



The State of New Hampshire
Department of Environmental Services



Robert R. Scott, Commissioner

September 2, 2022

Hon. Mindi Messmer, Chair
C/O Senator Thomas Sherman
Commission to Study Environmentally-triggered Chronic Illness
State House
Room 107
107 North Main Street
Concord, NH 03301

Re: *Report on Data Sharing between the New Hampshire Departments of Health and Human Services (DHHS) and Environmental Services (DES)* (RSA 126-A:76, III) Chapter 229:5

Dear Ms. Messmer:

As required by SB 85 (2019), an act reestablishing the Commission to Study Environmentally-Triggered Chronic Illness, please find attached a report that summarizes recent efforts by DHHS and DES that demonstrates our commitment to collaboration and data sharing as required under paragraph 1.

The following documents are enclosed:

- SB 85 DHHS/DES 7th Progress Report

The Department staff will be available to answer questions about the report to the Commission to Study Environmentally-triggered Chronic Illness at the October meeting or at another future meeting as determined by Commission members and staff availability. A copy of the report will be provided to all Commission members electronically to allow review in advance of the meeting.

Respectfully Submitted,

Patricia Tilley, Director
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7th Progress Report for SB85

Submitted by:

New Hampshire Department of Health and Human Services
Division of Public Health Services

&

New Hampshire Department of Environmental Services

September 2022

Introduction

This is the seventh report related to Senate Bill (SB) 85 (2019), which directs the New Hampshire (NH) Department of Environmental Services (DES) and the 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.

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 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.

Specifically, the departments were tasked 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), Division of Public Health Services (DPHS)

Biomonitoring NH Program

BiomonitoringNH, a program within the New Hampshire Division of Public Health Services (NH DPHS), Bureau of Public Health Laboratories, Chemistry Program, seeks to understand the environmental chemical body burden of NH residents. This goal is accomplished via three targeted investigations and one surveillance study with funding from the Centers for Disease Control and Prevention. Most recently, BiomonitoringNH collaborated with the United States Geological Survey (USGS), NH Environmental Public Health Tracking Program (EPHT), and the NH Department of Environmental Services (NHDES) on a targeted assessment of ten geographic areas in NH at increased risk for uranium groundwater contamination. The Evaluating Metals in Private Wells and people for Exposure Reduction - Uranium (EMPoWER-U) Study recruitment areas were identified using USGS modeling and hot spot analysis of test results from NH DPHS and NHDES.^{1,2}

Uranium is a naturally occurring element present in NH groundwater due to the state's bedrock geology with potential for chronic health effects for those who consume contaminated water (kidney damage).³ With close to half of the state's residents relying on unregulated private drinking water wells, exploring residential exposure to uranium and other metals via biomonitoring (testing urine) and paired environmental analysis (testing private well water) with the goals of understanding and reducing this exposure is a priority for BiomonitoringNH and its partners. The USGS, NH EPHT, and NHDES assisted BiomonitoringNH with population selection, water sampling, and funding water and air (radon) testing for this project.

The EMPoWER-U Study was launched late November 2021 and 271 people from 199 homes participated, just one home shy of the study goal of 200 households (20 homes from 10 targeted areas). Urinary arsenic speciation testing has been completed and urinary multi-element testing for a panel of 16 metals and metalloids is in progress. Water and air testing is mostly complete; however, many water results are still pending due to a detailed quality control process. BiomonitoringNH is working closely with the USGS and the NHDES on formatting the water quality information into easy-to-read reports, a process that has been moving forward over the past several months. The study was designed so that exposure to water contamination could be assessed in part by biomonitoring testing and so there is overlap between the panels (metals being assessed). BiomonitoringNH will work with the NHDES, the USGS, and the NH EPHT Section to analyze these paired data and look for associations between environmental exposure and body burden. The data gathered will help inform USGS modeling and NH DPHS educational interventions.

Home air radon testing was a unique addition to this project compared to previous BiomonitoringNH investigations and was provided through the support of the NH Radon Program. Radon is the decay product of uranium and it can cause chronic health effects. Radon gas exposure is the leading environmental cause of lung cancer for the US population with an excess of 100 NH resident deaths per year from this disease due to long-term radon exposure.⁴ The EMPoWER-U Study will provide NH residents with important information on their risk of uranium, metals, and radon exposure and the data collected will serve the greater purpose of identifying which populations are most at risk for exposure in order to target education, prevention services, and develop best practices and legislation. BiomonitoringNH would be grateful to share findings from this study with the

Commission once the study is complete. Questions can be shared with Dr. Kathleen Bush or emailed to the program at BiomonitoringNH@dhhs.nh.gov.

