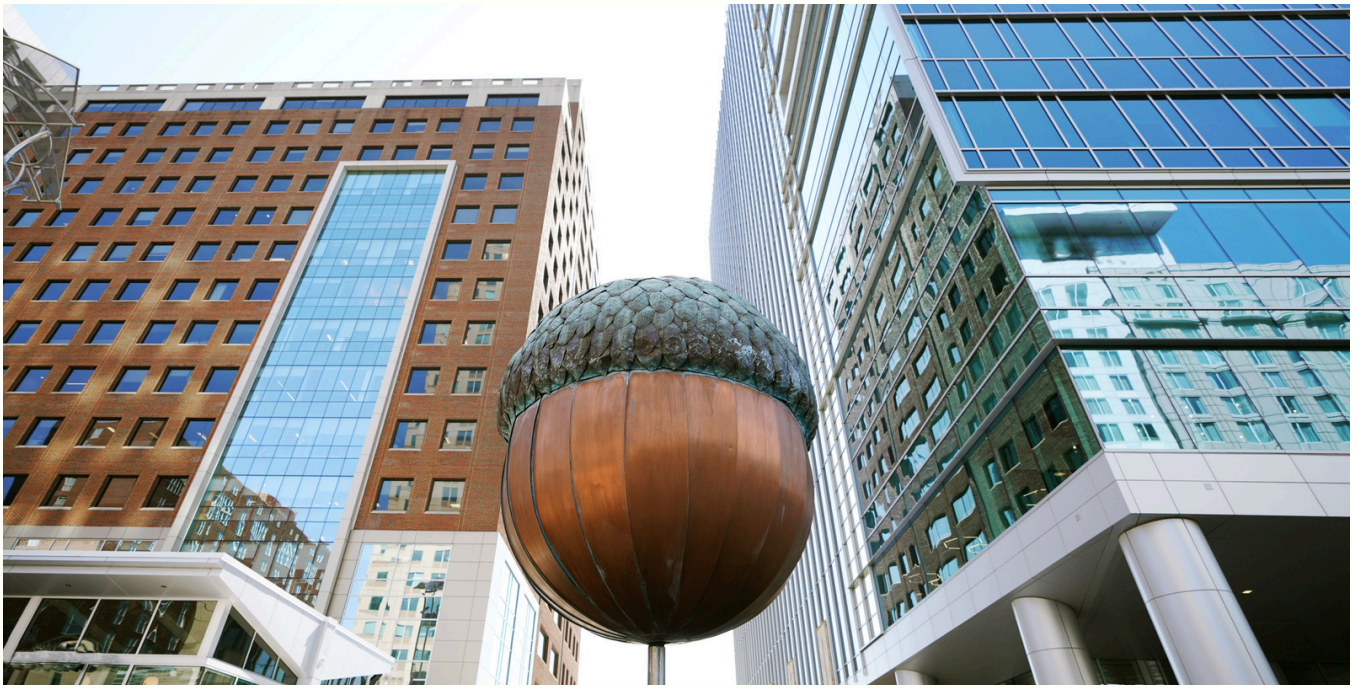
EPI INSIGHT: CONNECTING THE DOTS

Wake County Public Health (WCPH) Epidemiology (Epi) Program Newsletter



WELCOME TO EPI INSIGHT!

Dear Epi Enthusiasts,

A new year offers an opportunity to pause, take stock, and look ahead. As public health priorities continue to shift, our work remains grounded in data, collaboration, and shared responsibility.

In this edition of Epi Insight: Connecting the Dots, we share updates and snapshots that highlight where we are now and how our collective efforts continue to support informed action.

Thank you for your continued partnership as we move into the year ahead.

Epi Program Members:

- Morgan Poole, Epi Program Manager: Leading our team with a focus on COVID-19 Surveillance and Guidance, Wastewater Surveillance, Mpox Surveillance, and Heat-Related Illness Surveillance.
- Katie LaWall, Senior Epidemiologist: Specializing in Injuries (including overdoses), Sexually Transmitted Diseases (STDs), ArcGIS/mapping, and Communicable Diseases.
- Akanksha Acharya, Senior Epidemiologist: Bringing expertise in Respiratory Virus Surveillance, Communicable Diseases, Chronic Diseases, and Mental Health.
- Marlene Kurt, Epidemiology Specialist: Diving deep and bringing knowledge and expertise in Wastewater Surveillance, COVID-19 Data and Research, Maternal and Child Health Data, ArcGIS/mapping, and often serving as our Community Health Worker Liaison.

