

New Hampshire SB85

Commission to Study Environmentally-Triggered Chronic Illness

December 8, 2020 10 AM-11:28:35 AM

Available via NH Senate Livestream on YouTube @
<https://www.youtube.com/watch?v=ZDd8pCRJ-2M>

-Mtg opened @ 10 AM by SB85 Commission Chair, Sen. Tom Sherman, District 24 who welcomed the panel and public prior to reading the Right to Know Law compliance statement

-Sen. Sherman/ Requests that Rep. Salloway or Nancy Murphy take notes and confirms with Allan Raff (NH Senate Admin.) that meeting is being recorded

-Roll call/ Attendance (Sen. Sherman) 11 present/ 3 absent

Sen. Tom Sherman- present/ home in Rye / alone in room

Sen. Jeb Bradley- *absent*

Rep. Gary Woods- present/ home/ alone

Rep. Jeffrey Salloway- present (at home)

Rep. Bill Nelson- present 7" into mtg/ Brookfield Town Office Bldg/ Town Clerk in other office can hear

Rep. Charles McMahon- present/ home/ alone

Katie Bush, Ph.D., NH DHHS, DPH- Concord office/ one colleague in room

Mike Wimsatt, NH DES, Dir. Waste Management Div. - Concord office/ alone

Amy Costello, MPH, Dir. Center Health Analytics, UNH- present/ home in Dover/ alone in room

Dan Tzizik, PA- *absent (d/t military commitment)*

Margaret DiTulio, APRN- present/ office in Atkinson/ alone

Hon. Mindi Messmer- present/ home office in Rye/ alone

Hon. Nancy Murphy- present/ home in Merrimack/ alone in room

Robert Timmins- *absent*

-Sen. Sherman/ Reviewed meeting agenda

-Identified need for a "reliable and elected clerk"

-Asked for volunteers; seeing none, sought nominations

-Rep. Woods/ Nominates Nancy Murphy for Commission Clerk

-Rep. Salloway/ Seconds Rep. Wood's nomination

-Hon. Murphy/ Would prefer to defer to someone with better technology skills

-Sen. Sherman/ Suggests that Rep. Salloway and Rep. Woods will provide assistance

-Sen. Sherman/ Asks if Nancy Murphy will agree to 1 year term

- Hon. Murphy/ Asks if this can be revisited prior to that time
- Sen. Sherman/ Agrees
- Sen. Sherman/ Asks, and determines there is no need for further discussion
- Sen. Sherman/ Calls the roll re: Rep. Wood's nomination of Nancy Murphy as Commission Clerk:
 - Roll call: 11 yea/0 nay
 - Sen. Tom Sherman- yes
 - Rep. Gary Woods- yes
 - Rep. Jeffrey Salloway- yes
 - Rep. Bill Nelson- yes
 - Rep. Charles McMahan- yes
 - Dr. Katie Bush- yes
 - Mr. Mike Wimsatt- yes
 - Ms. Amy Costello- yes
 - Ms. Margaret DiTulio- yes
 - Hon. Mindi Messmer- yes
 - Hon. Nancy Murphy- yes
- Sen. Sherman/ Thanked Hon. Murphy for her willingness to accept Commission Clerk role and provides assurances of help
- Sen. Sherman/ Next Order of Business: Minutes from last meeting
 - Discussion or corrections? None
- Rep. Salloway/ Motion to approve
- Rep. McMahan/ Seconds Rep. Salloway's motion
- Sen. Sherman/ Roll call vote to accept prior meeting minutes: 11 yea/ 0 nay
 - Sen. Tom Sherman- yes
 - Rep. Gary Woods- yes
 - Rep. Jeffrey Salloway- yes
 - Rep. Bill Nelson- yes
 - Rep. Charles McMahan- yes
 - Dr. Katie Bush- yes
 - Mr. Wimsatt- yes
 - Ms. Costello- yes
 - Ms. DiTulio, APRN- yes
 - Hon. Mindi Messmer- yes
 - Hon. Nancy Murphy- yes
- Sen. Sherman/ Requests updates from Data and Education Subcommittees

-Data Subcommittee Update

-Dr. Bush/ Spoke for Data Subcommittee o/b/o Dan Tzizik who was elected Chair at the most recent subcommittee meeting; states members will take turns providing input; there are a few products to share with the group; met twice since last full commission meeting- once on 11/17/20 where we reviewed a draft report that is essentially a summary of our work and what we talked a bit about last time; this can be shared and put on website after today's meeting; draws largely on previous final reports- largely the 511 Commission Report and from the bill text generally. The big piece being worked on is a conceptual framework that will be shared with the group.

-Sen. Sherman/ Asks for reminder of Data Subcommittee membership

-Dr. Bush/ Responds: Dan Tzizik as Chair, Dr. Bush, Mindi Messmer, Nancy Murphy, Amy Costello.

-Dr. Bush/ Shares screen to show members the draft Conceptual Framework the Data Subcommittee is working on; informs "we are trying to create buckets to help organize our work as there are many, many charges"; thoughts/ discussions/ recommendations were relative to determining "appropriate bucket" categories; group welcomes feedback...