BiomonitoringNH is also facilitating a new memorandum of understanding (MOU) with attached data sharing agreements (DSAs) for the NH DHHS and the NHDES. As previously mentioned, HB 1356 (2018) tasked the departments with signing a MOU for data sharing; however, it expired June 30, 2022. Due to the nature of the data that is often shared between the departments, which can contain personally identifiable information (PII) and the strict rule that NH DHHS must maintain federal Health Insurance Portability and Accountability Act (HIPAA) compliance, the DSAs are a new feature to this MOU and will take time to develop. Representatives from both departments have been meeting regularly as a workgroup and are collaborating with their informatics and legal teams as well as the NH DHHS Privacy officer to draft the MOU and DSAs.

References

1. Exceedance Probability and Predictor Data for Uranium and Radon Concentrations in New Hampshire Groundwater, United States Geological Survey, <https://www.sciencebase.gov/catalog/item/60c0cdcd34e86b93894048b>.
2. Drinking Water - Private Well Water Quality, WISDOM Health Data Portal, New Hampshire Division of Public Health Services, <https://wisdom.dhhs.nh.gov/wisdom/index.html>.
3. Natural and depleted uranium – ToxFAQs, Agency for Toxic Substances and Disease Registry, <https://www.atsdr.cdc.gov/toxfaqs/tfacts150.pdf>.
4. Radon in Your Home – An overview for New Hampshire Homeowners, NH Department of Environmental Services, <https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/dwgb-3-12.pdf>.

Merrimack Cancer Investigation

In January 2018, the DHHS released a report of their analysis of cancer incidence in Merrimack, NH that was completed in response to community concerns related to the detection of perfluorooctanoic acid (PFOA) drinking water contamination. This report showed that cancers associated with PFOA were not higher in Merrimack when compared with the rest of New Hampshire.

In December of 2021, DHHS shared the results of an updated analysis of cancer incidence in Merrimack which showed a statistically significant excess of kidney cancer cases in Merrimack, when compared to the rest of the state. Results of these analyses were shared with the 737 Commission on the Environmental and Public Health Impacts of Perfluorinated Chemicals.

Slides from HB737 Commission Meeting on 12/6/21 available here:

<https://www.dhhs.nh.gov/dphs/cdpc/documents/737-dec102021-merrimackdata-final.pdf>

Recording of virtual community meeting on 1/27/22 available here:

<https://www.youtube.com/watch?v=Rx0bdocLUIU>).

In December 2021, the DHHS began convening the Cancer Concern Review Team (CCRT) for the purpose of guiding next steps of an investigation into the excess of kidney cancer in Merrimack, NH. The CCRT has worked to complete additional data analysis to complete the assessment phase of the investigation. As these analyses

are completed the CCRT will make a conclusion about whether to progress into determining the feasibility of conducting an epidemiological study.

This decision will be based on the following criteria:

Decision to close the investigation at Step 2
Are there enough cases and a large enough population for statistical stability? In general, the population size of a typical census tract is the smallest denominator that will allow reliable results to be generated.
If there is a large enough numerator for statistical stability, how likely is it that this SIR might have occurred by chance, assuming that the underlying incidence rates were not elevated (for example does the CI cross 1.0)?
Are there environmental contaminants and/or events that could be related to these cases?
Are there any population related issues (e.g., a substantial number of people moving into the community) that might in part explain the observed cancer excess?
Has there been an increase in the incidence rate of the specific cancer overtime? How many more observed cases are there than expected?
Are the demographic characteristics of these cases unusual for the type of cancer?

A draft report sharing the results of additional data analyses and decision-making is being reviewed internally and will be shared upon approval.

NH Environmental Public Health Tracking (EPHT)

The NH Environmental Public Health Tracking Program is excited to announce that the program was refunded under a new 5-year Cooperative Agreement with CDC. In the last year, the EPHT program has launched two town-level dashboards focused on private well water quality and childhood lead poisoning. The program continues to build on previous projects to integrate data and explore environmental exposures and health outcomes across the State. Looking ahead, the program expects to launch new dashboards related to radiation monitoring and radon in air, and will also continue to focus on user testing and training to make sure that data products meet the needs of diverse stakeholders to support decision making and public health interventions.