All members supporting outbreak response at the local public health level.

IN THIS ISSUE

EPI WORD OF THE DAY

by Akanksha Acharya, Senior Epidemiologist

Welcome to the “Epi Word of the Day,” where we share key epidemiological terms to deepen your knowledge and enhance your work in public health. The epi word for this edition is…

MISINFORMATION

Misinformation is false, inaccurate, or misleading information presented as fact based on the best knowledge available at the time. In public health, misinformation can misrepresent causes of disease, promote ineffective treatments, or undermine trust in science and health systems (Office of the Surgeon General).

Why It Matters

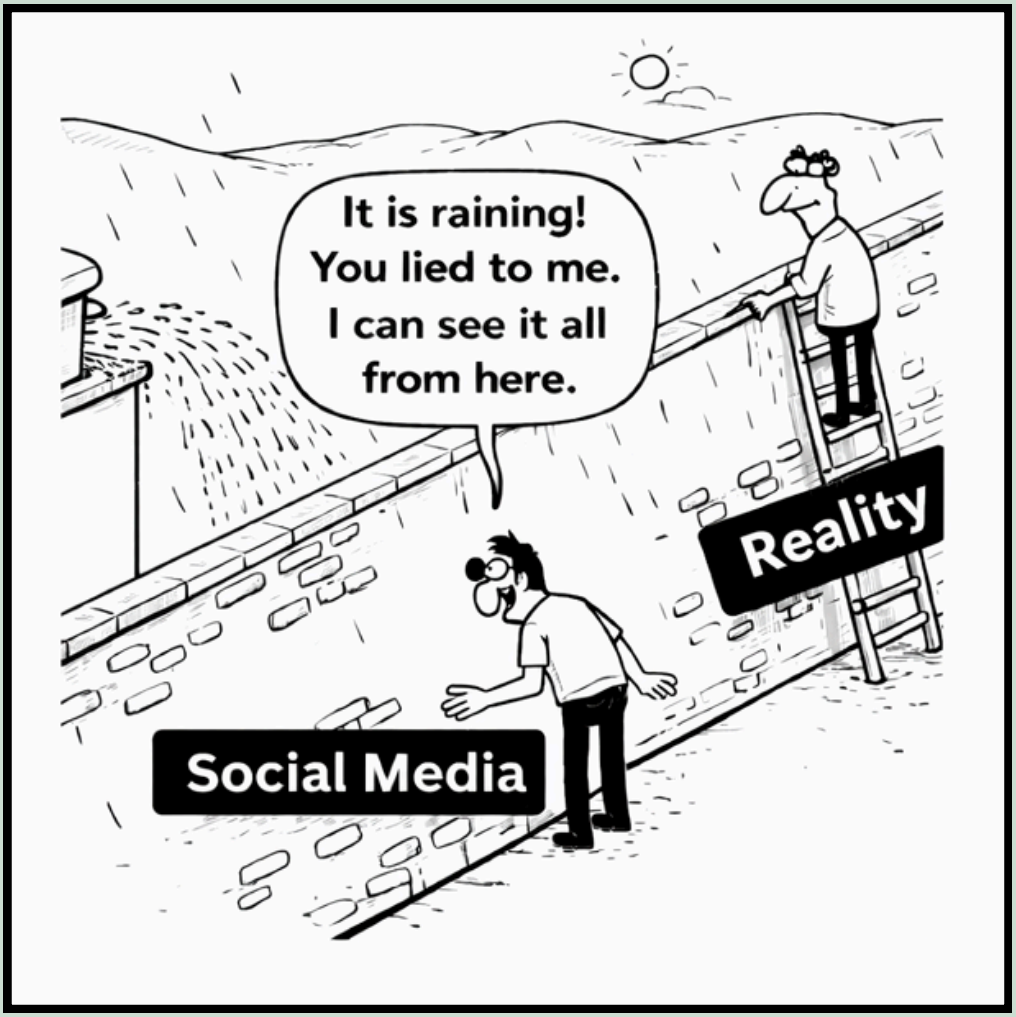
Misinformation can lead people to make unsafe decisions, delay seeking care, try unproven remedies, or distrust public-health guidance. It spreads quickly through digital platforms like social media and can weaken community response, prevention efforts, and confidence in reliable sources.

