

Work on Elevated Thyroid Cancer Concerns in Iredell County

Collaboration & Communication

- **Local Thyroid Cancer Workgroup:** Representatives include Iredell County elected officials, Iredell County and Iredell County Health Department (ICHD) leaders, Mayor of Town of Mooresville, leaders from Iredell-Statesville School System and Mooresville Graded School District, and locally elected state officials. The workgroup has been meeting since August of 2018 to develop strategies to address thyroid cancer concerns.
- **State Partner Telephone Meetings:** Regularly scheduled calls with the NC Dept. of Environmental Quality (NC DEQ), NC Dept. of Health & Human Services (NC DHHS) and Iredell County to discuss current initiatives and priorities.
- **Iredell County Health Department Website:** A Thyroid Cancer Information link was developed that contains an activity timeline, pertinent reports, presentations, media releases and a Q & A document. Go to the below link to view all of this information.
<https://www.co.iredell.nc.us/1255/Thyroid-Cancer-Information>
- **Other communication activities include:** Press Releases, blast faxes to providers, responding to media and citizen inquiries through electronic and telephone communication

Reports

- **Assessment of the Occurrence of Thyroid Cancer in Iredell County and ZIP Codes 28115 and 28117.** This report was published in May of 2018 by the NC DHHS. The report found that based on the Standardized Incidence Ratio analyses, the number of observed thyroid cancer cases in Iredell County and the two ZIP Codes were statistically significantly greater than expected. The report could not be used to determine the cause of the observed cancer or identify possible associations with risk factors. Results were shared with the Occupational and Environmental Epidemiology Branch for review and to assess the feasibility of next steps. See the ICHD website link on thyroid cancer to view the full report.
- **Thyroid Cancer in Iredell County 1995-2016.** This report was published in January of 2019 by the NC DHHS. Because the NC Central Cancer Registry does not collect detailed information about potential environmental exposures, no conclusion could be drawn from this report about the association between any environmental contaminant and thyroid cancer. No community level exposures to radiation were identified in the report although there are several chemicals that have association with thyroid cancer. The report recognized that only a comprehensive research study could determine whether exposure to these or other factors might be associated with rates of thyroid cancer diagnosis. See ICHD website link on thyroid cancer to view the full report.
- **Iredell County Well Water Quality Study Report.** The report was published in April of 2019 by Virginia Tech. Results of the study can be found on the thyroid cancer link on the Iredell County Health Department website.
- **Report on Recommendations for Research.** The report was published in July of 2019 by the NC Thyroid Cancer Advisory Panel. The report recommendations can be viewed on the ICHD website link on thyroid cancer.

Community Meetings

- **Provider Informational Meeting:** This meeting was held on March 21, 2019 at the Mooresville Town Hall. Presentations were made by NC DHHS, NC DEQ, Duke University, UNC-CH, local and state elected officials and a local medical provider.
- **Virginia Tech Water Quality Study Community Meeting:** This meeting was held on April 18, 2019 at Mooresville High School for the 786 study participants to learn more about their private drinking water test results and home filtration systems. Presentations were made by Virginia Tech, NC DHHS, NC DEQ, local and state elected officials and Iredell County Health Department.

- **Coal Ash & Thyroid Cancer Community Informational Meeting:** This meeting was held on May 9, 2019 at South Iredell High School. Presentations were made by NC DHHS, NC DEQ, Duke University, UNC-CH, local and state elected officials and a local provider.
- **Realtor Informational Meetings:** State elected officials and Iredell County Health Department participated in two informational sessions on December 17, 2019 and January 9, 2020 with local realtors.
- **Upcoming Community Informational Meeting:** This meeting is being planned for March of 2020. Presentations will be made by NC DHHS, NC DEQ, Duke University, UNC-CH and local and state elected officials

NC Policy Collaboratory at UNC-CH Initiatives

- **NC Thyroid Cancer Advisory Panel:** This panel convened in May 9, 2019 and included representatives from UNC-CH, Duke University, the National Cancer Institute and the Geisel School of Medicine at Dartmouth. The panel developed a report on recommendations for research that could provide new evidence to explain the increased rates of thyroid cancer in NC. A meeting was held on August 12, 2019 at UNC-CH to review this report and develop a plan of action. Representatives from Iredell County, Iredell County Health Department, local and state elected officials, NC DHHS, NC DEQ, UNC-CH, Duke University and the NC Policy Collaboratory representatives were in attendance.
- **NC Cancer Research Advisory Panel:** This panel was established as directed by Senate Bill 297 (now State Law 2019-145) that was sponsored by Senator Vickie Sawyer. This panel will develop recommendations on strategies for implementation of a research program to determine when cancer cluster or cancer incidents exist in North Carolina. Participants in the panel include representatives from UNC-CH, NC DHHS, East Carolina University, Duke University, Wake Forest University, NC State University, the National Institutes of Health and the Center for Disease Control & Prevention. Iredell County Health Department and local elected state officials are also attending the panel meetings. Meetings will be held monthly from December until March at UNC-CH with a final report of recommendations due to be completed in April of 2020.
- **Iredell County Exposure Assessment Workgroup:** This workgroup was established at the request of Representative John Fraley. They are tasked with the development of a new environmental research study design in an attempt to identify any direct environmental links to cancer. Funding will be requested from the NC General Assembly based on the final study design.

Research Studies

- **Virginia Tech Water Quality Study:** 786 Iredell County wells were tested free for the inorganics found in coal ash such as hexavalent chromium and vanadium. This study was coordinated locally by Iredell County Health Department. Other partners included UNC-CH, Iredell County Emergency Management & Sheriff's Office, the NC Department of Transportation and Rocky River United Methodist Church. Our residents would have paid over \$350,000 had they paid privately to have this comprehensive testing done.
- **Soil Testing funded by the NC Policy Collaboratory:** Soil samples were collected for coal ash residuals at 5 Iredell County schools that were built, added to or renovated between 1995-2001. These years were identified by NC DEQ as when a high volume of coal ash was used as a soil filler for construction projects. Soil samples were collected at various depths at each boring in December of 2019. A sample was also collected at a local park to be utilized as a control. UNC-CH and Duke University are both testing the samples. Once the results of the study are received, the researchers will determine whether or not additional soil testing should be done.
- **Duke University:** This research project is being privately funded.
- **Thyroid Cancer Research Partners:** Gillings School of Global Public Health-UNC, UNC School of Medicine, Occupational & Environmental Epidemiology-NC DHHS, NC Central Cancer Registry-NC DHHS, Brody School of Medicine-ECU, Wake Forest School of Medicine, Nicholas School of the Environment-Duke University, Duke University School of Medicine, North Carolina State University, the National Institute of Health, the Centers for Disease Control & Prevention, the Geisel School of Medicine at Dartmouth, the NC

Policy Collaboratory, the UNC Lineberger Comprehensive Cancer Center and the Iredell County Local Thyroid Cancer Workgroup.

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