

# | 2023 | Leading Causes of Death Data Brief



## Key Findings from 2021 Mortality Data

*A note on the data in this report: The processing requirements for birth and death certificate records result in a delay in public availability of the data.*

- COVID-19 was the third leading cause of death in 2021 for the second year in a row, causing the deaths of 550 Guilford County residents. This was up from 346 in 2020.
- Cancer and heart disease, the two top leading causes of death, comprised about a third of all deaths in Guilford County in 2021. There was 14% increase in deaths for both cancer and heart disease from 2020 to 2021.
- Males had more deaths due to cancer, heart disease, unintentional injuries, chronic liver disease, Parkinson's Disease, suicide, and homicide. Females had more deaths due to stroke, dementia, and Alzheimer's Disease.
- African Americans had higher age-adjusted death rates than Whites for heart disease, cancers, stroke, diabetes, and homicide, while Whites had higher age-adjusted death rates due to chronic lower respiratory disease, chronic liver disease and cirrhosis, and unintentional injuries.
- Lung cancer continues to be the leading type of cancer death followed by breast, prostate, and colorectal cancers.
- From 2020 to 2021, there was a 24% increase in breast cancer deaths, a 30% increase in lung cancer deaths, and a 33% increase in prostate cancer deaths.

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## Selected Leading Causes of Death, All Residents, Guilford County, 2021

	Cause of Death	Deaths	Mortality Rate per 100,000
1	Cancer	1,015	187.1
2	Heart Disease	990	182.5
3	COVID-19	550	101.4
5	Unintentional Injuries/External Causes*	398	73.4
4	Dementia	271	50.0
6	Stroke	270	49.8
7	Alzheimer's Disease	254	46.8
9	Diabetes	196	36.1
8	Chronic Lower Respiratory Disease	192	35.4
10	Kidney Disease	121	22.3
13	Motor Vehicle Injuries	86	15.9
17	Liver Disease	81	14.9
11	Flu and Pneumonia	78	14.4
16	Septicemia	75	13.8
14	Homicide	73	13.5
18	Essential Hypertension	65	12.0
15	Suicide	58	10.7
12	Parkinson's Disease	57	10.5
19	Perinatal Conditions	28	5.2
20	Congenital Malformations	19	3.5
	Other Causes	920	NA
	Total 2021 Deaths from all Causes	5,797	1,068.7
	2021 Guilford County Population		542,410

\*Unintentional Injuries/External Causes include deaths primarily due to unintentional poisonings, falls, and other external causes of injury.

## Deaths from Cancer by Type, All Residents, Guilford County, 2021

Cancer Cause of Death	Deaths	Rate per 100,000
Lung Cancer	256	47.2
Colorectal Cancer	91	16.8
Breast Cancer	86	30.2
Pancreatic Cancer	75	13.8
Prostate Cancer	64	24.9
Liver Cancer	48	8.8
Cancer of the Kidney	33	6.1
Non-Hodgkin's Lymphoma	31	5.7
Leukemia	30	5.5
Ovarian Cancer	21	7.4
Bladder Cancer	21	3.9
Oral Cancer	21	3.9
Brain Cancer	19	3.5
Stomach Cancer	17	3.1
Skin Cancer	12	2.2
Cervical Cancer	8	2.8

Source: NC Mortality File, Center for Health Statistics; NCHS Bridged Population Estimates.

Note: Rates for Breast, Ovarian, Cervical and Prostate cancer are based on the population of females and males in Guilford County, respectively.

## Leading Causes of Death by Sex (Females/Males) Deaths and Mortality Rates per 100,000, Guilford County, 2021

Cause of Death	Females		Males	
	Number	Rate	Number	Rate
Cancer	488	171.4	527	204.5
Heart Disease	466	163.6	524	203.4
COVID-19	241	84.6	309	119.9
Unintentional Injuries/External Causes*	138	48.5	260	100.9
Dementia	189	66.4	82	31.8
Stroke	154	54.1	116	45.0
Alzheimer's Disease	186	65.3	68	26.4
Chronic Lower Respiratory Disease	106	37.2	95	36.9
Diabetes	92	32.3	104	40.4
Kidney Disease	58	20.4	67	26.0
Pneumonia and Flu	35	12.3	43	16.7
Liver Disease	29	10.2	52	20.2
Motor Vehicle Crash Deaths	62	21.8	62	24.1
Essential Hypertension	37	13.0	28	10.9
Homicide	13	4.6	60	23.3
Septicemia	42	14.7	34	13.2
Suicide	9	3.2	49	19.0
Parkinson's Disease	23	8.1	34	13.2
Perinatal Conditions	13	4.6	15	5.8
Congenital Malformations	7	2.5	12	4.7
HIV Disease	3	1.1	10	3.9
Other Causes of Death	417	---	438	---
<b>Total Deaths All Causes</b>	<b>2,808</b>	<b>986.1</b>	<b>2,989</b>	<b>1160.1</b>
<b>2021 Total Population by Sex**</b>	<b>284,759</b>		<b>257,651</b>	