How You Can Help

- Pause before sharing health information: consider whether the source is credible and evidence based.
- Ask questions: “Who made this claim? Is there supporting evidence? Do trusted experts agree?”
- Engage respectfully: if you see misinformation, offer correct information with empathy, not judgment.
- Share accurate, trusted resources to help strengthen reliable health information in your networks.

In short, misinformation may appear harmless, but it can distort understanding, influence harmful decisions, and ultimately weaken protection against preventable diseases. Staying thoughtful about what we read, share, and trust helps protect not only ourselves but our whole community.

EPI HUMOR CORNER



EPI SNAPSHOT

by Katherine LaWall, Senior Epidemiologist

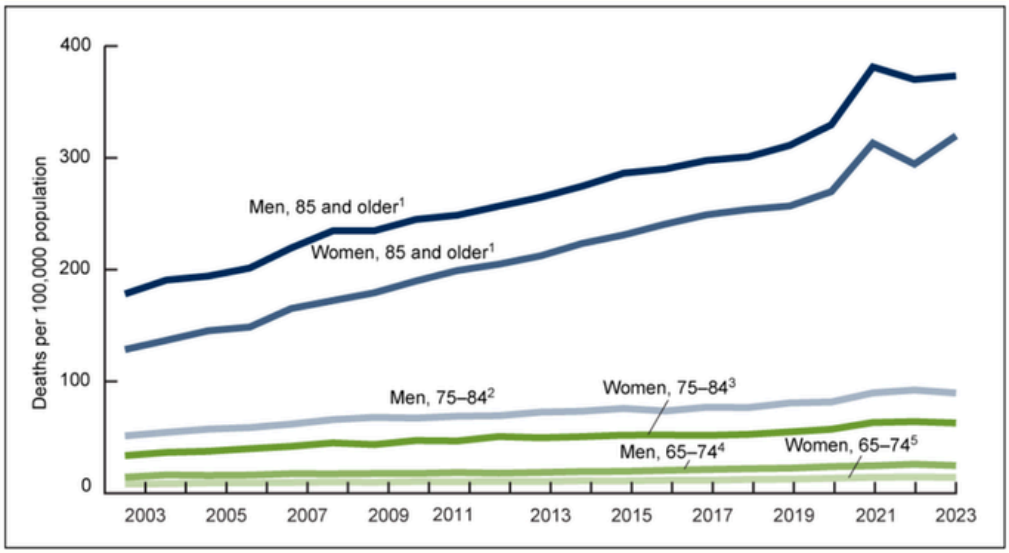
Epidemiology Snapshot: Unintentional Falls as a Leading Cause of Injuries

Welcome to our latest Epidemiology Snapshot, where we provide a concise overview of recent and current disease and illness trends in Wake County. In this edition, we focus on unintentional falls, highlighting background and trends from recent years, and what individuals can do to prevent unintentional falls.

National Background and Trends

Nationally, unintentional fall deaths among adults aged 65 years and older have increased in recent years. Based on CDC mortality data from 2023, men experience higher rates of fall-related deaths than women, and adults aged 85 years and older are the most vulnerable compared with those aged 65-74 and 75-84 years. Overall, the likelihood of death due to an unintentional fall increases with age.

FIGURE 1: RATE OF UNINTENTIONAL FALL DEATHS FOR ADULTS AGE 65 AND OLDER, BY YEAR, SEX, AND AGE GROUP, UNITED STATES, 2003 - 2023



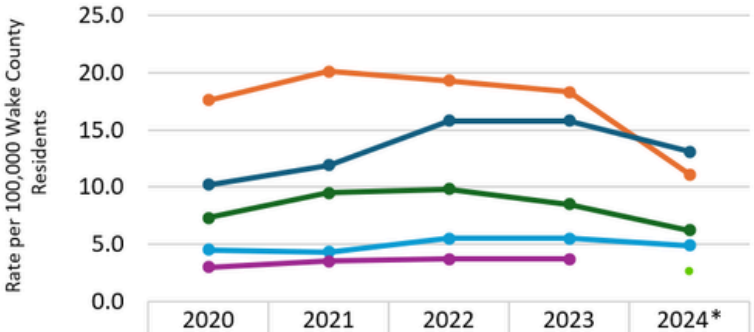
SOURCE: HTTPS://WWW.CDC.GOV/NCHS/PRODUCTS/DATABRIEFS/DB532.HTM

In 2023, the rate of unintentional fall deaths among adults aged 65 years and older in the United States was 69.9 deaths per 100,000 population. During the same time period, Wake County experienced a substantially higher rate for this population, at 93.1 deaths per 100,000 population.