Buckets/ Categories:

1. "*Monitoring and Surveillance*": Some of the key work talked about in terms of identifying relevant programs, databases, and disease outcomes of interest; things the commission may want to track, determine what the data gaps are, and what exists to fill those gaps
2. "*Reporting*": A big part of the work of this commission is to understand data and information that already exist; think about how to improve reporting of things that may not currently be reported upon
3. "*Communicating*": A big bucket that has been included relative to the work of the entire commission; the Education Subcommittee will really be focusing on the "Communicating" section of this framework; discussed two and three way communication between agencies, the public, and the legislature; both sending info out, and also using that information internally within agencies or within government to guide programs and priorities; have highlighted the importance of working with healthcare providers; broad communication and some more targeted communication and outreach
4. "*Capacity Building*"- Where the different charges related to standing up systems like IT systems to allow for data interoperability can be seen; also standing up things like processes to guide the group's work or necessary policies

Also have these cross-cutting topics/ themes of our work around collaborating, and regularly communicating with all stakeholders...

5. "*Community Engagement Process*"- Subcommittee spent a lot of time discussing this bucket; see it as a gap in the work done to date and a priority going forward; how to create an effective, responsive community engagement process where current tools and protocols to engage communities are evaluated... where data, information and input from community members is then used to guide our work; all of that info will be used to revise protocols and communicate about risks and findings; this is a cross-cutting theme of the groups work that we're going to continue to focus on; this bucket touches upon all four other buckets

-Ms. Costello/ Wonders if the "Community Engagement Process" can be pasted across the top in this schematic to reflect the interactive community engagement process through all of these areas; putting it at the top would suggest that it is in-line with the philosophy that has come through the work of the Data Subcommittee and responds to the charge in the bill?

-Hon. Messmer/ Agrees that Amy's point is a good one. Current placement was d/t formatting challenges but concurs that "Community Engagement Process" should be at top.

-Ms. Costello/ Foundation (of the conceptual framework) is collaborating with federal, local and state partners and routinely monitoring communications; it's a minor formatting change but the spirit of it can be conveyed more by placing it at the top as opposed to a fifth bucket or at the bottom.

-Dr. Bush/ Important to note that the original buckets (where the parentheses are seen) reflect the actual charges of the bill. The "Community Engagement Processes" are a distillation of all those charges- our marching orders or action items. These are the things that, based upon all of the other buckets/bullets, that the subcommittee wants to focus on and that it hopes the Commission will take on as well- how we take all of those charges and what is it that we're now trying to create/develop; whether it's the over-arching goal or problem statement, agrees that this Community Engagement Process can be our guide.

-Hon. Murphy/ Agrees with Amy's suggestion as a great idea. Asked for clarification, more specifically, of who will be included as "concerned stakeholders" under the "Communicating" bucket where we list, "Getting information from concerned stakeholders."

-Dr. Bush/ Responds... These are just excerpts of original bill text; (shared screen to highlight and review this section) "Not sure" as to who is to be included... Thinks it probably varies depending upon the topic, exposures we are talking about, etc.; may be a multitude of stakeholders depending upon current topic.

-Dr. Bush/ Referred back to the annual commission report for another big topic of discussion; group has summarized some potential topics for future presentations or future testimony- determination to be made whether these are suited to the full commission or just the Data Subcommittee. Specific suggestions are:

- To invite DHHS representatives to present on their Enterprise Business Intelligence (EBI) System (which Amy can speak to as well)- the new data platform the agency is moving towards

-Ms. Costello/ Will not be the person to present herself but will coordinate to get the best presenter re: the Enterprise Business Intelligence System (EBI)

-Dr. Bush/ Referenced the Data Subcommittee's discussion re:

- Creating a Registry of Outcomes, perhaps taking a more targeted approach, thinking about specific registries;

- The Birth Defects Registry; it might be good to have a presentation from the Maternal Child Health section re: the Birth Defects Registry; this had been federally funded- funding that has now been cut though there is a grant application in process seeking to refund some of that work; would be helpful to hear about the work they've done in the past and maybe some of the work they hope to do in the future;

- A presentation from the Biomonitoring Program once the TRACE Study results are out;

- DES also has a state-wide well-water project. It has sampled something like over 500 wells. When those results are out, this too, would be a worthwhile presentation.

- Noted that the people listed in parentheses on commission report under section: "Suggestions for Future Presentations" are the liaisons, not necessarily the presenters.

- Requested feedback from the group re: Data Subcommittee's suggestions re: the conceptual framework submitted or the presentation suggestions

-Sen. Sherman/ Likes all topics for presentations as all pertain to different charges in the bill/statute. Questions if, as we get these presentations, the idea is that we would then think about how we would connect that information with "Chronic Disease" and "Environmentally Triggered Chronic Illness"? Are we getting these presentations with the notion, "How do we look at this from the unique framework of this commission"? Putting this in context... the DHHS Enterprise Business Intelligence (EBI) System and Biomonitoring TRACE Study- these are databases, is that correct? The Birth Defects Registry might be a database re: birth defects"... but on the flip side, we might also be thinking, "What is also happening in the areas where we're seeing these events from an environmental standpoint"? Getting back to our idea of superimposing chronic illness over, "What is the environment in

which this is occurring?" Asks if this perspective is correct and the point of the presentations.

-Ms. Costello/ Responds "Yes" to Sen. Sherman's question... Understanding the current plans for EBI; what the current state is; to be able to support the early detection of emerging conditions that may be environmentally triggered; also to understand any future plans so that as we're thinking about fillings gaps, which may require legislation or funding, we are not potentially duplicating efforts; to understand the intersection of how the EBI may be able to support the detection of health issues and whether there's any insight into potentially incorporating environmental data.