NH Environmental Health Conference

Through NH DES' collaboration with the Division of Public Health Services, Environmental Health Integration Team, steps have been taken to rebrand a NH based conference that had not met in person since 2019. This annual conference historically had focused on Healthy Homes, and through this new collaboration, NH DES will help sponsor the upcoming [Environmental Health Conference](#) scheduled for October 27, 2022. This 'in-person' conference will be a full day and is expected to draw an audience of an estimated 180 attendees. The agenda includes topic such as indoor and outdoor air quality, the built environment (radon, lead, carbon monoxide, mold, VOCs), climate and health, and environmental health policy.

Updates from NH Department of Environmental Services (NH DES)

NH Water Well-ness Initiative: Distribution of Filter Pitchers to Vulnerable Populations

NH DES, in cooperation with DHHS and the state's network of Women, Infant, and Children (WIC) clinics, is conducting a project to provide free water testing and filter pitchers to low-income pregnant women using private wells with elevated levels of contaminants. The project, known as NH Water Well-ness Initiative, is funded by the NH Drinking Water and Groundwater Trust Fund. Following a pandemic related delay, the pilot phase of the program, which was limited to WIC locations in Rockingham and Hillsboro counties, began in September of 2020 and ran through March 2022. Through the pilot, WIC services remained remote. Pandemic operations coupled with all that people are balancing through the pandemic impacted the level of participation.

Following the pilot-phase, the program was evaluated, and improvements were made based on lessons learned. Evaluation of the program included review of both process and outcomes, with qualitative and quantitative data collected through program records, as well as interviews with and surveys of WIC participants and WIC nutritionists. As a result of the evaluation, the program was expanded to address four additional contaminants including lead, copper, uranium, and manganese. Additionally, an address look up tool was created to assist WIC Nutritionists in identifying which WIC participants are drinking from private, un-regulated wells.

In April 2022, the Initiative was expanded state-wide, and WIC Nutritionists from all four regional offices were trained on how to implement the project for their pregnant participants. The project team continues to work on expanding the reach of the Initiative, as WIC offices have returned to in-person services, and WIC Nutritionists gain more experience with promoting the Initiative and enrolling their pregnant participants.

The program has gained local and national attention. The Association of Public Health Laboratories highlighted the program as an example of a promising Environmental Justice Practice in their association's journal in the summer of 2021. A researcher from the Prevention Research Center at the Harvard T.H. Chan School of Public Health has interviewed the project team for a series of briefs and an article that they are writing about strategies to improve safe drinking water in the homes of low-income families with young children. In addition, a staff member at Dartmouth Hitchcock Medical Center interviewed the team to learn more about the program so that they can consider implementation of a similar program among their patient population.

ATSDR's (Agency for Toxic Substances and Disease Registry) Partnership to Promote Localized Efforts to Reduce Environmental Exposure (APPLETREE):

New Hampshire Department of Environmental Services (NHDES) was awarded a three-year cooperative agreement with the Agency for Toxic Substances and Disease Registry (ATSDR); the re-established APPLETREE program is now in the third year of its grant. APPLETREE stands for the Agency for Toxic Substances and Disease Registry's Partnership to Promote Local Efforts to Reduce Environmental Exposures; a formal partnership enabling us to be successful at our work is established between ATSDR, NHDES, and the Department of Health and Human Services, Division of Public Health Services (NH DHHS DPHS).

The team includes staff from both partnering NH agencies; we have expertise in health risk assessment, environmental health, toxicology, health education, community engagement, and project

management. APPLETREE's primary goal is to help reduce NH residents' exposure to hazardous chemicals, with a focus on National Priority List (e.g., Superfund) sites and other state and community identified sites. A component of the grant largely staffed by NH DHHS DPHS, Choose Safe Places for Early Care and Education (Choose Safe Places), is specifically focused on assuring safe siting of child care facilities. The goal of reducing exposure to hazardous chemicals is accomplished by identifying and assessing potential exposures, summarizing findings, developing health-based recommendations, and engaging community members to promote action to reduce exposure.