Local Background and Trends

Between 2020 and 2024, unintentional falls consistently accounted for the highest number of injury-related emergency department visits and injury hospitalizations in Wake County. In 2024, unintentional motor vehicle traffic injuries ranked a distant second for both outcomes. Among the top five causes of injury-related death in Wake County in 2024, unintentional falls accounted for 34% of deaths. Although deaths declined across all five leading causes of injury-related mortality in 2024, unintentional falls remained the county's leading cause of injury death, as illustrated in Figure 2.

Figure 2: Death Rates, Top Five Causes of Injury Death, Wake County, 2020 - 2024*



	2020	2021	2022	2023	2024*
Poisoning - Unintentional	17.6	20.1	19.3	18.3	11.1
Falls - Unintentional	10.2	11.9	15.8	15.8	13.1
MVT - Unintentional	7.3	9.5	9.8	8.5	6.2
Firearm - Self-Inflicted	4.5	4.3	5.5	5.5	4.9
Firearm - Assault	3.0	3.5	3.7	3.7	-
Suffocation - Self-Inflicted	-	-	-	-	3.0

***2024 DATA PROVISIONAL AS OF 08/01/2025.**

SOURCE: NORTH CAROLINA STATE CENTER FOR HEALTH STATISTICS, VITAL STATISTICS DEATH CERTIFICATE DATA, 2020-2024*; US CENSUS NON-BRIDGED SINGLE RACE POPULATION ESTIMATES 2020-2024; PROVIDED BY NCDHHS DPH INJURY AND VIOLENCE PREVENTION BRANCH. BLANK CELLS: CAUSE OF INJURY DEATH WAS NOT IN THE TOP FIVE CAUSES OF INJURY DEATH FOR THAT YEAR.

Building on the established burden of unintentional falls in Wake County, Table 1 highlights demographic patterns in fall-related hospitalizations and emergency department (ED) visits from 2019 to 2023. During this period, females, non-Hispanic White residents, individuals classified as non-Hispanic “Other” race, and adults aged 85 years and older experienced the highest rates of fall-related hospitalizations and ED visits. In this table, numbers and rates are suppressed for counts between 1 and 4 (**) and rates are not calculated for populations categorized as Unknown (*).

TABLE 1: UNINTENTIONAL FALL INJURY HOSPITALIZATIONS AND EMERGENCY DEPARTMENT (ED) VISITS, WAKE COUNTY, 2019-2023

Demographic	Hospitalizations		ED Visits	
	Number	Rate	Number	Rate
Gender				
Female	6,379	216.9	37,865	1,287.7
Male	3,992	141.8	24,172	858.6
Unknown	0	0	29	*
Race				
White (NH)	8,221	245.5	42,238	1,261.2
Black (NH)	1,185	105.1	12,807	1,135.5
AI/AN (NH)	11	68.1	96	594.4
Hispanic	436	67.4	2,230	345.0
Asian (NH)	215	44.4	1,018	210.5
Other (NH)	168	126.9	2,688	2,030.5
Unknown	135	*	989	*
Age				
0-14	295	26.9	5,752	523.6
15-24	159	21.2	2,741	365.9
25-34	245	29.1	3,177	377.0
35-44	361	41.7	3,314	383.1
45-54	462	57.1	4,522	558.8
55-64	1,044	156.6	7,069	1,060.1
65-84	4,779	729.5	23,429	3,576.3
85+	3,026	4,378.4	11,988	17,345.8
Unknown	0	0	74	*
Total	**10,371**	**177.4**	**62,066**	**1,078.4**

NOTE: MULTIPLE INJURIES CAN BE IDENTIFIED FOR THE SAME INDIVIDUAL IN THE HOSPITALIZATION AND ED VISIT DATA, THEREFORE INJURY CATEGORIES ARE NOT MUTUALLY EXCLUSIVE AND DO NOT SUM TO THE TOTAL NUMBER OF INJURIES. ANALYSIS BY: NCDPH, INJURY EPIDEMIOLOGY, SURVEILLANCE & INFORMATICS UNIT; 08/01/2025.