-Dr. Bush/ Agrees with Amy. When we look at this draft conceptual framework, part of our charge is to identify potential gaps- the presentations will help us see where they are and where they're going; we can try to advise or support those initiatives. Another charge is to improve interoperability of data systems and the EBI is how the health department is trying to move towards that interoperability. This helps us get a sense of the state of the science- we can determine where we are so that we can determine where we want to go- and so that we're going there in alignment. The two data presentations- from Biomonitoring and the DES well water project, are more to help us understand hazards. We know there's a large world of potential exposures and these two studies will help us identify what contaminants are out there in the water and also showing up in people. This may help us target our focus to certain exposures based on the data. Great transition point to have Mindi talk about the other big product of our Data Subcommittee's work which was the topic of our second meeting... An inventory of 'exposure outcome pairs' - environmental exposures and what outcomes they're linked to based upon scientific literature, where we may want to improve our tracking/surveillance/ monitoring.

Hon. Messmer/ (new screen is being shared for group review) One of the other important things the subcommittee talked about is, "What databases historically have already been set up and the structures there- maybe those that haven't been funded in the past few years?"; What are the low hanging pieces of fruit that we might be able to push forward again? We looked at the NIEHS table that was in our first report from the 511 Commission and realized that it's no longer available on the website. This is actually a good thing as it allows us to go back to the drawing board and look at what's really happening in NH or what we have as concerns in NH- this allows us to recreate it to be a NH specific table. This work began just last week. On the screen is the table from the 511 Commission Report and beside it is the table the Data Subcommittee has created to begin doing that. Referencing the (on-screen) table, pointed out that PFAS was not on the older NIEHS table but that it is a current, and big concern here in NH. Again referencing the table the Data Subcommittee is creating, shared that, "We are starting to build this ourselves and including such things as PFAS, radon, lead, MTBE and maybe even some vector borne diseases that we can start looking at." One of the pieces of low hanging fruit is the Birth Defects Registry. The subcommittee is concerned about the high rates

of pediatric cancer in NH and understand that low birthweights are also connected to prenatal PFAS exposure. The Birth Defects Registry presentation would allow us to hear what is there, what's already set up, and what we might be able to re-implement to start looking at the impacts of PFAS exposure in NH- and maybe other things related to low birth weight. This is just a quick overview as we've just begun setting up the structure. Any comments are welcome.

Sen. Sherman/ Mentions that his recall of the Data Subcommittee doesn't include anyone from DES. Said that we don't necessarily have to include people from the commission, as we can invite outside members. Asks Mr. Wimsatt if DES toxicologist or someone else might be part of the discussion as the info discussed is weighted heavily on the "health/ DHHS side". It might make sense for someone from DES be included as part of the Data Subcommittee to talk about the contaminant side.

Mr. Wimsatt/ Agrees that would be a great idea especially as "various DES databases could support the work that has just been described." Will talk internally at DES to determine who would be the best person to do that.

Dr. Bush/ Responds to Sen. Sherman's remarks that though she would welcome this, "I do work very closely with the toxicologist and several programs in DES so in the interest of peoples time, I do feel they are well-represented." "Actually, one idea I want to share, that I hadn't had the chance to share with the data subgroup yet is that DES has a long list of drinking water standards for example... and those standards identify different contaminants." The list of drinking water contaminants for which we have regulations is quite long. Suggests the subcommittee may want to compare that list with the list it is creating as it might help further develop it. States that NH has regulations of contaminants believed to pose a risk to human health. As this water contamination list was shared by DES with Dr. Bush, she believes this "shows communication happening in the background." "Mike, you can assess people's availability but I want everyone to be confident that those kind of conversations do happen internally."

Sen. Sherman/ Wonders if he "jumped the gun" making that suggestion. Should have checked with the committee first. Big believer in not asking for people to participate in meetings where it's not necessary. Sounds like Katie knows who to talk to in DES if additional help is needed. Wasn't sure if that was represented on the subcommittee but it sounds like it is.

Dr. Bush/ Helpful to know that a non-member could sit on the commission. If DES wants to have someone sit that's helpful to know.

Mr. Wimsatt/ Will circle up with Katie on this. It may be that someone like Jon Ali might participate on an occasional basis when his expertise is helpful. Will talk with Katie about this.

Sen. Sherman/ Perfect. Thank you. This is phenomenal work. Very sophisticated.

Asks Dr. Bush if she remembers during the 511 Commission, when he, she, and Mike Dumond from DHHS sat down and met with some individuals from Massachusetts. (continues before she answers...) Addresses, Mr. Wimsatt, and says "Mike, we'd talked about how DHHS was in the middle of a lot of work on their data systems." "Is that still an ongoing project or is that reflected in what you presented today?"

Dr. Bush/ That's really what Amy was speaking to earlier- this "EBI". The Enterprise Business Intelligence System is going to be the new home for much of DHHS data. Folks may remember presentations on our WISDOM data portal which is really where the public health data sit. Even that will now be migrated into this new platform. "What's more exciting especially for those of us who barely understand the infrastructure, is that now, not only will things be integrated on the front end for users to go in and see, but more importantly really for our purposes, is that on the back end, the data will now live on one system instead of multiple databases all over the place. EBI is both a place to house data and a place to pull that data from the different server spaces and push it out in a uniform fashion." That's why Dr. Bush thinks having an update on the status, and maybe even their needs- would be helpful to the group's work. Would like to "hear from folks- VIS?- blanking on the name but it's a new unit within DHHS that's guiding this work."

Sen. Sherman/ That would be awesome.