Source: NC Mortality File, Center for Health Statistics.

Note: Use caution when interpreting rates based on small numbers, i.e., less than 10.

\*Unintentional Injuries/External Causes include deaths primarily due to unintentional poisonings, falls, and other external causes of injury.

\*\*Population estimates from 2021 American Community Survey, US Census Bureau.

## Selected Leading Causes of Death, by Race and Ethnicity Deaths and Mortality Rates per 100,000, Guilford County, 2021

Cause of Death	White		Black/African American		Asian		Hispanic	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Cancer	666	260.7	318	172.3	14	49.5	14	29.0
Heart Disease	656	256.8	308	166.9	11	38.9	10	20.7
COVID-19	333	130.3	183	99.1	15	53.0	15	31.1
Unintentional Injuries/External Causes*	260	101.8	111	60.1	8	28.3	15	31.1
Dementia	208	81.4	56	30.3	4	14.1	2	4.1
Stroke	174	68.1	80	43.3	11	38.9	5	10.4
Alzheimer's Disease	194	75.9	56	30.3	2	7.1	2	4.1
Chronic Lower Respiratory Disease	155	60.7	38	20.6	0	0.0	3	6.2
Diabetes	92	36.0	90	48.8	4	14.1	4	8.3
Kidney Disease	68	26.6	51	27.6	4	14.1	1	2.1
Pneumonia and Flu	60	23.5	14	7.6	3	10.6	1	2.1
Liver Disease	58	22.7	16	8.7	1	3.5	3	6.2
Essential Hypertension	43	16.8	20	10.8	0	0.0	2	4.1
Motor Vehicle Crash Deaths	41	16.0	36	19.5	2	7.1	7	14.5
Homicide	11	4.3	50	27.1	0	0.0	9	18.7
Septicemia	47	18.4	24	13.0	5	17.7	0	0.0
Suicide	37	14.5	15	8.1	1	3.5	4	8.3
Parkinson's Disease	50	19.6	5	2.7	1	3.5	1	2.1
Other Causes	604	---	291	---	23	---	27	---
<b>Total Deaths—All Causes</b>	<b>3,757</b>	<b>1470.6</b>	<b>1,762</b>	<b>954.6</b>	<b>109</b>	<b>385.4</b>	<b>125</b>	<b>259.1</b>
<b>2021 Population by Race and Ethnicity**</b>	<b>255,479</b>		<b>184,574</b>		<b>28,281</b>		<b>48,248</b>	

Source: NC State Center for Health Statistics.

\*Unintentional Injuries/External Causes includes deaths primarily due to unintentional poisonings, falls, and other external causes of injury.

Note: Rates are not adjusted for differences in age distributions among racial and ethnic groups.

\*\* Population estimates from 2020 Census, American Community Survey.

## Selected Leading Causes of Death, by Race

### 5-Year Age-Adjusted Mortality Rates per 100,000, Guilford County, 2017-2021

Cause of Death	White		Black/African American		Guilford County Overall	
	Deaths 2017-2021	Rate per 100,000	Deaths 2017-2021	Rate per 100,000	Deaths 2017-2021	Rate per 100,000
Diseases of Heart	2,970	135.7	1,285	166.7	4,362	141.1
Cerebrovascular Disease	882	40.1	400	54.9	1,335	43.7
Cancer	3,108	147.1	1,424	175.3	4,720	150.7
Colon, Rectum, and Anus	251	12.5	147	17.8	412	13.2
Pancreas	219	10.0	111	13.6	345	10.9
Trachea, Bronchus, and Lung	793	36.7	327	39.9	1,156	36.3
Breast	236	20.8	129	26.3	383	22.2
Prostate	154	17.0	98	38.2	262	21.1
Diabetes Mellitus	417	20.2	372	45.9	830	26.7
Pneumonia and Influenza	388	17.7	126	16.8	527	17.2
Chronic Lower Respiratory Diseases	770	34.9	196	25.3	988	31.4
Chronic Liver Disease and Cirrhosis	258	14.6	88	9.1	366	11.8
Nephritis, Nephrotic Syndrome, and Nephrosis	304	14.2	274	36.7	607	19.8
Unintentional Motor Vehicle Injuries	157	11.2	174	18.5	377	13.8
Unintentional Injuries and External Causes	1,043	67.5	338	38.8	1,454	52.3
Suicide	232	16.7	44	5.7	313	11.4
Homicide	41	3.2	237	23.9	310	11.8
Alzheimer's disease	955	41.8	251	43.0	1,233	41.1
COVID-19	527	24.2	294	37.6	896	29.2
All Causes	16,470	801.3	7,453	959.6	24,948	823.5

