vehicle crash death rate measure as a crude estimate of alcohol use, as researchers estimate approximately half of all fatal crashes include alcohol as a contributing factor.)
N/A	N/A	<b>Substance Abuse</b>	Reduce the % of high school students who had alcohol on one or more of the past 30 days	35.0%	26.4%	HNC data is from the 2009 YRBSS.
N/A	N/A	<b>Substance Abuse</b>	Reduce the % of individuals aged 12 and older reporting any illicit drug use in the past 30 days	7.8%	6.6%	HNC uses National Survey on Drug Use and Health data from 2007-08.
<b>Unsafe Sex</b>	Sexually Transmitted Infections: Chlamydia incidence rate (the number of new cases reported per 100,000 population)	<b>Sexually Transmitted Diseases/ Unintended Pregnancy</b>	Reduce the % of positive results for Chlamydia for individuals aged 15-24	9.7%	8.7%	CHR uses 2008 data from the CDC's National Center for Hep, HIV STD and TB Prevention. HNC uses 2009 data from the Infertility Prevention Program (Communicable Disease Branch). These data are not comparable as CHR uses a rate for the entire population and HNC uses a % of 15-24 year olds. Also, not sure if "positive results" is equivalent to "new cases" for chlamydia.
<b>Unsafe Sex</b>	Teen birth rate (number of births per 1,000 female population aged 15-19)	<b>Sexually Transmitted Diseases/ Unintended Pregnancy</b>	Decrease the % of pregnancies among adults that are unintended	39.8%	30.9%	CHR uses 2001-07 data from the National Center for Health Statistics. HNC uses 2007 CPONDER data, which is from the CDC's Pregnancy Risk Assessment Monitoring System surveys. As most teen pregnancies are unintended, these two indicators are related. However, the data is not comparable as HNC includes a broader population and the types of measurements differ.
<b>Additional Measure: Health Outcomes</b>	HIV prevalence rate: Number of persons living with a diagnosis of HIV per 100,000 population	<b>Sexually Transmitted Diseases/ Unintended Pregnancy</b>	Reduce the rate of new HIV infection diagnoses (per 100,000 population)	24.7	22.2	CHR uses 2007 data from the CDC's National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. HNC uses 2008 data from the CDC. These data are not comparable because CHR measures prevalence while HNC measures incidence.
<b>Access to Care**</b>	Uninsured adults: % of the adult population under age 65 without health insurance	<b>Cross-cutting**</b>	Reduce the % of non-elderly uninsured individuals (aged less than 65 years)	20.4%	8.0%	CHR uses the 2007 Small Area Health Insurance Estimates (SAHIE) from the US Census. HNC uses 2009 data from the Current Population Survey of the US Census Bureau. These measures are comparable. The CHR National Benchmark (the mark to reach, or better, to be in the top 10% of US counties) for this measure is 13%. America's Health Rankings includes lack of health insurance (for the entire population) in its measures.
<b>Access to Care</b>	Ratio of population to primary care physicians	N/A	N/A	N/A	N/A	CHR uses 2008 data from HRSA (Health Resources & Services Administration). AHR uses the inverse of the CHR measure - number of primary care physicians per 100,000 population.
N/A	N/A	<b>Infectious Disease/Food borne Illness</b>	Increase the % of children aged 19-35 months who receive the recommended vaccines	77.3%	91.3%	HNC uses 2008 data from the National Immunization Survey from the CDC. This measure is also used in AHR. (CHR does not include this measure because the data are not available nationally at the county level.)

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N/A	N/A	<b>Oral Health</b>	Increase the % of children (aged 1-5) enrolled in Medicaid who received any dental service during the previous 12 months	46.9%	56.4%	HNC uses 2008 data from the CMS Form 416 Report.