Dr. Bush/ That's all related to what is being talked about here. I think the question is, "Which of these outcomes and exposures that we are identifying that Mindi showed in the table should become those things that we track on a regular routine basis and report on a regular basis that would be in a dashboard in the future version of this? I think those are the questions we're grappling with and what's feasible to track in a meaningful way." "What can we track meaningfully that tells us something?"

Sen. Sherman/ Calls on Rep. Salloway to see if he had a question.

Rep. Salloway/ "No." "Anxiously waiting to share on the work of the Education Subcommittee as it's a perfect segway to Dr. Bush's report."

Sen. Sherman/ Has one last question on data. "Is the Cancer Registry part of EBI?"

Dr. Bush/ "It will be. The cancer data will be one of the data sets that sits within EBI." The Registry is a big entity with many staff at Dartmouth and here at the health department so when we talk about the Registry, "it's kind of this whole group. The registry data would be another key data set that would be hosted in EBI."

Sen. Sherman/ "What about being outside of DHHS? Are you able to incorporate data from say, insurance or corrections, as we've dreamed of in the past?"

Dr. Bush/ Amy will be able to speak to this a little bit more. One of the visions is that Medicaid sits within DHHS but separate from Public Health so at least this would be an ability to integrate Medicaid data and claims related to Medicaid which is a large proportion... You can maybe speak to other claims data, Amy- the allpayer/ larger claims data."

Ms. Costello/ "Deloitte was on contract to incorporate the commercial claims into EBI. Whether that becomes accessible to the public is a very good question for the presentation. Work has been done to incorporate that into the EBI and have it available to DHHS analysts."

Sen. Sherman/ Awesome.

Ms. Costello/ "Medicaid is in there as well. The Institute pulls Medicaid data from the EBI directly."

Sen. Sherman/ Notes Margaret DiTulio's raised hand and calls on her to speak.

Ms. DiTulio/ "That's a wonderful table that you all put together. Is it a 'fixed' or 'dynamic'" table? Recently I've had some literature go past me that suggested associations between arsenic and diabetes for example. How would I go about sharing that literature and maybe have that information integrated into that document or is it fixed now?"

Hon. Messmer/ We are struggling with that right now and trying to get it so that it is available to all subcommittee members as a dynamic document- having some technical issues with people being able to access it. We are working on that. For now, you can send anything you want us to see as that would be helpful.

Ms. Costello/ Some of the conversations within the Data Subcommittee were pointing to the fact that this could become a living document so that as new contaminants or new conditions were identified, this table could become the singular resource so that we aren't dependent on an NIEHS table being updated and available online- something that could be carried forward in perpetuity for whatever the SB85 Commission looks like in its future iterations.

Sen. Sherman/ "I think Rep. Salloway had shared an additional concern. Correct me if I'm wrong, Jeff, but the combustion of natural gas in the home and the connection with asthma. I think the point that Margaret and Jeff are making is that this needs to be a living document and one that is dynamic, flexible, and responds to new data. I'm not sure if that is something that would take legislation or could be incorporated within EBI or one of Katie's databases or the MOU between DES and DHHS." Something to think about... Asks if there are more questions for the Data Subcommittee. Saw Mr. Wimsatt raise his hand and called on him to speak.

Mr. Wimsatt/ Doesn't have a question but regrets that he has to step away from the meeting in a moment so wants "to answer an unrelated question that came up during the last meeting about DES's filter-pitcher project for arsenic. There was a

question as to whether we understood those filters to also treat for lead contamination in water. Looked into that with staff and the answer is "yes." The name of the filter pitchers DES is using are called "ZeroWater." Their website suggests that there is a whole host of metals that those filters treat very effectively and lead is one of those." Wanted to provide this info as he'd promised to follow up on it at last meeting. Apologizes for having to leave meeting early.

Sen. Sherman/ Thanked Mr. Wimsatt. Noted Rep. Woods' raised hand and called on him to speak.

Mr. Wimsatt/ Leaves meeting @ 41:48.

Rep. Woods/ Has a question about "living document." Seeks clarification as to what that might mean. "Is the intent for an open database?" Expressed concern that if it's too "open," the risk of too many people potentially adding to it might contaminate the whole database. Concerned as "some areas might be emotionally charged" increasing the likelihood that this could happen.

Sen. Sherman/ Acknowledges Rep. Woods' concerns as valid and his awareness that Rep. Woods has seen this happen elsewhere.

Rep. Woods/ Agrees.

Sen. Sherman/ Acknowledges that Rep. Woods brings a unique perspective and that he makes a great point. "I didn't mean 'living' like anybody could put data in but that this would be managed and include science-based data under the careful, watchful eye of somebody like Dr. Kathleen Bush or somebody like that, or the Data Subcommittee- it could be their baby to keep this- at least until we understand the best use, management, and maintenance of it. I would hope it wouldn't need any statutory support. It is probably something that could be part of that MOU between DES and DHHS." It would be a slick way to have it managed by the experts rather than by just anybody." Shares Rep. Woods' concern. Asks Rep. Woods if he has a follow-up question or if others do.

Rep. Woods/ "No. Really likes the outline presented- it's very cogent." Doesn't recall having seen the Data Subcommittee table and wonders if it can be shared with all members.

Hon. Messmer/ Seeks clarification as to which table Rep. Woods is asking for- the NIEHS or Data Subcommittee version.

Dr. Bush/ Suggests that she believes Rep. Woods is referencing the Data Subcommittee version.

Rep. Woods/ Agrees.

