

PFAS in NC: Public health response

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Public health role

- **Determine whether detected contaminants pose a risk to human health**
- **Provide health-based guidance on levels of exposure to such contaminants**
- **Conduct risk assessments and risk communication**
- **Provide surveillance of contaminants and conditions**



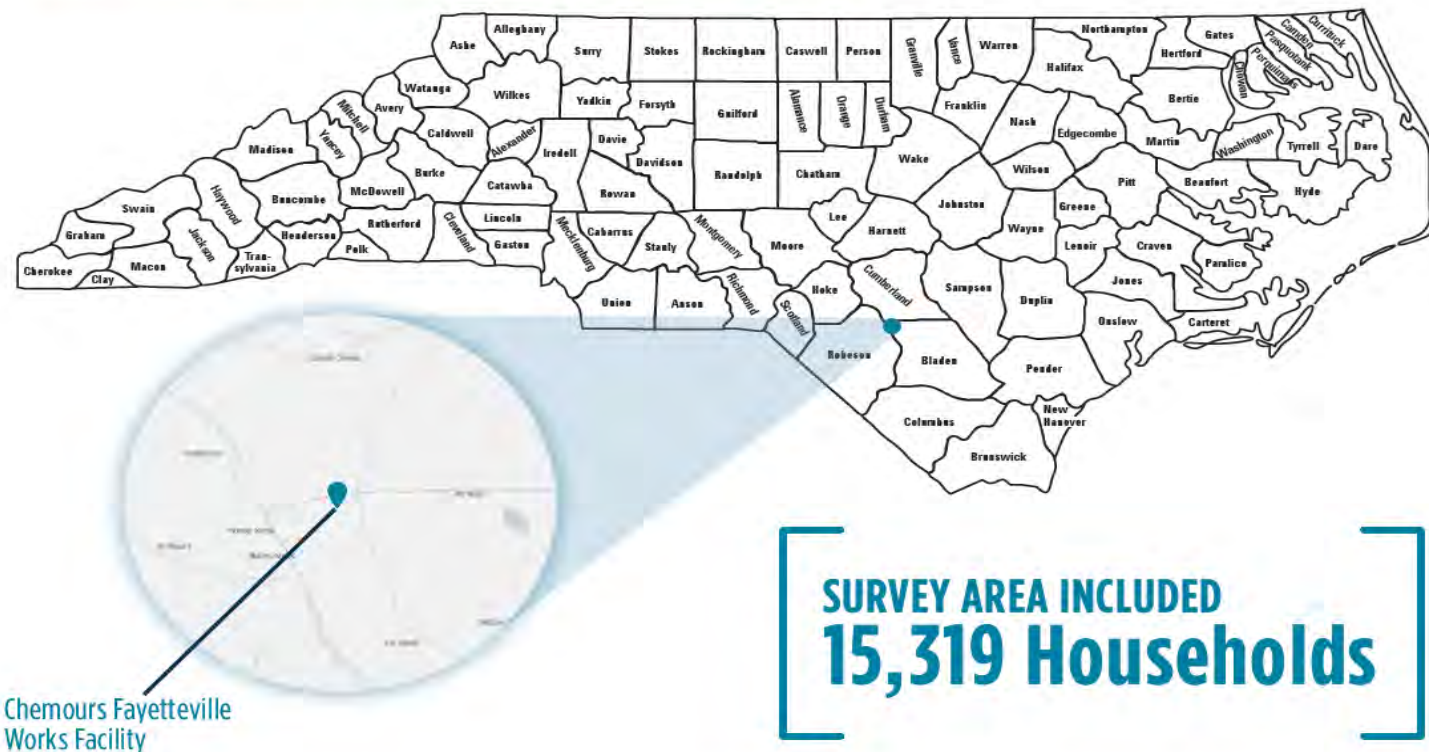
PFAS activities

- **Calculated the provisional drinking water health goal for GenX of 140 ppt (2017)**
- **Conducted a biomonitoring study (N=30) near Chemours plant (2018)**
- **Applied for biomonitoring funds from CDC to measure PFAS exposure in NC residents (2019, good score but not funded)**
- **Conducted a community survey documenting how residents in the Cape Fear region have been impacted by PFAS (2019)**
- **Health education: web, fact sheets, physician's memo, calls**
- **Collaborate on research about PFAS and health, e.g.:**
 - **PFAST Network**
 - **GenX Exposure Study**
 - **PFAS UNITEDDD (national study including NC)**