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<b>Additional Measures: Health Care</b>	Ratio of population to mental health providers	<b>Mental Health</b>	Reduce the rate of mental health-related visits to the ER (per 10,000 population)	92	82.8	CHR uses 2008 data from HRSA (Health Resources & Services Administration). HNC uses 2008 data from the NC DETECT (Disease Event Tracking and Epidemiologic Collection Tool). These data are not comparable as CHR measures availability of providers while HNC measures ER visits.
<b>Quality of Care</b>	Preventable hospital stays: Hospitalization rate for ambulatory-sensitive conditions per 1,000 Medicare enrollees	N/A	N/A	N/A	N/A	CHR uses 2006-07 Medicare data from the Dartmouth Institute. This measure is also found in AHR.
<b>Quality of Care</b>	Diabetic screening: % of diabetic Medicare enrollees that receive HbA1c screening	N/A	N/A	N/A	N/A	CHR uses 2006-07 Medicare data from the Dartmouth Institute.
<b>Quality of Care</b>	Mammography screening: % of female Medicare enrollees that receive mammography screening	N/A	N/A	N/A	N/A	CHR uses 2006-07 Medicare data from the Dartmouth Institute.
<b>Education**</b>	High school graduation: Ninth grade cohort that graduates high school in 4 years	<b>Social Determinants of Health**</b>	Increase the four-year high school graduation rate	71.8%	94.6%	CHR generally uses NCES data from 2006-07 for this measure but NC is one of six states where state data sources were used in the Rankings. The NC data used in CHR is from the 2009-10 school year. HNC uses 2008-09 data from NC DPI and NCES. These data are comparable. The CHR National Benchmark (the mark to reach, or better, to be in the top 10% of US counties) for this measure is 92%. Four-year HS graduation rate is also included in AHR.
<b>Education</b>	Some college: % of the population aged 25-44 with some post-secondary education	N/A	N/A	N/A	N/A	CHR uses American Community Survey 5-year estimates from 2005-09.
<b>Employment</b>	Unemployment: % of population aged 16 and older unemployed but seeking work	N/A	N/A	N/A	N/A	CHR uses 2009 data from the Bureau of Labor Statistics.
<b>Income</b>	Children in poverty: % of children (less than 18 years old) in poverty	<b>Social Determinants of Health</b>	Decrease the % of individuals living in poverty	16.9%	12.5%	CHR uses the 2008 Small Area Income and Poverty Estimates (SAIPE) data from the US Census. HNC uses 2009 data from the Current Population Survey from the US Census Bureau. The data is not directly comparable because CHR includes only children while HNC includes the entire population. AHR includes the % of Children in Households in Poverty in its rankings.
<b>Additional Measure: Social &amp; Economic Factors</b>	High housing costs: % of household units with housing costs greater than or equal to 30% of income	<b>Social Determinants of Health</b>	Decrease the % of people spending more than 30% of their income on rental housing	41.8%	36.1%	CHR and HNC both use data from the American Community Survey (US Census Bureau). CHR uses 5-year estimates from 2005-09, while HNC uses 2008 data. These measures are very similar but may not be comparable as CHR measures % of household units and HNC measures % of people. Also, CHR includes housing costs greater than or equal to 30% while HNC only includes costs greater than 30%.
<b>Family &amp; Social Support</b>	Inadequate social support: % of adults without social/emotional support	N/A	N/A	N/A	N/A	CHR uses 2005-09 BRFSS data.
<b>Family &amp; Social Support</b>	% of all households that are single-parent households	N/A	N/A	N/A	N/A	CHR uses 2005-09 American Community Survey data.