Dr. Bush/ "I think we'll work to get a more complete version as the one we have is very rough right now." Clarifies that what was meant earlier (referencing a live/dynamic/open document) was that Data Subcommittee is still taking

suggestions for the table- such as Margaret's suggestion, etc. "We don't plan to make it public at this point." We can share a version...what we have probably is a draft- if people just want to have it and refer to it. "Maybe Mindi could share it. We definitely plan to flush it out. We really have only focused on PFAS and some of the known things like radon and arsenic."

Sen. Sherman/ Reminds Dr. Bush "this is a public meeting."

Dr. Bush/ (Begins to interject but as Sen. Sherman is speaking at the same time unclear what she says)

Sherman/ States he understands that Dr. Bush meant that the Data Subcommittee didn't want to make a formal, final report and that this is a work in progress.

Dr. Bush/ Nods in agreement. States: "But not a citizen-science data collection tool."

Sen. Sherman/ "Correct. Exactly."

Dr. Bush/ Remarks that there are columns in the table to include the citations of the associations that we are naming.

Sen. Sherman/ "Right. OK. Anything else?" Acknowledges Rep. Bill Nelson's request to speak.

Rep. Nelson/ Is "concerned if there is any data collected re: special education from the Special Education Department at the Department of Ed to see if there could be a cluster of people with autism or some other condition that might be in certain part of the state- a higher percentage."

Sen. Sherman/ "Great question."

Hon. Messmer/ Confirms that this subject was discussed and was one of the presentations that, though it doesn't appear on the current list, was sought as the Data Subcommittee is concerned about this issue- an issue that will be reflected in the table that is being created.

Sen. Sherman/ Confirms with Hon. Messmer that this education presentation will be included within the list Dr. Bush had.

Hon. Messmer/ Yes. It should be.

Sen. Sherman/ Thanks Hon. Messmer and states, "Great thought there Bill (Rep. Nelson)." Asks if there is anything else from the Date Subcommittee? Hearing nothing, moves on and recognizes Rep. Nelson's great Segway into Education. Calls on Rep. Salloway to report on the work of the Education Subcommittee (Rep. Salloway is Chair).

Rep. Salloway/ States he's having difficulty controlling his "excitement at the work that the Commission is doing and the fit between the Data Subcommittee and the Education Subcommittee. The Education Subcommittee is simply perfect. It leads

him as Chair to a place he'd not anticipated but members of the subcommittee drove things in that direction." The subcommittee met on 11/17/20. There is a report from that subcommittee meeting that is not yet final- it has to go back to one more meeting of the subcommittee. He'd actually thought of posting it for this meeting but as it's not yet a final document it probably should not yet be made public until it has passed through the subcommittee one more time. Apologized. A couple of brief notes... "The Education Subcommittee indicated that there are two major dimensions to mitigating risk through education. One of which is the public health dimension and the other is the clinical dimension." The question is, "How do you get data on risk from sources of hard information into the hands of clinicians?" "We're building this on a deductive logic. We go to the literature, find out what risks are reported, and the subcommittee worked hard to specify that environmental risks vary by region of the state. We thought it would be extremely useful to enlist the aid of local public health officers as well as DHHS and DES." He "had in (his) mind, these two dimensions which were a deductive logic coming from DHHS and DES i.e. let's look at the literature, let's find out what the risks are, of arsenic, of PFAS, etc., and then let's take that to our public health officers regionally in the state, find out if they are seeing these risks and pass that information through the hospitals and the professional associations to the clinicians." "It's all built around a deductive logic. However, the subcommittee observed that while a deductive logic is pretty standard for implementing public policy, we need to be alert to an inductive logic. For this I will hold responsible Dr. Tom Sherman and Mindi Messmer." Said "Dr. Tom Sherman, not Senator, quite deliberately." Going back 2-3 years, Dr. Sherman appeared before Health and Human Services and mentioned in his testimony a higher incidence of biliary carcinoma in his clinical region. Dr. Sherman, as a gastroenterologist, testified that he was observing, within his practice, a higher rate of biliary carcinoma. In the same fashion, the Honorable Mindi Messmer had noted sometime earlier, the prevalence of rhabdomyosarcoma (RMS) and other childhood carcinomas in the seacoast area- from this, inductively developed an approach to PFAS contamination on the seacoast. "These are inductive logics where we take data that we see and attempt to build up in search of a cause. The subcommittee noted that this was a remarkable opportunity to build a clinically based registry of complaints. This fits exactly with what Dr. Bush has just reported from the Data Subcommittee. It is laid out for us with Rep. Woods' caveat that you have to be careful what data you put into that inductive database- we have to have some controls over it. Before the subcommittee currently, is a paragraph that suggests that we recommend the creation of a registry based on clinician's observations, on a region by region basis. Think of it as a canary in the coal mine. Think of it as Hon. Messmer's observations, Dr. Sherman's observations, that these are clinically relevant findings that ought to be aggregated in a registry. Rather than waiting for a definitive study to come out" (of a medical journal of some sort), "we can build our own database from what our clinicians are seeing. I think it's an extremely powerful suggestion." Had not anticipated this coming out of the subcommittee but believes it "necessary for us to examine it as a possibility and

to put it in the hands of state government and say we need to collect this data and from this attempt to build some sense of what risks are out there but have not yet been identified.”

Hon. Messmer/ Adds that one of the columns in the table the Data Subcommittee is creating is “Clinical Assessment Tool” and where those data may lie in our system- that’s our attempt to do exactly what Rep. Salloway is talking about- connect those clinician reports with what we’re concerned about in NH. That may be a living document that is added to as clinicians feed into it with additional information within the data table.