Source: NC State Center for Health Statistics, County Health Databook.

\*Unintentional Injuries/External Causes include deaths primarily due to unintentional poisonings, falls, and other external causes of injury.

**Note on Age-Adjustment:** When comparing mortality rates of age-related conditions—i.e., when the mortality risk increases with age, as with chronic diseases—across groups that have different age distributions, it can be misleading to use crude or unadjusted rates. In such situations, it is advisable to use age-adjusted rates that control for differences in age distribution. In Guilford County, Whites and African Americans have substantially different age distribution, with Whites having an older age distribution than African Americans.

## Detailed Causes of Death for Infants, Birth through Age One Guilford County, 2021

ICD-10 Codes	Cause of Death	Number of Deaths
I899	Noninfective disorder of lymphatic vessels and lymph nodes, unspecified	1
<b>Conditions Originating in the Perinatal Period</b>		
P000	Fetus and newborn affected by maternal hypertensive disorders	1
P011	Newborn (suspected to be) affected by premature rupture of membranes	1
P012	Newborn (suspected to be) affected by oligohydramnios	1
P027	Newborn (suspected to be) affected by chorioamnionitis	1
P051	Newborn small for gestational age	1
P072	Extreme immaturity of newborn	4
P073	Premature newborn	2
P209	Intrauterine hypoxia, unspecified	2
P220	Respiratory distress syndrome of newborn	2
P229	Respiratory distress of newborn, unspecified	1
P293	Persistent fetal circulation	1
P369	Bacterial sepsis of newborn, unspecified	3
P375	Neonatal candidiasis	1
P523	Unspecified intraventricular (nontraumatic) hemorrhage of fetus and newborn	1
P529	Intracranial (nontraumatic) hemorrhage of fetus and newborn	1
P614	Congenital anemia	1
P770	Necrotizing enterocolitis of fetus and newborn	2
P780	Perinatal intestinal perforation	1
P916	Hypoxic ischemic encephalopathy of newborn	1
<b>Congenital Malformations and Chromosomal Abnormalities</b>		
Q000	Anencephaly	1
Q249	Congenital malformation of heart, unspecified	1
Q790	Congenital diaphragmatic hernia	1
Q792	Exomphalos	1
Q913	Edwards syndrome	2
Q928	Trisomies and partial trisomies of autosomes	1
<b>Ill-defined and Unknown Cause of Mortality</b>		
R99	Ill-defined and unspecified causes of mortality	7
Y34	Unspecified event, undetermined intent	1
<b>Total Infant Deaths</b>		<b>44</b>

Source: NC Mortality File, NC State Center for Health Statistics.