Table 2 summarizes unintentional fall deaths in Wake County from 2020 to 2024, during which 790 deaths were recorded. Adults aged 65 years and older accounted for the majority of these deaths and experienced a rate of 93.1 deaths per 100,000 population. By race and ethnicity, non-Hispanic White residents had the highest fall-related death rate, and females experienced a slightly higher rate than males. Counts, percentages, and rates are suppressed in Table 2 for values between 1 and 4 (**).

TABLE 2. UNINTENTIONAL FALL DEATHS, WAKE COUNTY, 2020-2024*

	Number	Percent	Rate per 100,000
Sex			
Female	414	52.4	13.8
Male	376	47.6	13.0
Race/Ethnicity			
White (NH)	674	85.3	19.9
Black (NH)	61	7.7	5.3
American Indian (AI)/Alaska Native (AN) (NH)	0	0.0	0.0
Asian (NH)	24	3.0	4.5
Hispanic	28	3.5	4.1
Other (NH)/Unknown	**	**	**
Age Group			
0-14	**	**	**
15-24	**	**	**
25-34	**	**	**
35-44	17	2.2	1.9
45-54	12	1.5	1.5
55-64	47	6.0	6.9
65+	707	89.5	93.1
Total	**790**	**100.0**	**13.4**

***2024 DATA ARE PROVISIONAL; DATA AS OF 08/01/2025. SOURCE: NORTH CAROLINA STATE CENTER FOR HEALTH STATISTICS, VITAL STATISTICS DEATH CERTIFICATE DATA, 2020-2024*; US CENSUS NON-BRIDGED SINGLE RACE POPULATION ESTIMATES 2020-2024*. NOTE: US CENSUS NON-BRIDGED SINGLE RACE POPULATION CATEGORIES DO NOT DIRECTLY ALIGN WITH DEATH CERTIFICATE DATA RACE CATEGORIES (POPULATION ESTIMATES EXCLUDE 1.8% MULTI-RACE RESIDENTS).**
ANALYSIS BY: NCDPH, INJURY AND VIOLENCE PREVENTION BRANCH EPIDEMIOLOGY, SURVEILLANCE, AND INFORMATICS UNIT.

Factors That Can Contribute to Unintentional Falls

According to the National Institute on Aging, several factors can increase the risk of unintentional falls, particularly among older adults. These include age-related changes in vision, hearing, reflexes, muscle strength, balance, and blood pressure, as well as chronic medical conditions such as diabetes, heart disease, cognitive impairment, and certain types of dementia.

Medications that cause side effects like dizziness or confusion, especially when multiple medications are used concurrently- can further elevate fall risk. Additionally, foot pain, unsafe or inappropriate footwear, rushed movements (such as urgently needing to use the bathroom), and environmental hazards in the home or community can all contribute to unintentional falls.

What Individuals Can Do (To Prevent Falls):

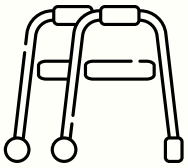
Falls are a growing public health concern as the country's population sees record numbers of people turn 65 — now and in the future. Individuals and caregivers can reduce fall risk by taking the following steps:

- Make the home safer: Install secure handrails and grab bars, improve lighting, remove clutter and throw rugs, secure carpets, keep cords out of walkways, and use non-slip mats in bathrooms. Keep frequently used items within easy reach, clean spills promptly, and ensure outdoor steps and walkways are even, well-lit, and free of debris.

- Build strength and balance: Regular physical activity, especially balance and strength exercises such as walking, stair climbing, yoga, Pilates, or tai chi, can improve stability and reduce fall risk.

- Maintain vision and hearing: Have eyes and ears checked regularly and use corrective lenses or hearing aids as recommended.

- Practice healthy habits: Get enough sleep and limit alcohol consumption.



- Use assistive devices when needed: Canes, walkers, or other supports can help prevent falls when balance feels unsteady; use hands-free bags to keep arms available for support.