Rep. Salloway/ As Ms. DiTulio pointed out, this has to be a dynamic document that changes moment by moment as you get reports in from clinicians.

Sen. Sherman/ Thanks Rep. Salloway. Asks if any other members of Education Subcommittee want to chime in. Notes Nancy Murphy’s hand is raised and calls on her.

Hon. Murphy/ Shares that at one of our meetings it was mentioned that public health officers were thought to be very attentive to the health risks being discussed. Made a phone call to Merrimack’s health officer- Erin, to learn more about how that is working/ would work for Merrimack. Based upon info obtained during that call, and knowledge of the history of correspondence/ communications relative to the PFAS contamination issue in Merrimack over the past nearly 5 years, has questions whether or not a conclusion can be drawn state-wide, about the role of public health officers. Seems there may be differences across the state and between communities. Concerned about Merrimack’s public health officer being put in the role as the person this community would rely upon to be attentive to the risks here for Merrimack residents. Asked Merrimack’s public health officer (Erin) to share some information re: the role of the public health officer in this area as compared to other areas. Erin states that “many public health officers are volunteers, and she was part time in Merrimack until July (2020).” Said that seventeen public health officers are “self-inspecting.” Was told that “a lot of her work is tied up with COVID-19 compliance checks, inspections of pools and daycares, and providing educational materials.” Asked where she gets her information- Erin shared that she gets a lot of it from Saint Gobain- a known PFAS polluter. Also shared that Golder sends her emails. Given the experience of this community, and the ongoing impact of PFAS here, this could be very concerning to citizens. Merrimack’s public health officer shared that when she gets information she saves it in files based upon location. When asked how comfortable she’d be being a resource to clinicians re: health impacts that we have here, she’d replied that with proper training etc., she’d probably feel better. Did not get the sense that under current circumstances, this public health officer felt competent to be the person to be relied upon re: acting as the resource for providers re: public health issues/ findings, etc. Her personal prior knowledge of the public health officer role within the community has led her to believe this as well. Suggests that prior to

expecting or feeling confident that local public health officers serve in the aforementioned role related to the commissions work, an assessment be made of the situation as it currently exists in NH- across the state, so that changes can be implemented to better prepare public health officers if we are to rely upon them as a resource for providers.

Rep. Salloway/ Agrees that at this moment statewide, "the core of local public health officers is undeveloped and weak." "There is House legislation filed, and that will be heard this session, to organize public health officers and create a much more professional core of public health officers." Asks Hon. Murphy in her professional and political work, if she'd "support the development of a core of public health officers that would be really competent to do this type of work."

Hon. Murphy/ "Absolutely." "What a great local resource that would be. As we're not there yet would be happy to see that happen."

Sen. Sherman/ Seeks confirmation from Rep. Salloway that he (himself) is cosponsor of that legislation.

Rep. Salloway/ Concurs that they both are. Believes Hon. Murphy "is saying that this could be a conduit for dissemination of information though probably not yet ready to be the only one."

Hon. Murphy/ "Absolutely."

Sen. Sherman/ Not sure if the Education Subcommittee got into developing ties with the organizations and associations (Medical Society, Hospital Association, subspecialty societies) that do this with their members- especially primary care. Asked if this was discussed at all in the subcommittee?

Rep. Salloway/ "To quote Rep. Woods, 'The devil is in the details.'" The general consensus for the final paragraph of our report is that we ought to be developing a means of registry from clinicians, but the details are not there. Confident that Rep. Woods can be relied upon to help develop that.

Sen. Sherman/ Shares Rep. Salloway's confidence. Calls on Ms. DiTulio.

Ms. DiTulio/ Her thoughts on the clinical role are in an area where there is scarce resources and as Hon. Murphy said, an underdeveloped public health service. "We have an enormous number of clinicians in the state that are passionate about the health of their community members." They don't have excess time on their hands. Sen. Sherman can speak to physician education. In nursing/ nurse practitioner education there is mention of environment and encouragement to ask about that, "but once people get into practice, it seems to fall by the wayside unless a clinician has a special interest in the environment" like she does. Those environment related questions just don't get asked. We have an army of clinicians. We need to first "increase their awareness that this is an important area for them to understand as it is impacting the health of their client population." Also we may need to "do

something with associations that we already know are factual” such as the high association between arsenic and bladder cancer- and then translate that into what we know about the statistics in NH. There are things that we know and could share. If we had some members of the commission who would go to the various conferences, all these groups that were mentioned (Medical Society, Medical Associations, NP’s, naturopaths, PA’s, etc.), to get a platform to speak, this is a no-cost way to share information in an already existing platform.

Rep. Salloway/ Agrees.

Ms. DiTulio/ The only question is, “What would be appropriate to share?” Those systems are already in place- some of them virtual right now. She has participated in three related to the NP/environmental organization she’s in. It’s not difficult to put that in place. “We don’t want to miss the opportunity to engage the folks that are in the trenches who can then become involved and aware.” Believes this is doable and she’d be glad to be involved at any point in the future.