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<b>Community Safety**</b>	Violent crime or Homicide rate (per 100,000 population)	<b>Injury**</b>	Reduce the homicide rate (per 100,000 population)	7.5	6.7	CHR uses Homicide rate as a measure for some states, including NC, when Violent crime data is not available. The homicide rate data comes from the National Center for Health Statistics for the years 2001-07 and is age-adjusted. HNC uses SCHS and CDC Wonder (Injury and Violence Prevention Branch) data from 2008. These data are comparable. The CHR National Benchmark (the mark to reach, or better, to be in the top 10% of US counties) for the homicide rate measure is 1. (Violent crime rates are used in AHR.)
<b>Environmental Quality</b>	Annual number of unhealthy air quality days due to fine particulate matter	N/A	N/A	N/A	N/A	CHR uses 2006 data from the EPA/CDC. AHR includes the average amount of fine particulate matter exposure to the general public in their rankings.
<b>Environmental Quality</b>	Annual number of unhealthy air quality days due to ozone	<b>Environmental Health</b>	Increase the % of air monitor sites meeting the current ozone standard of 0.075 ppm	62.5%	100.0%	CHR uses 2006 data from the EPA/CDC. HNC uses 2007-09 from the NC Department of Environment and Natural Resources (DENR) Division of Air Quality. These data are not comparable - unhealthy days vs healthy sites.
N/A	N/A	<b>Environmental Health</b>	Increase the % of the population being served by community water systems with no maximum contaminant level violations	92.2%	95.0%	HNC uses 2009 data from the NC DENR Public Water Supply Section.
<b>Built Environment</b>	Access to healthy foods: % of residential zip codes in a county without a "Healthy food outlet" (grocery store, farmers' market, or produce stand)	N/A	N/A	N/A	N/A	CHR uses Census Zip Code Business Patterns data from 2008.
<b>Built Environment</b>	Access to recreational facilities: Rate of recreational facilities (per 100,000 population)	N/A	N/A	N/A	N/A	CHR uses Census County Business Patterns data from 2008.
N/A	N/A	<b>Maternal and Infant Health</b>	Reduce the infant mortality racial disparity between whites and African Americans	2.45	1.92	HNC uses SCHS and CDC data from 2008.
N/A	N/A	<b>Infectious Disease/Food borne Illness</b>	Decrease the average number of critical violations per restaurant/food stand	6.1	5.5	HNC uses 2009 data from the NC DENR Food Protection Branch.
N/A	N/A	<b>Oral Health</b>	Decrease the average number of decayed, missing or filled teeth among kindergartners	1.5	1.1	HNC uses NC Department of Health and Human Services Oral Health Section data from 2008-09.
N/A	N/A	<b>Oral Health</b>	Decrease the % of adults who have had permanent teeth removed due to tooth decay or gum disease	47.8%	38.4%	HNC uses BRFSS data (SCHS, CDC) from 2008.
<b>Additional Measure: Health Behaviors</b>	Binge drinking: % of adults that report binge drinking (more than 4 drinks for women or 5 drinks for men on a single occasion) in the past 30 days	N/A	N/A	N/A	N/A	CHR uses BRFSS data from 2003-09. Binge drinking among adults is included in AHR.
<b>Additional Measure: Social &amp; Economic Factors</b>	Median household income in 2008	N/A	N/A	N/A	N/A	CHR data is for 2008 and comes from the US Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program.
<b>Additional Measure: Social &amp; Economic Factors</b>	% of children enrolled in public schools that are eligible for free lunch	N/A	N/A	N/A	N/A	CHR uses 2006 data from the United States Department of Agriculture's Food Environment Atlas, which for this measure uses data from National Center of Education Statistics Common Core of Data.

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<b>Additional Measure: Social &amp; Economic Factors</b>	% Illiterate: % of population aged 16 and older that lacks basic prose literacy skills	N/A	N/A	N/A	N/A	CHR uses data from the National Center for Education Statistics which is based on the 2003 National Assessment of Adult Literacy.
<b>Additional Measure: Physical Environment</b> (Also a Former CHR Measure from 2010)	Liquor store density: Number of liquor stores per 100,000 population	N/A	N/A	N/A	N/A	CHR uses 2008 data from the US Census Bureau's County Business Patterns. Liquor stores are identified by their North American Industrial Classification System (NAICS) code, 445310. (For the 2010 Rankings, 2006 from the same source & classification code was used.)
<b>Additional Measure: Physical Environment</b>	% of workforce that drives alone to work	N/A	N/A	N/A	N/A	CHR uses 2005-09 5-year estimates from the US Census Bureau's American Community Survey.
<b>Former CHR Measure (2010)</b>	Income inequality: Gini coefficient of household income inequality	N/A	N/A	N/A	N/A	CHR estimates of income inequality for sparsely populated states were calculated by Mark L. Burkey, Assistant Professor of Economics at NC A&T State University, Greensboro, NC using data from 2000. 2005-2007 American Community Survey estimates of income inequality were used for the remaining states. (The Gini coefficient of income inequality represents the inequitable distribution of income in a community by household, and can range from 0 to 1. In the County Health Rankings, we multiplied the Gini coefficient by 100, so that the values can range between 0 and 100. A value of 100 indicates that all income in a county is concentrated in one household, while a coefficient of 0 indicates a completely equal distribution of income among households.)
<b>Former CHR Measure (2010)</b>	Hospice use: % of chronically ill Medicare patients who used hospice care in the last 6 months of life	N/A	N/A	N/A	N/A	CHR used 2001-2005 Medicare claims data from the Dartmouth Atlas of Health Care for this measure in 2010.

\*\* = Measures are comparable between CHR & HNC

**CHR Additional Measures** are not used in calculating the rankings; they are just provided on the website as supplemental data.

**Former CHR Measures** were part of the rankings calculations in 2010, but are no longer included in the rankings.

**CHR** = County Health Rankings (Other than former measures, all data above is from 2011 CHRankings)

**HNC** = Healthy North Carolina 2020

**AHR** = America's Health Rankings, 2011 Edition

**BRFSS** = Behavioral Risk Factor Surveillance System

**CDC** = Centers for Disease Control and Prevention

**SCHS** = (NC) State Center for Health Statistics

**EPA** = Environmental Protection Agency

**NCES** = National Center for Education Statistics

Crosswalk compiled by University of Wisconsin Population Health Institute for the North Carolina Division of Public Health