

## **Climate Change Response and Health Care-Related Needs in Vermont**

*Developing direct action that can help Vermont be prepared for climate change public health concerns*

### **Context**

Currently Vermont has a State Emergency Management Plan and a Hazard Mitigation Plan. In addition, many towns have adopted Local Emergency Management Plans and Local Hazard Mitigation Plans. All of these plans address risks and vulnerabilities the citizens of Vermont are exposed to and make the state more resilient for future natural hazards, which are expected to increase with climate change.<sup>i</sup> These plans do not tend to focus on the public health issues associated with the hazards, even though climate change is expected to impact human health in many different ways. For example, the 2018 Vermont State Hazard Mitigation Plan uses the word “health” only 16 times in its 159 pages.<sup>ii</sup> Some health issues relate to the fact that in the past fifty years, Vermont has seen an increase of two degrees Fahrenheit in the summers and four degrees Fahrenheit in the winters due to climate change.<sup>iii</sup> These issues include respiratory problems from longer pollen allergy seasons,<sup>iv</sup> an increase in vector-borne diseases due to a lengthening of the season for mosquitos and ticks,<sup>v</sup> and habitual changes for Vermont residents who are not accustomed to the higher temperatures.<sup>vi</sup> In addition, the Vermont Department of Health notes that in the past fifty years, the annual precipitation in Vermont has increased by almost 7 inches.<sup>vii</sup> More precipitation can be harmful for vegetation and can cause municipal sewers to overflow, which results in an overload of coliform bacteria that can make people sick.<sup>viii</sup> Also, extreme storm events can cause injury, water contamination, mold growth, respiratory health issues, and long-term mental health impacts.<sup>ix</sup> The current State Hazard Mitigation Plans does not place enough emphasis on the public health impacts of climate change impacts, however S.185 addresses this.

Currently the entire world is battling Coronavirus (COVID-19). This infectious disease demonstrates the need for inserting public health standards into a plan. Though it is too early to conclude a correlation, there may be a relationship between climate change and COVID-19. In fact, a recent study is in review that demonstrates a “clear link between long-term exposure to pollution and Covid-19 death rates”.<sup>x</sup> A public health risk like this can have a significant impact on so many people and parts of life. COVID-19 has raised the nation’s unemployment rate at an unprecedented speed and scale<sup>xi</sup>, and has caused thousands of deaths across the country, with both numbers rapidly rising daily.<sup>xii</sup> There is no better time than the present to support a policy that focuses on the need for public health to be better addressed in climate change response plans.

### **Policy Recommendation**

Draft No. 4.1 of S.185, in the Senate Committee on Health and Welfare in early April 2020, states that the Department of Health and Chief Prevention Officer need to work together to “develop and adopt a statewide climate change response plan to foster resilience to the impacts of climate change in Vermont”.<sup>xiii</sup> This bill focuses on preventing and mitigating public health risks caused by climate change with a specific attention to vulnerable populations. As S.185 states at this writing (April 2020), multiple stakeholders will develop a climate change response plan using a public health model.<sup>xiv</sup>

Although not stated in the current version of S.185, this climate change response plan should be incorporated into the State Hazard Mitigation Plan to ensure the state is aware of and prepared for the public health risks of hazards. Because the State Hazard Mitigation Plan is subject to review and revision every five years, the climate change response plan would be reviewed on a regular basis. These actions will help the state understand how to better handle public health issues that may occur in the future.

Due to the substantial impact COVID-19 has made on the world, I recommend there also be a reevaluation of the risk of infectious disease outbreak in all current emergency management and hazard mitigation plans. In the 2018 Vermont State Hazard Mitigation Plan, infectious disease outbreak is seen as the hazard with the second lowest impact on the state.<sup>ii</sup> The plan states, “Given the Steering Committee’s lower ranking of infectious disease outbreak in the hazard assessment, there are no actions in this plan that specifically address the hazard”.<sup>ii</sup> After the COVID-19 outbreak, mitigation strategies should be identified to respond to an infectious disease outbreak like this in the future based on the state, nation, and world’s experience with COVID-19. It is unknown if the virus is a direct result of climate change, but it has exposed a critical gap in current Vermont hazard plans.

### Implementation Challenges

A substantial challenge of S.185 is that it requires additional work for multiple stakeholders to create plans of action that relate more fully to public health risks. Even though it may require additional time and resources to develop such plans, the plans would be instrumental in the long run as Vermont will be better prepared for disasters. If we do not act, the health issues could worsen and impact more people throughout the state, as we have seen with COVID-19.

It is also important to recognize that it will be best to wait to add infectious disease sections to mitigation plans until after we have fully experienced the impacts of the current COVID-19 outbreak. It is important to wait until COVID-19 is completely eliminated so the most knowledgeable people on this issue will no longer be preoccupied with handling the virus in the moment and will also have a fuller understanding of how to more effectively mitigate a disease like this in the future.

### References

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- <sup>iii</sup> Vermont Department of Health. (2020). *Climate Change in Vermont*. Climate & Health. <https://www.healthvermont.gov/health-environment/climate-health/climate-change>
- <sup>iv</sup> Centers for Disease Control and Prevention & American Public Health Association. (n.d.) *Climate Change Decreases the Quality of the Air We Breathe*. Climate Effect on Health. [https://www.cdc.gov/climateandhealth/pubs/AIR-QUALITY-Final\\_508.pdf](https://www.cdc.gov/climateandhealth/pubs/AIR-QUALITY-Final_508.pdf)
- <sup>v</sup> State of Vermont. (2020) *Climate Change in Vermont*. Vermont Official State Website. <https://climatechange.vermont.gov/our-changing-climate/what-it-means/health>.
- <sup>vi</sup> Vatovec, C., Malgeri, M. (2020, February 11). Climate Change: A 21<sup>st</sup> Century Health Crisis. *Community Engagement*. The University of Vermont Larner College of Medicine, Burlington, VT.
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- <sup>viii</sup> Friedman, L. (2020, April 7). New Research Links Air Pollution to Higher Coronavirus Death Rates. *The New York Times*. [https://www.nytimes.com/2020/04/07/climate/air-pollution-coronavirus-covid.html?campaign\\_id=54&emc=edit\\_clim\\_20200408&instance\\_id=17477&nl=climate-fwd%3A&regi\\_id=91044763&segment\\_id=24329&te=1&user\\_id=e1ec1dc3a953e7b9b746e721d2470270](https://www.nytimes.com/2020/04/07/climate/air-pollution-coronavirus-covid.html?campaign_id=54&emc=edit_clim_20200408&instance_id=17477&nl=climate-fwd%3A&regi_id=91044763&segment_id=24329&te=1&user_id=e1ec1dc3a953e7b9b746e721d2470270).
- <sup>ix</sup> Casselman, B. & Cohen, P. (2020, April 2). A Widening Toll on Jobs: ‘This Thing Is Going to Come for Us All’. *The New York Times*. <https://www.nytimes.com/2020/04/02/business/economy/coronavirus-unemployment-claims.html?action=click&module=RelatedLinks&pgtype=Article>.
- <sup>x</sup> The New York Times (2020, April 2). Coronavirus in Vermont: Map and Case Count. *The New York Times*. <https://www.nytimes.com/interactive/2020/us/vermont-coronavirus-cases.html>.
- <sup>xi</sup> S.185, 2019-2020 Senate, 2019-2020 Reg. Sess. (V.T. 2020).