There have been several program activities and successes to date, all of which involved cross-agency collaboration as well as collaboration with partners external to state agencies. A few examples that highlight programmatic capacity and collaboration with partners are included below:

- Routine sampling conducted in Hooksett for a State project showed uranium present in groundwater at high levels. While there are guidelines and recommendations related to residential well water-quality, testing and treatment is not required, and Hooksett is not the only community with elevated uranium in the state. NHDES worked in coordination with NH DPHS, and with the United States Environmental Protection Agency (EPA) to develop and implement a plan to sample residential well-water in the Hooksett Community. The goal of the sampling was to understand the extent of exposure to harmful contaminants, and to develop health-based recommendations to reduce exposure and risk. APPLETREE staff have presented findings and recommendations to the community via an oral presentation at a town council meeting, through a formal written report, and through a summary factsheet that has been posted online and made available in print. Health based recommendations include additional well-water testing, testing of home air for radon gas, and installation of treatment to reduce exposure where contaminants are found in water and/or air. The town of Hooksett has conducted a feasibility study to assess the potential for connection of some residents to public water and the APPLETREE team and other NH DES programs remain in communication with town administration. The study indicates that the town will require additional funding sources, and these are being explored through state and federal avenues. APPLETREE is committed to supporting Hooksett efforts to reduce exposure and will ensure that programmatic efforts complement any larger exposure reduction efforts implemented by the town, including potential connection to public water for some community members. Cost effective educational opportunities for well owners are also being discussed. To celebrate its bicentennial, Hooksett distributed a summer newsletter, which also included APPLETREE's published resources. The town Administration continues to engage the APPLETREE program when in need of environmental health assistance and agency introductions. This relationship serves as a model for future state-identified communities facing exposures.
- Through a contract established with the Trustees of Dartmouth, the APPLETREE team is working to finalize training and resources aimed at supporting local leaders in response to community environmental health concerns. This work is being conducted in coordination with the NH DHHS DPHS Cancer Program and with stakeholder engagement to inform the development of training and resources. Stakeholders participating include State legislators, health professionals, town administration and representatives, and municipal employees. The first stakeholder engagement occurred in November 2021. Feedback has resulted in the development of three trainings on environmental health topics to be

offered in series as well as a resource tool called the “New Hampshire Environmental Health Guide (NH-EHG). This guide is designed to help local leaders and other stakeholders find the appropriate State resource or agency quickly to address environmental concerns raised by members of their community. The trainings offered are freely accessible and cover an introduction and use of the NH-EHG, an overview of cancer and addressing cancer concerns in communities, and a presentation on environmental contamination and risk. Links to training videos and the NH-EHG can be found on the NHDES website here: <https://www.des.nh.gov/new-hampshire-appletree>.

- Through a contract established with the University of New Hampshire, the APPLETREE team worked with the UNH Survey Center to develop and implement data collection tools to inform the programs efforts. Data collection tools being developed and implemented include a statewide survey, Granite State Poll questions (for survey validation purposes), and four focus groups. Results for the statewide survey, including environmental health knowledge, risk prioritization trends, and recreational habits, are complete. Select survey questions have been repeated and a summary will be created for the APPLETREE team. Four focus groups: 1) targeting Hooksett residents; 2) targeting residents across the state of New Hampshire; 3) targeting local health officers; and 4) targeting childcare licensing coordinators have met with UNH Survey center. Focus group results are summarized in a written report. All activities associated with this initiative are complete and survey results will be used for future risk assessments and educational materials.
- One critical function of the APPLETREE team is to provide support to state and local programs working at Superfund sites designated by the Environmental Protection Agency (EPA). To this end, APPLETREE meets quarterly with NH DES site managers for Superfund sites to evaluate progress together and to provide technical support when exposure risks are present. These meetings have expanded to include EPA community involvement coordinators and remedial project managers. APPLETREE therefore serves as a hub for exposure reduction strategy for multiple agencies at the 23 Superfund sites in New Hampshire. These meetings function to streamline communication between the agencies and promote a shared understanding of the community’s evolving environmental health concerns. Using this method, we can provide prompt and focused technical assistance as well as health education. Site specific messaging and communication is often reviewed collectively rather than piecewise. Moreover, collective promotion of upcoming educational opportunities, public meetings, trainings, and administrative news ensures that we are providing the most up to date opportunities to the public. These meetings have also inspired site managers to utilize their time in new ways. For example, NHDES site managers have used meetings as working meetings for technical assistance, as cross training meetings for one another, and for specific sites or meetings that require substantial EPA Region 1 participation. A new risk assessor, Dr. Kelly Thrippleton-Hunter, was hired in 2022 to complete the team’s planned roles, increasing capacity for State evaluation of exposure data.
- Recently, towns with historical or known environmental exposures have received a lot of communication regarding drinking water quality. To clarify the messages of multiple reports, written for distinct and separate purposes, APPLETREE engaged the Agency for Toxic Substances and Disease Registry (ATSDR) and these communities. For example, APPLETREE moderated ATSDR’s public presentation to Merrimack and NH DES provided logistical support for virtual display in February 2022. These interactions blossomed into a “fire-side chat” meeting that APPLETREE continued with the communities, strengthening trust and working relationships. It is anticipated that APPLETREE will