- Wear safe footwear: Choose supportive, non-slip shoes and limit outdoor activity during poor weather conditions.

- Talk to your doctor: Report any falls since your last visit, as they may indicate medical or medication-related issues and help guide fall-prevention strategies.

Spotlight on Quality: People, Process, and Progress

by Morgan Poole, Epidemiology Program Manager and Marlene Kurt, Epidemiology Specialist

What is Quality Improvement (QI) in Public Health?

Quality Improvement (QI) in public health uses data, teamwork, and practical tools to make our work more effective, efficient, and responsive. QI helps us examine how we do our work, identify opportunities for improvement, and test small changes that lead to better outcomes for staff and the community we serve.

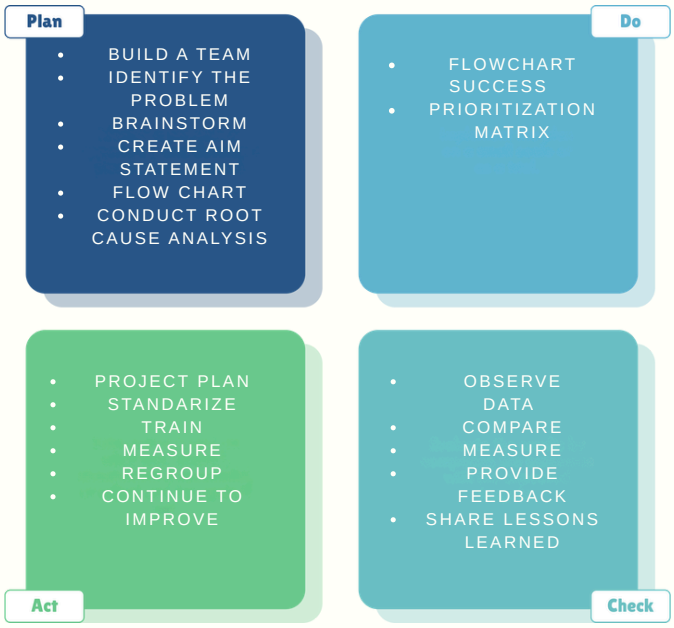
People: Building a Culture of Quality

At Wake County Public Health, QI is not a one-time project, it's a shared mindset. Staff like Dana Webb-Randall (Compliance and Administrative Program Manager), Pendora Lundy (Quality Improvement Manager), Natasha Bowen (Accreditation and Quality Assurance Consultant), Tammy Bonas (Quality Management Supervisor), Tamma Hill (Quality Assurance Consultant), and Jenelle Mayer (Surveillance and Compliance Health Director) play a key role in creating and supporting a culture where continuous improvement is encouraged and integrated into daily work. From guiding teams through QI tools to supporting small tests of change, this work helps ensure quality remains part of how we operate, not an added task.

Process: How We Improve Our Work

Quality Improvement focuses on understanding our processes. This includes what's working well and where there are opportunities to reduce barriers, streamline steps, or improve consistency. By mapping workflows, using data to guide decisions, and engaging staff closest to the work, QI allows teams to make informed changes that are both realistic and meaningful.

QI Tools in Practice: PLAN-DO-CHECK-ACT



Quality Improvement (QI) tools are practical methods that help teams identify challenges, test changes, and improve how work gets done using data and structured problem-solving. One commonly used QI tool is the Plan–Do–Check–Act (PDCA) cycle, which provides a structured approach to testing and refining improvements over time.

In 2025, the Epidemiology Program partnered with WCPH's Tobacco Prevention and Control (TP&C) Program on a quality improvement project focused on improving local data support and resources for program planning and reporting. This effort aimed to better align epidemiological data with the practical needs of the TP&C staff.

The project shifted collaboration from an informal, once-a-year interaction during report development to a more intentional and structured process. While the format and frequency of meetings may evolve, the work established clearer communication pathways, shared expectations, and practical tools. This included developing a shared data tool and identifying additional data sources and partnerships to better support TP&C planning and reporting needs.

