

IREDELL COUNTY NEWS RELEASE

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Thyroid Cancer in Iredell County

On June 20, 2018, the Iredell County Health Department released a statement reporting a higher rate of thyroid cancer diagnoses in the 28115 and 28117 zip codes. As a follow-up to this, the North Carolina Central Cancer Registry (NCCCR) provided data to the Iredell County Health Department confirming a higher rate of thyroid cancer diagnoses in the southwestern and southeastern part of the county compared to the overall state rate during the 2005-2016 time period. This updated information should clarify where and when rates in Iredell County began to increase faster than the State rate.

Since the June press release, local elected officials from Mooresville, Iredell County, and our State Senator and Representatives have met with Ms. Susan Wind, a local resident who has worked to bring attention to thyroid cancer in Iredell County, NC Department of Health and Human Services (DHHS), the Department of Environmental Quality (DEQ) and others to review this matter, determine a course of action and monitor the resources of local and state agencies in addressing this important concern.

We know many people in the community are concerned about the higher rates of thyroid cancer diagnoses in southern Iredell County, and we share those same concerns. Iredell County Government, Iredell County Health Department, the Town of Mooresville, and our State Senator and Representatives are advocating for DHHS and DEQ to identify and address any potential threats to the health of our community. Additionally, DHHS has committed to communicating with and providing state data to assist Duke University researchers hired by Ms. Wind as a result of her investigation and fundraising efforts. The Duke University research team continues to collect and analyze information to assist in its research. Additionally, our elected state and local officials have initiated a collaboration with UNC Healthcare – Lineberger Cancer Center for further assessment and advice on this matter.

The National Cancer Institute defines thyroid cancer as a disease in which cancer cells form in tissue of the thyroid gland. The thyroid is a gland at the base of the throat near the windpipe. The normal thyroid gland can be felt under the skin in many patients, and its size depends on age. Thyroid cancer rates have been increasing in North Carolina, nationally and worldwide over the past few decades. The American Cancer Society estimates 53,990 thyroid cancer cases will be diagnosed in the United States in 2018, making it the 12th most common cancer in the US. Although the reasons for this are not fully understood, one possibility is that the increased use of ultrasound and CT scans are leading to detection of small cancers that might not have been found in the past and might never have caused symptoms if undetected. In Iredell County, the

number of thyroid cancer cases increased from 21 (1995-1999) to 181 (2012-2016). DHHS has informed us that preliminary data for 2017 should be available from the NCCCR in early 2019.

Having a higher than expected rate of thyroid cancer doesn't necessarily mean that people living in the community now are at a higher risk of developing cancer. This also doesn't mean that there will be a common cause identified, such as something in the environment. Higher rates can also be due to changes in the population, increased testing, or other factors. However, we understand exposure to environmental contaminants is a major concern for our citizens, and we are advocating for DHHS, DEQ, and third parties to investigate that possibility.

Ionizing radiation is the only exposure definitively linked to thyroid cancer today. This results in nuclear plants and other sources of radiation nationwide being regularly tested for radiation. No evidence of increased exposure to radiation has been identified through routine monitoring by federal, state, independent parties and Duke Energy of the area around the McGuire Nuclear Site during the past 40 years.

Currently no chemicals have been clearly linked to thyroid cancer, however, EPA, DEQ and DHHS are reviewing the most current scientific literature to try to identify chemicals that researchers are studying for possible associations with thyroid cancer in humans. DEQ will compare this list of chemicals against available monitoring data from public water supplies, data received from industrial facilities permitted by the state and federal authorities and other potential sources to determine if these chemicals may have been released to the local environment and warrant further study. To date, DEQ staff has begun compiling data from programs that regulate wastewater, groundwater, public water supplies, air emissions and waste management to identify types and locations of industrial facilities associated with these and other chemicals. At this time, there is no indication of a specific environmental cause linked to the increased rates of thyroid cancer diagnoses in Iredell County or other areas of North Carolina.

Finally, DHHS is analyzing more federal, state and local data to learn more about this issue. This involves analyzing Central Cancer Registry data to learn more about which specific groups in the population are developing thyroid cancer in Iredell County and how it compares to other geographical areas. Additionally, work is underway to further assess chemicals that occur naturally in this area's geology in order to have a more complete picture of the sources of various chemicals in our environment.

Understanding the causes of cancer in a community is challenging. While we would like to have a quick answer, it's important to know these investigations can take months or years and most often do not clearly identify an underlying environmental cause. However, these investigations are important and frequently can help identify environmental hazards that may need to be addressed.

The Iredell County Health Department is making the following recommendations to the community:

- The United States Preventive Services Task Force and the American Cancer Society do not recommend thyroid cancer screening for people who do not have any signs and symptoms.

- **You should see your doctor if you experience signs and symptoms of thyroid cancer including a lump or swelling in the neck, trouble breathing or swallowing, pain when swallowing, hoarseness or other voice changes that do not go away, and a constant cough that is not due to a cold.**
- **It is a standard recommendation that all private well water owners routinely test their water according to DHHS recommendations in order to protect themselves and their families against any adverse health effects.** <https://epi.publichealth.nc.gov/oe/wellwater/whentotest.html>.
- The NC Department of Environmental Quality (DEQ) is responsible for making sure the public water supply within North Carolina is safe. However, DEQ does not monitor or treat private well drinking water. DEQ's Public Water Supply Program has for decades regulated municipal and public schools' water systems and community drinking wells, requiring a wide range of testing based on federal standards.
- One way to lower your risk of thyroid cancer is to avoid unnecessary exposure to radiation, including radiation from medical imaging procedures that involve the head and neck area. DHHS does not have enough information to recommend any other specific actions to lower your risk of thyroid cancer if you live in Iredell County.
- The Iredell County Health Department will distribute information regarding the increased rates of thyroid cancer to medical providers within the community.

The Iredell County Health Department's mission is to promote and protect personal, community, and environmental health. The health and safety of Iredell County residents is the top priority. DHHS and DEQ will continue to provide educational information to Iredell County Health Department staff to ensure our citizens have the information they need to fully understand environmental factors being investigated, as well as the intent and scope of the investigation. DHHS is providing updates to County staff on a weekly basis. DHHS has committed to providing support to the community and releasing any new updates to this ongoing investigation as information becomes available. DEQ is evaluating potential analytical activities in areas of southern Iredell County.

To find current and any future updated information related to thyroid cancer, please visit the Iredell County Health Department Thyroid Information page where you will find a *Frequently Asked Questions and Answers* document that will continue to be updated over time. <https://www.co.iredell.nc.us/1255/Thyroid-Cancer-Information>. For your convenience, within this link you will also find various resources related to thyroid cancer. Additionally, for questions regarding this ongoing investigation please contact the NC Department of Health and Human Services at (919) 707-5900, the NC Department of Environmental Quality at (919) 707-8217, and the Iredell County Health Department Environmental Health Division at (704)-878-5305 Ext. 3456.