continue to hold these and similar methods for outreach in 2022-2023 with a goal of connecting communities to academic institutions and partners. Another such example occurred in July 2022, in which APPLETREE provided logistical support and state contact support for ATSDR's public presentation to residents in and around Pease Airforce Base. Specifically, this public meeting provided clinical guidance for medical providers in New Hampshire who may be receiving calls or concerns from patients exposed to PFAS near Pease. Finally, APPLETREE and ATSDR will continue to collaborate on public presentations and harmonized messaging for New Hampshire residents. Currently, we are working with NHDES water engineers and water systems records in Merrimack as ATSDR completes work on a report of drinking water exposures and recommendations for the community.

New Hampshire's Choose Safe Places for Early Care and Education Program, an APPLETREE Program:

Because ATSDR is committed to promoting the healthy development of children, ATSDR expanded the scope of APPLETREE in 2017 to include Choose Safe Places for Early Care and Education (CSPECE). The NH Choose Safe Places Program (NH CSP) is working to protect children from harmful chemicals in child care facilities by: resource sharing with and training for local governments including health officers, developing a private well-water testing initiative, identifying opportunities for professional development for child care providers, working with state child care licensing and development agencies to identify best practices to improve the inspection and siting process, and improving environmental health guidance and best practices for early care and education programs.

The NH CSP work is carried out using a multi-disciplinary approach. A statewide advisory team was created to provide guidance to the CSP program. Committee members include child care providers and provider-based regional organizations, health and human services staff (Child Care Licensing, Bureau of Child Development and Head Start Collaboration and the Division of Public Health Services), local health officers, staff from the NH Department of Environmental Services, the NH APPLETREE program, and NH Child Care Aware of America representatives. Advisory meetings are held virtually on a monthly basis, which has been a plus for partners who live remotely.

Local health officers' outreach has occurred via surveys and focus groups and through the health officer liaison with the Division of Public Health Services at the NH Department of Health and Human Services. Engagement enabled the assessment of gaps and opportunities within the child care landscape. Partnering with local health officials has also increased understanding of the resources available to educate child care providers on environmental health--leading to more providers receiving education and resources. Children's environmental health has become a greater priority at the local level due to the NH CSP work. Through this local work, the NH CSP staff learned more about child care licensing and inspection processes and identified potential opportunities for action and improvement.

To improve local child care providers' knowledge of environmental health, NH Choose Safe Places provided free training by purchasing usages of the Eco-Healthy Child Care®'s Protecting Children's Environmental Health e-course for state child care providers. The course is approved for adult learning clock hours in the state of NH. To date 100+ courses have been taken for free through this collaboration.

Finally, the NH CSP program is piloting free water quality testing (including the NH Public Health Lab standard testing package plus radon, VOCs and PFAS) for NH child care facilities. Voluntary sampling is occurring for licensed child care facilities using private wells as their water source. Providers also receive a toolkit with well water testing and treatment information with links to additional resources, to provide them with a long-term resource. This free testing effort is being coordinated with the New Hampshire Department of Environmental Services lead testing for schools and child cares via EPA's WIIN grant. For child care facilities that require remediation, funds from the American Rescue Plan Act, NH Department of Environmental Services' PFAS program, and EPA's WIIN program can be used. NH CSP will use data gathered from sampling to identify areas of concern for elevated contaminants in water and direct efforts towards outreach and education in these areas.

Lead in Drinking Water at NH Schools and Child Care Facilities:

On July 8, 2022, Governor Sununu signed House Bill 1421, which made several significant changes to the 2018 law that requires all public and private schools and licensed child care facilities to test for lead in their drinking water. Most notably, the new law decreased the action level for lead in drinking water at schools and child care facilities from 15 parts per billion (ppb) to 5 ppb.

Under the new law, schools and child care facilities must correct all locations where previous testing results showed lead levels at or above 5 ppb. Facilities have 90 days to review previous testing results and submit a remediation plan to the New Hampshire Department of Environmental Services (NHDES) for approval. Also under the new law, facilities that have not previously tested their water for lead have 30 days to do so. The new law also changes the frequency of testing; three rounds of testing must be completed by June 30, 2024.

To support schools and child care facilities in meeting these requirements, NHDES launched the Get the Lead Out of Drinking Water Program. The program provides resources and technical support to schools and child care facilities to complete testing and remediation. The program has been contacting facilities to collect outstanding data and remediation information and let them know about the changes to the law. As part of this effort, NHDES recently re-launched its lead in drinking water website to provide additional resources to schools and child care facilities (<https://www.des.nh.gov/water/drinking-water/lead>).