## Leading Causes of Death, by Age Group Deaths and Rates per 100,000, Guilford County, 2021

Cause of Death	Ages 0-19		Ages 20-39		Ages 40-59		Ages 60-79		Ages 80 and Over	
	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
Cancer	0	0.0	18	12.5	142	105.2	546	530.3	308	1,675.1
Heart Disease	0	0.0	13	9.0	140	103.7	373	362.3	464	2,523.5
COVID-19	2	1.4	15	10.4	99	73.3	212	205.9	222	1,207.4
Unintentional Injuries/External Causes*	7	4.9	112	77.6	127	94.1	87	84.5	65	353.5
Dementia	0	0.0	0	0.0	0	0.0	52	50.5	219	1,191.1
Stroke	0	0.0	5	3.5	23	17.0	101	98.1	141	766.8
Alzheimer's Disease	0	0.0	0	0.0	0	0.0	49	47.6	205	1,114.9
Chronic Lower Respiratory Disease	0	0.0	1	0.7	11	8.1	111	107.8	178	968.1
Diabetes	0	0.0	5	3.5	45	33.3	95	92.3	51	277.4
Kidney Disease	0	0.0	4	2.8	13	9.6	58	56.3	50	271.9
Pneumonia and Flu	0	0.0	1	0.7	12	8.9	28	27.2	37	201.2
Liver Disease	0	0.0	5	3.5	36	26.7	37	35.9	3	16.3
Motor Vehicle Crash Deaths	4	2.8	37	25.6	24	17.8	19	18.5	2	10.9
Essential Hypertension	0	0.0	5	3.5	23	17.0	101	98.1	141	766.8
Homicide	13	9.2	42	29.1	13	9.6	5	4.9	0	0.0
Septicemia	0	0.0	1	0.7	13	9.6	39	37.9	23	125.1
Suicide	3	2.1	23	15.9	20	14.8	8	7.8	4	21.8
Parkinson's Disease	0	0.0	0	0.0	0	0.0	25	24.3	32	174.0
Perinatal Conditions	28	19.8	0	0.0	0	0.0	0	0.0	0	0.0
Congenital Malformations and Anomalies	9	6.3	5	3.5	2	1.5	0	0.0	0	0.0
Other Causes of Death	1	--	42	--	131	--	277	--	138	--
Total Deaths	67	47.3	334	231.5	874	647.3	2,223	2159.0	2,283	12,416.4
2021 Guilford County Population Estimate	141,768		144,269		135,022		102,964		18,387	

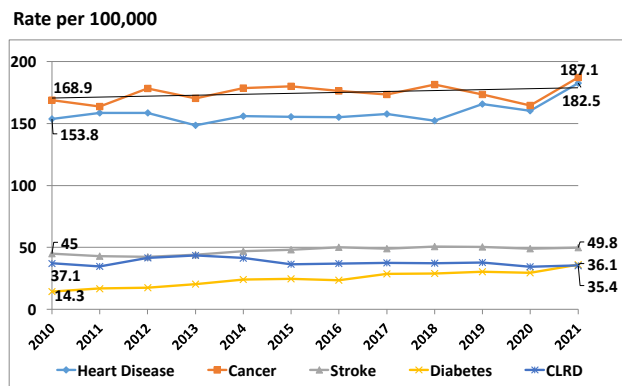
Source: NC Mortality File, Center for Health Statistics.

Note: Use caution when interpreting rates based on small numbers, i.e., less than 10.

\*Unintentional Injuries/External Causes include deaths primarily due to unintentional poisonings, falls, and other external causes of injury.

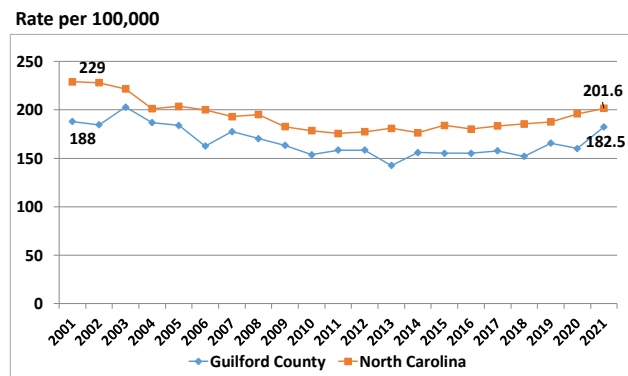
## Trends in Select Leading Causes of Death

### Trends in Chronic Disease Mortality Guilford County, 2010-2021



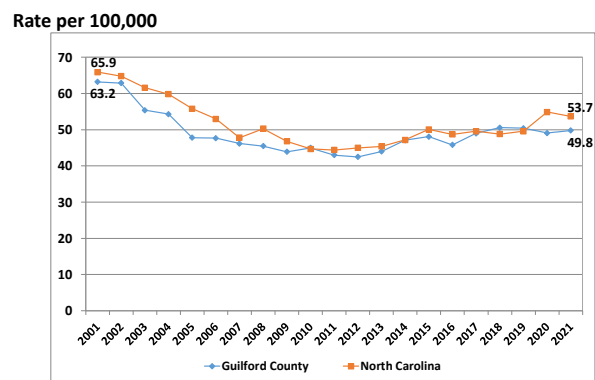
Notes: CLRD (Chronic Lower Respiratory Disease) is also known as Chronic Obstructive Pulmonary Disease (COPD). Rates not age-adjusted.  
Source: Data provided by the NC Center for Health Statistics.  
Chart prepared by the GCDHHS, Division of Public Health.