Sen. Sherman/ “That is awesome feedback!” Said he wouldn’t stop at the nurse practitioner level. Shared that he’s been working with the Senior Support Team which he cofounded and now Chair’s. This is a group that now volunteers to go into all of the nursing homes virtually- from remote access. Said that the group is in 62 facilities across the state right now with about 70 volunteers. By far, the vast majority of volunteers are nurses and their level of engagement is outstanding. Their ability to impart information to the senior residential facilities is unparalleled. The group works along with DHHS to support nursing homes. The reason he mentioned this is that it reminded him of something about communication and education. “The easiest way to get a physician or nurse to pay attention is to provide free CME’s or CEU’s. Maybe we have the expertise here” to develop those- using the data that the Data Subcommittee brings up, refined through DHHS and DES. “This could be turned into an educational presentation that can garner CME’s/CEU’s” using the current technology of video and Zoom, etc. “We could possibly create something that we can disseminate that has that kind of credit attached to it.” This addresses something Mindi and I have worked on since at least 2105- getting the word out to physicians about PFAS and clinical applications. I know Nancy’s been working on it too. It’s not just PFAS. “The clinical implications of environment in the practice of medicine- whether you’re a nurse/MD/ any level are real, practical, and can be taught.” Shared that when he was in med school students didn’t get any environmental medicine training. None. And there was nothing about prevention either. Now, being a conduit, would like to kick this back to the subcommittee to think about- “How do we develop programs, and who would be partners in doing that?” Thinks we have enough information when one considers lead, radon, arsenic, PFAS; and many others such as in GI- manganese, etc. All these have short and long term clinical implications that our Education Subcommittee could dream of ways to disseminate. The hook is ongoing CME/CEU requirements. Calls on Ms. Costello who has a question.

Ms. Costello/ Asks Rep. Salloway if environmental health is being included in the nursing program- before nurses hit the field

Rep. Salloway/ (signals thumbs down). "No."

Ms. Costello/ Wonders if this is another opportunity as well.

Rep. Salloway/ Great point.

Ms. Costello/ Thinking also about "Project Echo" that is expanding through the US. Just emailed Marcy to see if CEU's are offered through the Echo trainings. That might be another quick win.

Sen. Sherman/ Asks Ms. Costello to share some more info about Project Echo as he is unfamiliar.

Ms. Costello/ Thinks of it as "just-in-time training" for emerging issues. Provides web-based training for emerging issues like COVID in nursing homes and being able to pull together a couple of experts and case studies to put together, in short order, quick training on how to manage that particular situation. She will get more intelligent information about Project Echo to Rep. Salloway and the rest of this group. That's the gist of it- not a lot of ramp up time. There's a dire need and it's been shown to be really effective. It's out of University of New Mexico.

Rep. Salloway/ One of the hubs for Project Echo is UNH.

Ms. Costello/ Agrees. They work together with other Project Echo's so there are some that are out of Dartmouth. Understands that it's highly collaborative so if a Project Echo in New Mexico is offering MAT (medication assistance training), they'll share those modules throughout. The Project Echo through the Institute has done a whole array of different types of ECHO's and this could be one of them. As Margaret and others were saying, public health officers, nurses, doctors, etc. are very much focused on one thing right now, but when the timing is better, perhaps an environmental ECHO or CEU's would be a great opportunity. It's important to find out what's being offered at UNH and other nursing schools in NH as far as environmental health.

Sen. Sherman/ Great. Asks if there are any other comments from Education Subcommittee members.

Hon. Murphy/ "Delighted that we are at a place when education of health providers is becoming a focus." Stated that it had been suggested that the intent of HB1538 that she submitted last session, (a health provider environmental education bill), be included within one of the related commissions. A lot of work had been done on this bill. She and Rep. Woods had met with Mike and Jim at NH Medical Society, DHHS, etc. Resources seemed to be the challenge in getting CME's out to providers. Even if we were only able to get this environment/health info into impacted areas at first, that would be great. Thought it was great that Margaret had shared at our last meeting that having been informed by her involvement in the commission's work, it

changed her practice and the questions that she asks. These simple questions give her so much information and allow her to delve deeper into her patient's medical history. We have such a great opportunity here. Shared that the first time she met Sen. Sherman was at a NH Medical Society meeting five years ago. She attended along with the other members of Testing for Pease and Merrimack Citizens for Clean Water and discussion was that "community members were more informed than health providers" re: PFAS and the contamination of their communities. Thinks that "this is changing a little bit but not enough." Is grateful that "we are at the place where we're looking at avenues to make that happen." Wants to find out more about Project Echo. We now have some great opportunities. So delighted with what Margaret had shared at the last meeting- when she talked about asking simple questions that people have no idea why she is asking- like what they do in their basement, and how much information that gives her.

Rep. Salloway/ Agrees.

Sen. Sherman/ Thinking "as Nancy was sharing this how exciting an evolution of health care it would be if as part of a review of systems you did an environmental review as well."

Ms. DiTulio and Hon. Murphy/ nodding in agreement

Sen. Sherman/ Asks about well water because of coliforms and diarrhea. Doesn't ask about well water because of arsenic, lead, or others but probably should be asking- even though he is not a primary care provider. Thinks this is an exciting revolution and we can have a role in bringing this forward. Encouraged the group to think about partners we might find in university systems whether UNH or Dartmouth for developing some of this programming coming out of the Education Subcommittee. Suggests to Rep. Salloway that the sky's the limit when one thinks about how best to disseminate this. Can we develop a CME/CEU or both based program...

Rep. Salloway/ interjects... "Yes, Low cost."

Sen. Sherman/ "Yes. Low cost, low budget. Those are the places where they can develop those programs and also attach the appropriate credits to them. This is a huge step for this commission." Asked for comments or questions for or from the Education Subcommittee. Hearing none, commented that both subcommittees are doing phenomenal work. Had no objection to ending a little early. Wanted to make sure we have a path forward. Encouraged the subcommittees to continue to meet to continue their great work. Would like full committee to continue to meet monthly to maintain momentum. Spoke of Dr. Bush's report that will involve several presentations. Asked if Dr. Bush could bring up the slide related to suggestions for future presentations.