Testing data are now available on the website in a user-friendly format, in addition to information for facilities on collecting samples, remediating locations that test above the action level, and reporting information to NHDES. In addition, the University of New Hampshire (UNH) GRANIT is creating a GIS-based web portal / data dashboard to visualize and analyze lead in drinking water data that will be linked from the website.

Funding for these efforts is from the U.S. Environmental Protection Agency (USEPA) Water Infrastructure Improvement for the Nation (WIIN) Act. WIIN funding will also cover testing costs for public schools and licensed child care facilities for an anticipated two rounds of testing. Within the next month, the Get the Lead Out of Drinking Water program team will be reaching out schools and child care facilities with information on how to properly collect water samples for lead and have samples analyzed for free.

To support remediation efforts, the New Hampshire Department of Education (NHDOE) secured a grant totaling \$1.6 million from the New Hampshire Drinking Water and Groundwater Trust Fund (DWGTF). This Lead Remediation Grant reimburses public and nonpublic schools for 50% of the costs of remediation of drinking

water locations with lead results at 5 ppb or higher. NHDES works with schools to provide support for remediation efforts and helps facilitate the grant application and approval process with NHDOE.

NHDES is collaborating with programs at NH DHHS, including Child Care Licensing, Environmental Public Health Tracking (EPHT), Healthy Homes and Lead Poisoning Prevention program, and the Choose Safe Places program, as well as NH DOE, on ways to analyze and share data and coordinate messaging with schools and child care facilities.

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 collected approximately 490 samples from randomly selected private drinking water wells and analyzed the samples for over 250 chemicals. It was 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 included several emerging contaminants, including perchlorate, 1,4-dioxane, PFAS, and pesticides and their breakdown products. All of the sampling and analysis have been completed and participants have been provided their result. Data review and summation will be completed by NHDES in the coming months. More information is available about the study at the following link: 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. The collaboration provided information about the relationship between chemicals measured in drinking water and in the bodies of the study participants. Findings have been presented in several settings, including at the Commission to Study Environmentally-triggered Chronic Conditions, and at the NHDES Drinking Water Source Protection Conference in May of 2021.

NHDES Private Well and Risk Communication:

NHDES recently created and filled a position within the Water Division, the Private Well and Risk Communication Coordinator. Having a full-time person dedicated to private well work and risk communication has enabled NHDES to start making greater inroads into the challenges issues posed by the fact that nearly half the state's population is served by water supplies for which there is no oversight with respect to safety.

Targeted Education and Sampling for Private Well Owners

In 2021-22, NHDES conducted free targeted private well sampling in three towns: Auburn, Pelham, and Bethlehem. These areas were chosen due to the suspected presence of high levels of naturally occurring uranium in well water. Residents were invited by mail to participate in the free well testing, and those that participated were mailed sample bottles, collected their own water samples, and mailed them to the lab. A summary report on results for each town was distributed to participants and town officials. NHDES also held a workshop for each town, where residents learned about contaminants in their area, potential health impacts, and how to treat their water if contaminants were found above health limits. Workshop participants learned about follow-up testing for their well water and were encouraged to test for radon in the air of their homes. Over 300 private well owners participated in the program. Collaboration with Environmental Public Health

Tracking (EPHT) Program was key to the success of this program, analyzing data, preparing a report on outcomes for each town, and assisting with survey/data collection from participants.

Seacoast Private Well Initiative

In 2022, NHDES launched the Seacoast Private Well Initiative, which includes free well water testing, educational workshops, and a drinking water fair to 12 Seacoast towns. The Seacoast Private Well Initiative was created by the Seacoast Commission on Long-Term Goals and Requirements for Drinking Water (The Seacoast Commission) and received funding from the Drinking Water and Groundwater Trust Fund. All private well owners in the 12 towns are invited to participate in an educational workshop, followed up by free water testing. Local coordinators have been recruited to assist with getting the word out, and assisting with organizing logistics such as identifying workshop venue and assisting with water sample drop offs. The first workshop is occurring in September 2022. The Initiative will also provide free filter pitchers to low-income participants, and a drinking water fair will be held at the end of the Initiative so residents can learn more about private well contaminants, resources available, options to reduce contaminants they may have discovered in their water. NHDES is collaborating with NH DHHS EPHT program on this important project.

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 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>