### Heart Disease Mortality Guilford County and NC, 2001-2021



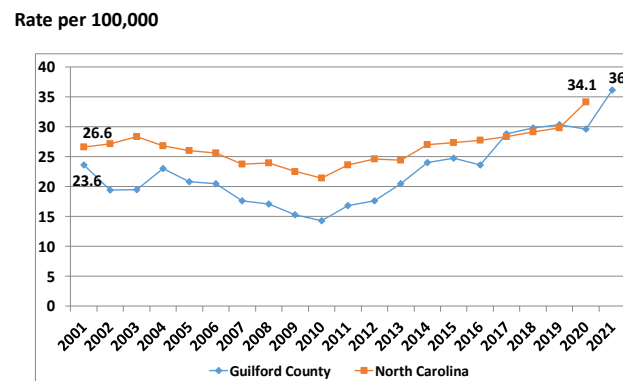
Note: Rates are not age-adjusted.  
Source: Data provided by the NC Center for Health Statistics.  
Chart prepared by the GCDHHS, Division of Public Health.

### Cerebrovascular Disease (Stroke) Mortality Guilford County and NC, 2001-2021



Note: Rates are not age-adjusted.  
Source: NC State Center for Health Statistics.  
Chart prepared by the GCDHHS, Division of Public Health.

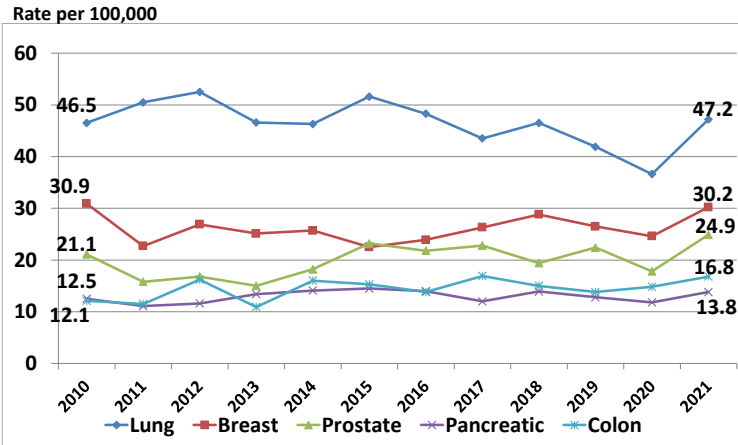
### Diabetes Mortality Guilford County and NC, 2001-2021



Note: Rates are not age-adjusted.  
Source: NC State Center for Health Statistics.  
Chart prepared by the GCDHHS, Division of Public Health.

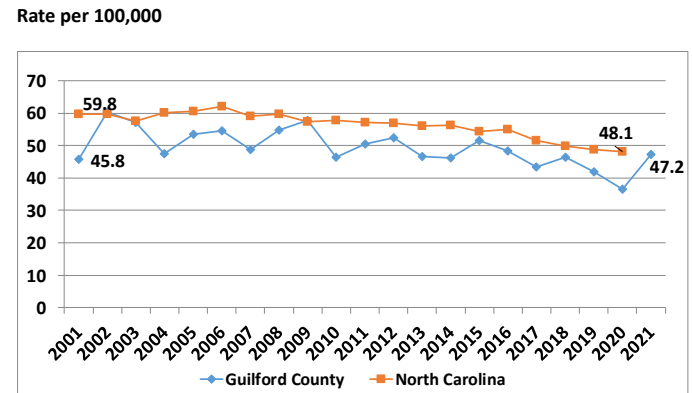


### Leading Causes of Death: Cancer Types Guilford County, 2010-2021



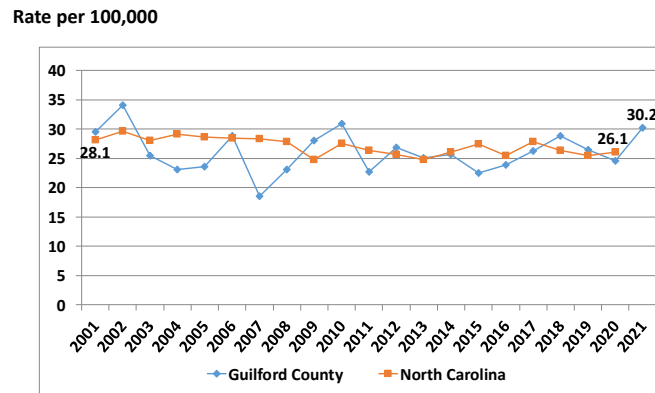
Note: Rates are not age-adjusted.  
Source: NC State Center for Health Statistics.  
Chart prepared by the GCDHHS, Division of Public Health.