Cape Fear Per- and Polyfluoroalkyl Substances (PFAS) Community Survey

NORTH CAROLINA • 2019

FIGURE 1. MAP OF NC COUNTIES WITH THE 10-MILE RADIUS SURVEY AREA PULLED OUT

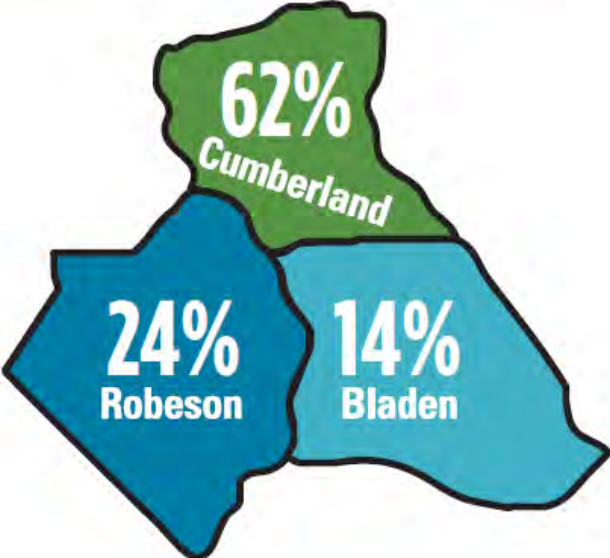


Chemours Fayetteville Works Facility

Results – Demographics

FIGURE 2. SURVEY RESPONSES BY COUNTY (N=1,837)

NOTE: 21 Respondents did not provide their county.



1,858 Responses
12% OF SURVEYED HOUSEHOLDS

Results – Water Usage

FIGURE 4. WATER SOURCE

Main Source of Drinking Water at Home • Questions #3 and 10* • N=1,803 * Respondents were able to select more than one drinking water source for their home.



62%
Private Well



35%
Public Water
(L.E. CITY OR COUNTY)



13%
Bottled Water



2%
Other
(INCLUDES COMMUNITY WELL & FILTER/FILTRATION SYSTEM)



<1%
Don't Know

Results – Water Usage

Water Usage after Receiving Recommendations • Question #7* • N=86

*Respondents were able to select more than one response for this question.



Results – Water Usage

34% changed water use
WITHOUT BEING TOLD TO CHANGE USAGE

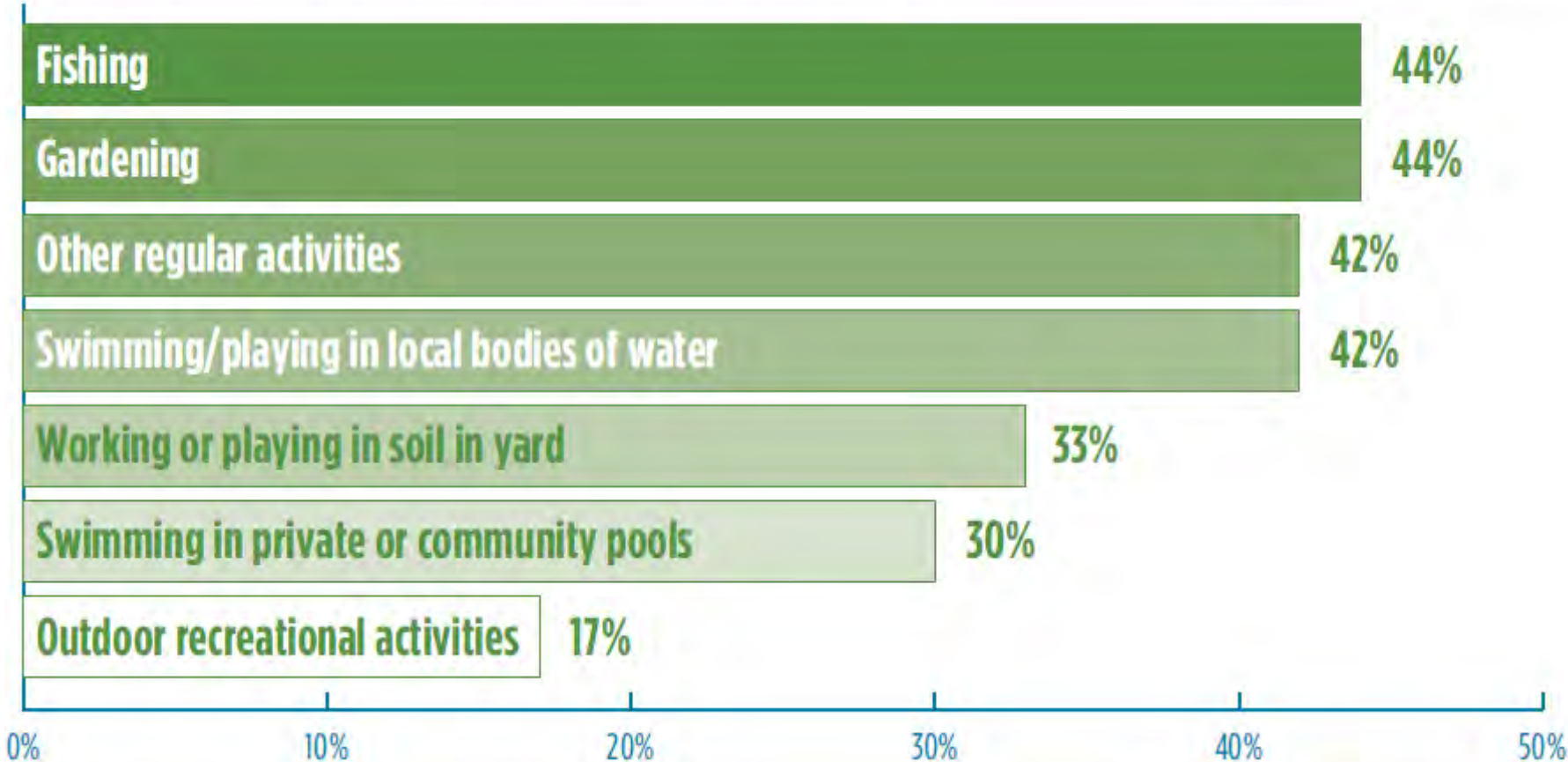
- **62% now use bottled water**
- **16% using filter or filtration system**
- **Why?**
 - **42% concerned about GenX or other PFAS**
 - **14% not related to PFAS**
 - **28% said because of how water looks, smells, tastes**

