

**3<sup>rd</sup> Progress Report for the Commission to Study Environmentally – Triggered  
Chronic Illness  
SB 85 (2019)**

*Submitted by:*

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&  
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## **Introduction**

This is the third report related to Senate Bill SB 85 (2019), which directs the New Hampshire Department of Environmental Services (DES) and the New Hampshire Department of Health and Human Services (DHHS) to improve coordination and collaboration as it relates to environmental health, with a specific focus on data sharing.

Due to the ongoing COVID-19 Pandemic, this report includes a brief summary from both NH DHHS and NH DES.

## **Background**

Senate Bill SB 85 (2019) re-established a legislative commission to study environmentally triggered chronic illness. The objectives of SB85 build on previous work related to House Bill HB 511 (2017) and HB 1356 (2018). The work of this Commission is focused on conducting environmental health surveillance and improving coordination and collaboration between DES and DHHS in order to allocate resources efficiently to reduce exposure to environmental contaminants and prevent disease.

The SB 85 Statement of Intent reads as follows: “The general court recognizes that nearly half of adults in the United States have at least one chronic health condition and chronic diseases are responsible for increased health care costs. Seventy percent of health care costs in the United States are for chronic diseases. Some chronic diseases are known or thought to be associated with environmental causes. According to the Centers for Disease Control, the state of New Hampshire has the highest rates of people with bladder, breast, esophageal, and pediatric cancer in the country. In addition, a double pediatric cancer cluster was identified in the seacoast of New Hampshire in 2014. Therefore, the general court hereby establishes the commission to study environmentally-triggered chronic illness.”

HB 511 (2017) established a legislative commission to study environmentally-triggered chronic illness.

HB 1356 (2018), charged DES and DHHS to develop and implement a method by which the departments share certain health outcome and environmental data. The HB 1356 Preliminary Report submitted in August 2018 includes more information on the status of the activities listed below and is attached in the Appendix.

Specifically, the departments were requested to:

- Update a memorandum of agreement related to data sharing;
- Sign a joint standard operating procedure on how data layers can be shared between the two departments to identify linkages between environmental contaminants and health outcomes;
- Hold a presentation on the departments' ongoing, joint efforts under the Centers for Disease Control and Prevention environmental public health tracking cooperative agreement; and
- Compile a report describing and estimating the cost to perform a 2-way pilot project between the departments on arsenic in drinking water, where both health effects and environmental data exist.

### **Updates from NH Department of Health and Human Services (NH DHHS)**

- Due to the COVID-19 pandemic, most DPHS staff have been working remotely. We have been able to maintain cross-program collaboration via tools that have been provided to us by the agency, such as Zoom, Jabber, and VPN access;
- We are continuing to participate in a Dartmouth led effort to develop PFAS materials specific to NH, and we will review draft documents as they become available;
- The amendment for Dartmouth Cancer Registry Contract is underway to include funding from the NH Drinking Water and Groundwater Trust Fund to enhance the State's work related to environmental and childhood-related cancers. This funding will cover a literature review for environmentally-related childhood cancers, analysis of radiological monitoring data, convening of experts in childhood cancer, re-analysis of childhood cancer data in NH and nationally, and information gathering from families of children affected by cancer to better understand their unmet needs to inform the health department in future program planning;
- The CDC has reduced the funding awarded to NH DHHS for SFY21 for the Comprehensive Cancer Control Program and subsequently we are having discussions about the impact these reductions will have on the capacity of the Cancer Registry at Dartmouth to continue to provide high quality cancer data to researchers and public health professionals;
- NH DES and DHHS were awarded the ATSDR APPLETREE Grant, which has two components:
  1. Conducting site-investigations at hazardous waste sites and other locations to eliminate human exposure with community education and outreach; and
  2. Supporting the Choose Safe Places for Early Care and Education Program focused on the safe sighting of childcare facilities; and
- NH DES and DHHS applied for a collaborative grant from CDC's National Center for Environmental Health focused on building environmental health capacity and leveraging well water quality data to drive action and policy.