Ms. Costello/ Asks if we have the dates for January and February meetings.

Sen. Sherman/ No. The problem is that we're getting into the legislative session. The plan is to go back-preferentially, to Fridays if that works for people. Meetings will continue on Zoom. He is least available on Mondays. Asked Rep's if they have any idea of what their committee schedule might be.

Rep. Salloway/ Historically Tues/Wednesdays for committee work and full House on Thursday. Thinks Friday suggestion for commission meetings makes sense.

Sen. Sherman/ Asks if group is generally available on Friday mornings. Consensus is yes. Has an ongoing commitment to the SHASHIP Commission (3rd of 4th Friday/month) unless the House effort to repeal that commission- which would be a disaster, goes through- just a little political commentary here. Asks that any Rep on the call make every effort not to let a bill move forward that would repeal the State Health Assessment State Health Improvement Plan Advisory Council as it is one of the most critical public health efforts being made in the state and it dovetails with what we are doing here. Notes that it's critical- and pretty much a requirement. Asks if members are available on the 2nd Friday of each month. Consideration is given to meeting on January 8th...

Hon. Murphy/ Asks Rep. Woods if he is aware of which Fridays the HB737 PFAS Commission will be meeting.

Rep. Woods/ Is not aware.

Sen. Sherman/ Determines that the SHASHIP Commission is meeting on January 15th. Says January 22nd is available.

Ms. Costello/ Thinking that a presentation could possibly be scheduled on the 8th or 22nd with Chiahui Chawla (Bureau Chief, Statistics and Informatics Div., DPHS) or David Wieters (Director, Information Services, DHHS).

Sen. Sherman/ Asks if plan should be for a couple of presentations per meeting or just one and leave time for discussions.

Dr. Bush/ Not sure who can coordinate with Department of Education so thinking that the two presentations on the table are re: the EBI system and the Birth Defects Registry. Hasn't yet connected with the Birth Defects folks- they're working hard on their grant renewal right now but she can keep us posted.

Sen. Sherman/ Asks the group if the plan is for subcommittee meetings before the 22nd.

Rep. Salloway/Yes.

Sen. Sherman/ Asks if the group wants to meet on January 22nd and the agenda would be an EBI presentation, discussion, and subcommittee updates. Asks Ms. Costello if she thinks that's reasonable.

Ms. Costello/ Thinks the presentation may be canned so may be able to have presentation sooner.

Sen. Sherman/ Would like to have confirmation within 48 hours for planning purposes.

Ms. Costello/ Writing an email to get confirmation.

Dr. Bush/ requests that Ms. Costello cc her for internal protocol. (Ms. Costello affirms)

Sen. Sherman/ Asks if this is agreeable to everybody.

Rep. Salloway/ Yes. Date is now on his calendar.

Sen. Sherman/ Confirms: January 8th or 22nd to be confirmed within 48 hours as best we can. Wants to make sure we have adequate public notice time. Asks Allan Raff if 2 week public notice is required.

Allan Raff / One week notice will be satisfactory. We must talk with the new Majority to see what their plan is for meetings to avoid conflicts on those dates.

Sen. Sherman/ If an open window of 9-12 is left on 1/8/21 or 1/22/21, the meeting would be either 9-11 or 10-12. Asks if that's OK with the group.

Rep. Salloway/ Yes.

Sen. Sherman/ Will coordinate with Allan for that next meeting after hearing back from Ms. Costello and Dr. Bush.

Ms. Costello/ Will copy Sen. Sherman on her email.

Sen. Sherman/ Thanks Ms. Costello.

Reviews Action Items:

- Subcommittees continuing to do their phenomenal work

- Semi-assignment for the Education Subcommittee to think about taking some of the things we now know and developing an environmental curriculum for CME/CEU credit. Maybe thinking about partners... Ms. Costello and others who might have ties with universities, maybe thinking about who we could use as a resource.

- Set up another presentation for the next meeting

- Reconvene in January

-Asks if there's any further discussion. Seeing none, asks Allan Raff if there is a need for a roll call to close the meeting.

Allan Raff/ Confirms that a roll call is required.

Rep. Salloway/ Motion to Adjourn.

Rep. Nelson/ Seconds Rep. Salloway's Motion to Adjourn.

Sen Sherman/ Calls the roll: 10 yea/0 nay

Rep. Jeffrey Salloway- yes
Rep. Gary Woods- yes
Rep. Bill Nelson- yes
Rep. Charles McMahon- yes
Sen. Tom Sherman- yes
Katie Bush- yes
Amy Costello- yes
Margaret DiTulio- yes
Hon. Mindi Messmer- yes
Hon. Nancy Murphy- yes

-Thanks members for the incredible work and wonderful discussion. Thinks the commission is making incredible progress, "it's thrilling to watch", and we have a bright future together.

Rep. Woods/ It's "very heartening to see the coalescence of data." Harkens back to the Blue Ribbon Commission he served on under Gov. Judd Gregg. Out of that, the commission came up with two points that needed to be satisfied. "One was the improvement of data and collection of data from all the resources which were fragmented." Is finally seeing it happen...from Judd Gregg's commission to now, it's finally taking place.

Rep. Salloway/ That was 30 years ago.

Rep. Woods/ Right.

Sen. Sherman/ "The wheels move slowly but they do move"... Goodbye everybody!
Meeting closed at 11:28:35

Notes respectfully submitted and emailed to all members 1/13/21,

Nancy Murphy