### Lung Cancer Mortality Guilford County and NC, 2001-2021



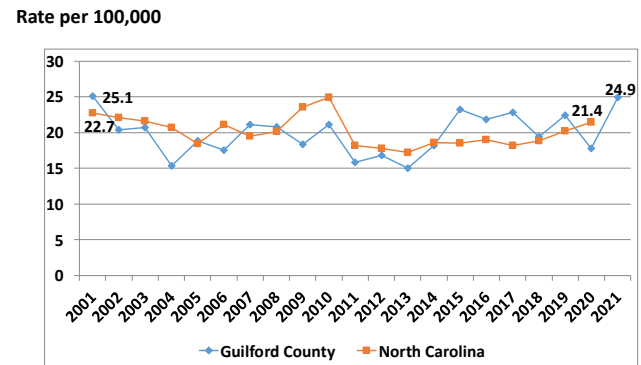
Note: Lung cancer includes cancers of the trachea, bronchus, and lungs. Rates are not age-adjusted. NC 2021 lung cancer mortality rates are not yet available.  
Source: NC State Center for Health Statistics.  
Chart prepared by the GCDHHS, Division of Public Health.

### Breast Cancer Mortality Guilford County and NC, 2001-2021



Note: Rates are not age-adjusted. NC 2021 breast cancer mortality rates are not yet available.  
Source: NC State Center for Health Statistics.  
Chart prepared by the GCDHHS, Division of Public Health.

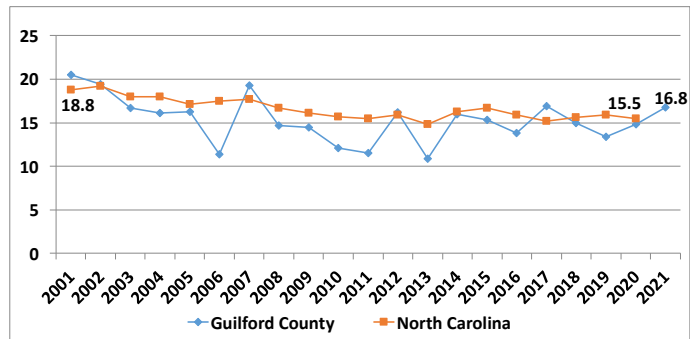
### Prostate Cancer Mortality Guilford County and NC, 2001-2021



Note: Rates are not age-adjusted. NC 2021 prostate cancer death rates are not yet available.  
Source: NC State Center for Health Statistics.  
Chart prepared by the GCDHHS, Division of Public Health.

## Colorectal Cancer Mortality Guilford County and NC, 2001-2021

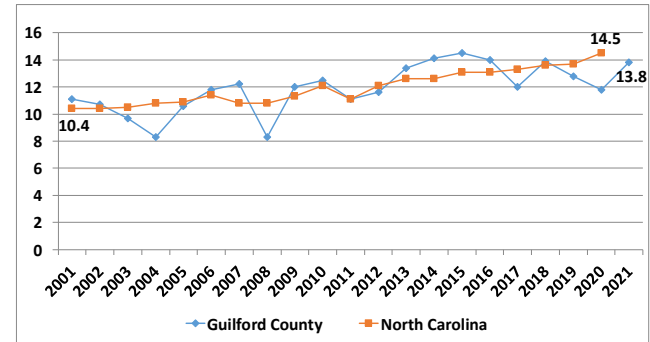
Rate per 100,000



Note: Rates are not age-adjusted. NC 2021 colorectal cancer death rates are not yet available.  
Source: NC State Center for Health Statistics.  
Chart prepared by the GCDHHS, Division of Public Health.