Quality Improvement provides a structured way to pause, reflect, and improve how we work together. We invite you to share examples of people, process, or progress from your organization and how QI is being used to support improvement. Send submissions to wakeepidemiology@wake.gov

EPI ALERTS AND NOTIFICATIONS

NCDHHS Shares Provider Guidance, Updates as Measles Cases Rise
Tuesday, February 17, 2026
PRESS RELEASE — The North Carolina Department of Health and Human Services today announced 22 measles cases in North Carolina since late December 2025. As cases continue to rise across the state, NCDHHS urges vaccination for everyone ages one year and older and recommends health care providers consider early vaccination for infants living in or routinely visiting certain areas in North Carolina.

Measles Cases Continue to Increase, NCDHHS Shares New Outreach Tools and Materials
Wednesday, February 04, 2026
PRESS RELEASE — The North Carolina Department of Health and Human Services is sharing resources and urging vaccination as measles cases increase across the state. The latest update to the Measles Cases and Outbreaks Dashboard shows 15 cases in North Carolina since late December 2025, with the first hospitalized case announced last week. As cases persist, NCDHHS is launching new outreach tools to share measles information.

Additional Measles Cases in North Carolina, NCDHHS Shares New Measles Dashboard
Thursday, January 15, 2026
PRESS RELEASE — The North Carolina Department of Health and Human Services today announced two additional cases of measles in unvaccinated siblings in Buncombe County. This brings the total number of North Carolina measles cases to seven since late December. Both cases are connected to the ongoing measles outbreak in Spartanburg County, South Carolina. To protect the family's privacy, no additional information about these cases will be released. On Tuesday, South Carolina health officials announced 124 new measles cases, bringing the total number related to their outbreak to 434.

Additional Measles Case in North Carolina, NCDHHS Urges Vaccination
Friday, January 09, 2026
PRESS RELEASE — The North Carolina Department of Health and Human Services today announced a new case of measles in Rutherford County. This brings the total number of North Carolina measles cases to five since late December. All individuals who may have been exposed have been notified. To protect the individual's privacy, no additional information about the case will be released.

The CDC issued the following HAN notifications to inform the public of a public health incident of importance.

Health Alert Network (HAN) No. 525 - First Reported Outbreak Caused by Marburg Virus in Ethiopia.
Issued on 12/03/2025.

Health Alert Network (HAN) No. 524 - Ebola Outbreak in the Democratic Republic of the Congo.
Issued on 09/18/2025.

For more details and information on the CDC Health Alert Network and these alerts, please visit:
https://www.cdc.gov/han/php/about/?CDC_AAref_Val=https://www.cdc.gov/han/index.html

RECENT PUBLICATIONS

FROM THE WAKE COUNTY EPIDEMIOLOGY PROGRAM

- 2025 Communicable Disease Report
- 2025 Mental Health Issue Brief: Youth Mental Health
- Public Health Issue Brief: Emerging Nicotine Products and Youth Exposure in Wake County, NC
- 2025 Injury Report
- For all other reports and briefs, please visit wake.gov/epidemiology

RESOURCES

FOR MORE INFORMATION AND GUIDANCE, VISIT THE FOLLOWING LINKS:

HTTPS://WWW.HHS.GOV/SURGEONGENERAL/REPORTS-AND-PUBLICATIONS/HEALTH-MISINFORMATION/INDEX.HTML
HTTPS://WWW.CDC.GOV/NCHS/PRODUCTS/DATABRIEFS/DB532.HTM
HTTPS://WWW.NIA.NIH.GOV/HEALTH/FALLS-AND-FALLS-PREVENTION/FALLS-AND-FRACTURES-OLDER-ADULTS-CAUSES-AND-PREVENTION
HTTPS://WWW.NCDHHS.GOV/PRESS-RELEASES?FIELD_AGENCY_DEPARTMENT_TARGET_ID=2153&FIELD_PRESS_RELEASE_TERMS_TARGET_ID=ALL
HTTPS://WWW.CDC.GOV/HAN/PHP/ABOUT/INDEX.HTML

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VISIT OUR WEBPAGE AND SUBSCRIBE AT: WAKE.GOV/EPIDEMIOLOGY

DATA REQUEST FORM: SUBMIT A REQUEST FOR DATA FROM OUR EPIDEMIOLOGY PROGRAM

WAKE COUNTY EPIDEMIOLOGY PROGRAM PHONE NUMBER: 919-250-1252

FOR NON-DATA RELATED INFORMATION, EMAIL WAKEEPIDEMIOLOGY@WAKE.GOV