Results – Behavior Change in 38% of respondents

FIGURE 7. BEHAVIORAL CHANGE AFTER LEARNING ABOUT GENX OR OTHER PFAS

Percentage of households decreasing activities • Questions #18 and 19* • N=709

*Respondents were able to select more than one activity.



Results – Health Concerns

- 44% expressed concerns about health effects

THEME*	DESCRIPTION OF THEME	N	%
→ Uncertain	Don't know, unknown, not sure, uncertain, what are the effects?, need more information	237	35
→ Cancer	Cancer, carcinogen, cancerous	162	24
Other health**	Other health effects noted less frequently, including headaches/dizziness, developmental effects, neurological effects, diabetes, stress or fear, allergies, liver effects, etc.	109	16
Long-term/Chronic effects	Long-term effects, chronic health, concern about future health effects	72	11
Animals	Animals' health (e.g. livestock, chickens, horses, dogs, cats, pets)	49	7
General health	General health risk, all health concerns, anything	47	7
Skin	Skin, eczema, rashes, itching, boils	46	7
Respiratory	Asthma, lung effects, COPD, coughing, sinus issues, respiratory effects	40	6
Gastrointestinal	Stomach, esophageal, gallbladder, intestinal, or gastrointestinal effects, digestive issues, indigestion, nausea	38	6

Results – Communications

- **Need better and more timely communication, especially about exposure and potential health effects**
- **Most households want communication by mail**

FIGURE 11. PREFERRED METHODS OF COMMUNICATION

Upcoming events • Questions #27* • N=1,701

*Respondents were able to select more than one communication method.



Ongoing questions from residents

- **Should I test my water? How?**
- **Can I grow a garden and eat the food?**
- **Are the fish safe to eat?**
- **Can my pets/animals drink this water?**
- **Is my illness caused by PFAS?**
- **How can I stop being exposed to PFAS?**

Public Health Next Steps

- **Health education and outreach**
 - Webpages, factsheets
 - Community Involvement Plan
 - Presentations
- **Collaboration**
 - Researchers
 - Community groups
 - State and local government partners

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Questions?

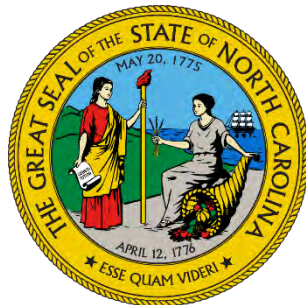
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