## Pancreatic Cancer Mortality Guilford County and NC, 2001-2021

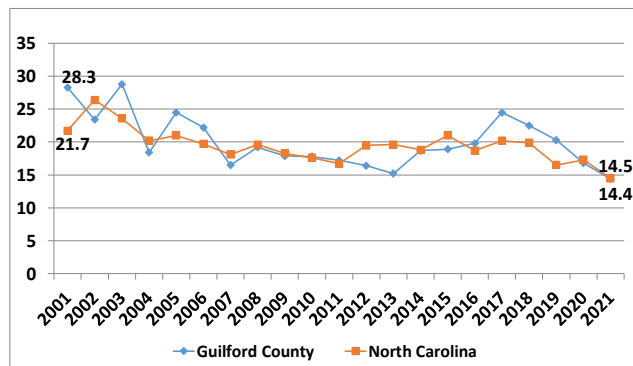
Rate per 100,000



Note: Rates are not age-adjusted. NC 2021 pancreatic cancer rates are not yet available.  
Source: NC State Center for Health Statistics.  
Chart prepared by the GCDHHS, Division of Public Health.

## Pneumonia and Influenza Mortality Guilford County and NC, 2001-2021

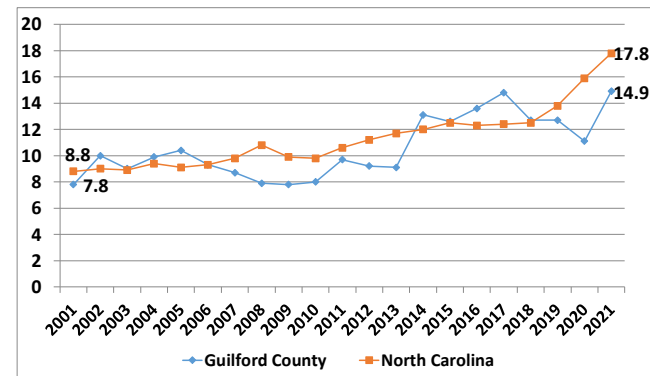
Rate per 100,000



Note: Rates are not age-adjusted.  
Source: Data provided by the NC Center for Health Statistics.  
Chart prepared by the GCDHHS, Division of Public Health.

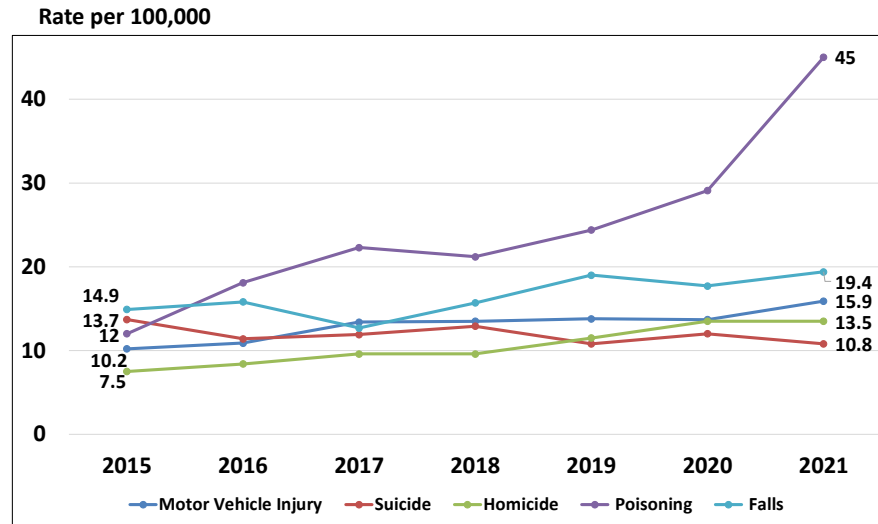
## Chronic Liver Disease and Cirrhosis Mortality Guilford County and NC, 2001-2021

Rate per 100,000



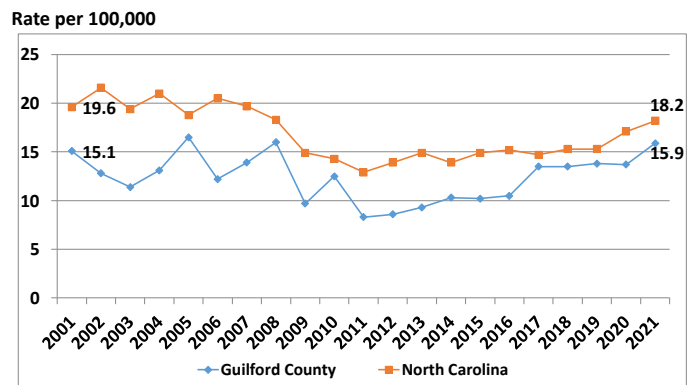
Note: Rates are not age-adjusted.  
Source: NC State Center for Health Statistics.  
Chart prepared by the GCDHHS, Division of Public Health.