### ***Biomonitoring NH TrACE Project:***

The 2019 NH Tracking and Assessment of Chemical Exposures (TrACE) Study led by the NH Biomonitoring Program (BiomonitoringNH), within DPHS, is a statewide public health surveillance study looking at many different metals, pesticides, per- and polyfluoroalkyl substances (PFAS), and other chemicals in NH residents. BiomonitoringNH tested approximately 350 NH residents (6 years and older) as well as the water from their homes. BiomonitoringNH worked with the NH Department of Environmental Services (DES) and the NH Environmental Public Health Tracking Program (EPHT) to collect and test these samples. This type of statewide surveillance study ensures that comprehensive data are collected for: (1) residential history, (2) exposure history, (3) environmental data, and (4) clinical data that allows for more in-depth analysis of potential associations.

Approximately 50 chemicals were tested in human blood and urine, 270 chemicals were tested in private well water, and 90 chemicals were tested in public water. This represents a vast amount of data. The EPHT Program, which also sits within DPHS, is responsible for the joint analysis of this data and routinely accesses shared project folders on both the I Drive and secure project folders on the secure DHHS server. Summary reports will be shared with all TrACE Study participants. The summary reports

and supporting information will also be shared publicly through several channels including the NH Health WISDOM Data Portal and Conference Presentations.

Creation and dissemination of the Participant Summary Report was delayed due to COVID-19 response activities within the Public Health Lab. However, the Biomonitoring NH Team plans to complete the reports and send them to participants within the next few months. Once finalized, the reports will eventually be made available on the WISDOM Data Portal.

## **Updates from NH Department of Environmental Services (NH DES)**

### ***Distribution of Filter Pitchers to Vulnerable Populations:***

DES, in cooperation with DHHS and the state's network of Women, Infant, and Children (WIC) clinics, has hired a contractor with funding from the NH Drinking Water and Groundwater Trust fund to implement a project which will provide filter pitchers to an estimated 524 low-income pregnant women using private wells with elevated arsenic, and to provide follow-up support to program participants. The project is designed to (1) establish a sustained practice among those families of using filter pitchers and replacing filter cartridges as needed, (2) generate valuable information regarding the effectiveness of this approach to reducing exposure to contaminated drinking water and (3) reinforce a public information initiative regarding the use of certain verified filter pitchers as an affordable means of treating drinking water from private wells, particularly for pregnant women. In addition, the project will seek to educate participants about the importance of continued well water testing. The DES-DHHS Project Advisory Committee has worked with the contractor to develop materials and protocols for the project. Roll-out was delayed due to the closure of WIC clinics to in-person services. The contract has been modified and additional funding provided to roll-out the project (begin enrolling participants) in September 2020 (two months later than initially planned) virtually through phone contact and mailing of water test kits to participants.

### ***Statewide Private Well Sampling Initiative***

The Statewide Private Well Sampling Initiative is a NHDES project funded by the New Hampshire Drinking Water & Groundwater Trust Fund to provide homeowners with information about the quality of their drinking water, and when necessary, steps that can be taken to improve water quality. The project involves sampling of nearly 500 randomly selected private drinking water wells and analysis of those samples for over 250 chemicals. It is the first statewide assessment of bacteria, nitrate, lead, fluoride, manganese, arsenic, radionuclides, and salt to be conducted in the state. The battery of tests also includes several emerging contaminants, including perchlorate, 1,4-dioxane, PFAS, and pesticides and their breakdown products. Most of the sampling and analysis have been completed to date, but the COVID-19 pandemic has delayed collection of some remaining samples. More information is available about the study at the following link: [https://www4.des.state.nh.us/nh-dwg-trust/?page\\_id=998](https://www4.des.state.nh.us/nh-dwg-trust/?page_id=998)

NHDES and DHHS partnered to leverage the impact of this study by including nearly 100 homes that were also randomly selected to participate in DHHS's TrACE biomonitoring study (see above). This collaboration will provide information about the relationship between chemicals measured in drinking water and in the bodies of the study participants.

## **Recommendations**

We look forward to continuing to engage in this work as we further refine our data sharing practices and find innovative ways to use data in order to drive decision making, while also recognizing the limitations of the data and resources available to support this work. In collaboration with the Commission, we will explore further opportunities to improve data sharing and analysis of environmental exposure and health outcome data.

## **References Used in this Report**

NH DES OneStop Data Portal: <https://www.des.nh.gov/onestop/>

NH Environmental Public Health Tracking Program: <https://www.nh.gov/epht/>

NH Health WISDOM Data Portal: <https://wisdom.dhhs.nh.gov/wisdom/#main>

BiomonitoringNH Program: <https://tinyurl.com/BiomonitoringNH>

2019 NH TrACE Study: <https://tinyurl.com/2019TrACEStudy>