## Trends in Injury Mortality Guilford County, 2015-2021



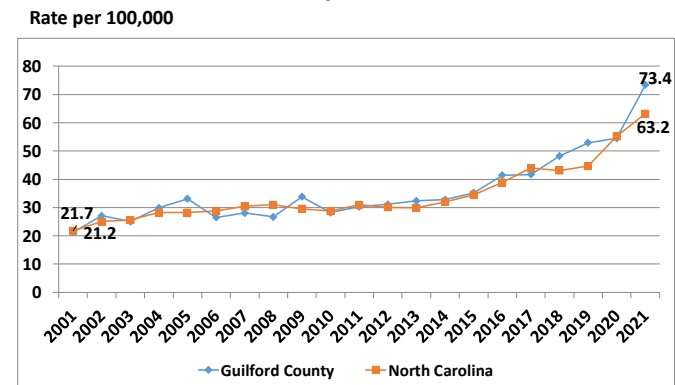
Notes: Rates not age-adjusted.  
Source: Data provided by the NC Center for Health Statistics.  
Chart prepared by the GCDHHS, Division of Public Health.

## Motor Vehicle Injury Mortality Guilford County and NC, 2001-2021



Note: Rates are not age-adjusted.  
Source: Data provided by the NC Center for Health Statistics.  
Chart prepared by the GCDHHS, Division of Public Health.

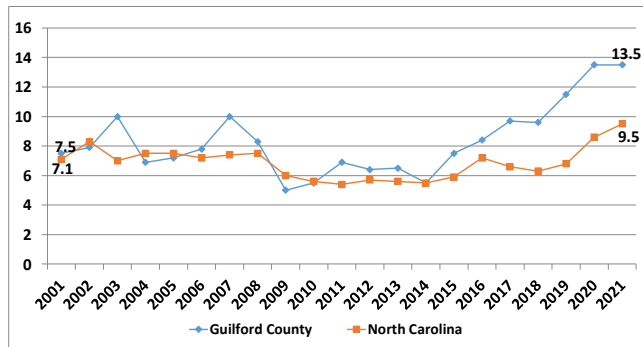
## Mortality Due to Unintentional Injuries and External Causes Guilford County and NC, 2001-2021



Note: Rates are not age-adjusted. Unintentional Injuries/External Causes includes deaths primarily due to unintentional poisonings, falls, and other external causes of injury.  
Source: Data provided by the NC Center for Health Statistics.  
Chart prepared by the GCDHHS, Division of Public Health.

## Homicide Mortality Guilford County and NC, 2001-2021

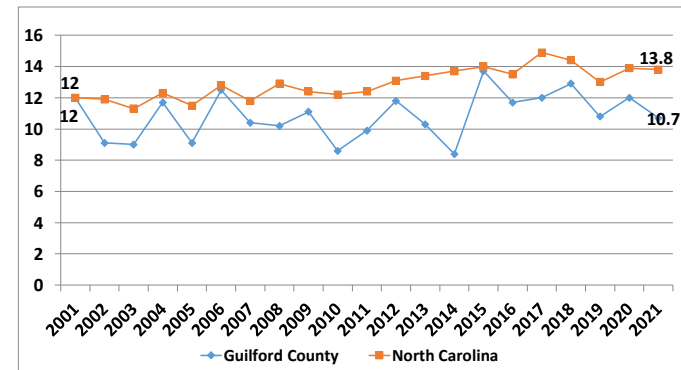
Rate per 100,000



Note: Rates are not age-adjusted.  
Source: Data provided by the NC Center for Health Statistics.  
Chart prepared by the GCDHHS, Division of Public Health.

## Suicide Mortality Guilford County and NC, 2001-2021

Rate per 100,000



Note: Rates are not age-adjusted.  
Source: Data provided by the NC Center for Health Statistics.  
Chart prepared by the GCDHHS, Division of Public Health.

This report was prepared by the Health Surveillance and Analysis Unit of the Division of Public Health:

Mark H. Smith, Ph.D., Epidemiologist  
Laura Mroska, MPH, MSW, Community Health Educator

For more information about Guilford County health statistics, visit:  
[www.guilfordcountync.gov/our-county/human-services/health-department/health-statistics](http://www.guilfordcountync.gov/our-county/human-services/health-department/health-statistics).