Testimony of Ethan Lindenberger Student at Norwalk High school Before the Senate Health, Education, Labor, and Pensions Committee March 5th, 2019

Thank you Chairman Alexander, Senator Murray, and distinguished committee members for the opportunity to speak today.

Good morning, everyone. My name is Ethan Lindenberger and I am a senior at Norwalk High School. My mother is an anti-vaccine advocate that believes vaccines cause autism, brain damage, and do not benefit the health and safety of society despite the fact such opinions have been debunked numerous times by the scientific community. I went my entire life without vaccinations against diseases such as measles, chicken pox, or even polio. However, in December of 2018, I began catching up on my missed immunizations despite my mother's disapproval, eventually leading to an international story centered around my decisions and public disagreement with my mother's views.

To understand why I am here and how I have come to this point, I first must share some details about my upbringing and household. I grew up understanding that my mother believed vaccines are dangerous, as she would speak openly about her views both online and in person. These beliefs were met with strong criticism, and over the course of my life seeds of doubt were planted and questions arose because of the backlash my mother received when sharing her views on vaccines.

These questions and doubts were minor and never led to a serious realization of how misinformed my mother was. As these thoughts grew, I continued to attend high school and remained undecided in my opinion of vaccinations for many years. At my high school, I ran a debate club and learned about the importance of finding credible information both through my own pursuits in leading this club and through the fantastic teachers at Norwalk.

This is important to understand, as learning to find credible research and information is fundamental to finding truth in a world of misleading facts and false views. Through leading my debate club, I saw there are almost universally two or more sides to every discussion. To every claim there is a counterclaim, and to every statement there was always a rebuttal. Though this may seem to be true in all instances, the scientific studies and evidence that analyze the benefits and risk of vaccinations are separate from this truth. In its essence, there is no debate. Vaccinations are proven to be a medical miracle, stopping the spread of numerous diseases and therefore saving countless lives.

I remember speaking with my mother about vaccines, and at one point in our discussion she claimed a link exist between vaccines and autism. In response, I presented evidence from the CDC which claimed directly in large bold letters, "There is no link between vaccines and autism."

Within the same article from the CDC on their official website, extensive evidence and studies from the institute of medicine (IOM) were cited. Most would assume when confronted with such strong proof, there would be serious consideration that your views are incorrect. This was not the case for my mother, as her only response was, "that's what they want you to think."

This is only one example amongst a myriad of conversations where such evidence was disregarded and ignored. And this response is representative of the entire discussion around vaccines, where one side is based in scientific evidence and truth while the other is based in skepticism and falsities.

Conversations like these were what reaffirmed the evidence in defense of vaccinations and proved to me, at least on an anecdotal level, that anti-vaccine beliefs are deeply rooted in misinformation. Despite this, a necessary clarification must be made when discussing this misinformation: anti-vaccine individuals do not root their opinions in malice, but rather a true concern for themselves and other people. Although it may not seem to be true because of the serious implications of choosing not to vaccinate, the entire anti-vaccine movement has gained so much traction because of this fear and concern that vaccines are dangerous.

According to a study analyzing the views and beliefs of the dangers imposed by vaccinations by the Pew research center on February 5th, 2017, "About half (52%) of parents with children ages 0 to 4 say the risk of side effects is low, while 43% say it is medium or high. By contrast, seven-in-ten adults with no minor-age children (70%) rate the risk of side effects from the [MMR] vaccine as low." That means that nearly 20% of Americans which previously believed vaccines posed a low risk for children of a young age begin to raise concerns once they have a child. Such is the case for my mother.

This does not justify spreading misinformation, and I carried this knowledge with me as I pursued vaccinations without my mother's approval. Her beliefs were not true, and propagating these lies is dangerous. However, it is not necessarily ill-natured. This was the foundation for the respectful disagreement between us as I publicly expressed concerns for her misinformed beliefs.

I speak here today to first express this concept, that anti-vaccine parents and individuals are in no way evil. With that said, I will state that certain individuals and organizations which spread misinformation and instill fear into the public for their own gain selfishly put countless people at risk. If one agrees that vaccines are safe and substantially benefit the health and safety of the public, you'd see the anti-vaccine leaders and proponents of misinformation which knowingly lie to the American people are the real issue. Using the love, affection, and care of a parent for their children to push an agenda and create false distress is shameful. **The sources which spread misinformation should be the primary concern of the American people.**

Change is already taking place, as the largest source of misinformation comes from private social media platforms. In a 2011 study by the pew research center, 80% of Americans turn to

the internet for health related questions. This is dangerous due to the sources which spread misinformation online, and the surprising influence they hold. *The Atlantic* examined vaccine related posts on the social media platform Facebook from 2016-2019. In their article, they found that "Just seven anti-vax pages generated nearly 20 percent of the top 10,000 vaccination posts in this time period." This echo-chamber that a handful of sources generate create the majority of anti-vaccine information on these platforms, and with my mother it continues to influence her views along with countless Americans.

My mother would turn to some of the cited sources in this article by *The Atlantic*, using their information as a basis for her views. This was problematic, as with a quick inspection of the claims and evidence of these sites their intentions are revealed. Information is not properly cited, and data is skewed to create false claims. In one video published by the website "stopmandatoryvaccines.com" (which was listed as one of the top contributors of anti-vaccine information by the Atlantic), the measles outbreak was made out to be a unfounded panic created by big pharmaceutical companies and meant to push legislative agendas. Del Bigtree, a celebrity in the anti-vaccine movement, spoke with "Dr. Bob Sears." My mom and I sat down, watching this video so she could prove her beliefs were not unfounded.

In this video, Dr. Bob Sears claims that in the past 15 years there hasn't been a single death to the measles. In contrast, 449 people have had fatal reactions to the MMR vaccine. This completely ignores that if the measles disease was left to its own devices, it could cause an incomparable amount of deaths. The World Health Organization (W.H.O) estimates that "During 2000-2017, measles vaccination prevented an estimated 21.1 million deaths making measles vaccine one of the best buys in public health." I bring this up to show how in my own personal life this misinformation reached my family. Not only that, it led to the people I care about being put at risk.

In school, I was pulled out of class every year and told that if I did not receive my shots, I wouldn't be able to attend my high school. But, every year, I was opted out of these immunizations and, because of current legislation, I was allowed to attend a public high school despite placing my classmates in danger of contracting multiple preventable diseases.

The debate around vaccinations is not centered around information, but instead concerns on the health and safety of society. We must distinguish the difference between a personal view and a medical concern, a safety concern, and the dangers of such rhetoric. The information leading people to fear for their children, for themselves, and for their families is causing outbreaks of preventable diseases. Therefore, combatting this information while also working towards legislative changes may help protect our nation from needless deaths. My story highlights this misinformation and how it spreads. Between social media platforms, to using a parent's love as a tool, these lies cause people to distrust in vaccination, furthering the impact of a preventable disease outbreak and even contributing to the cause of diseases spreading. This needs to change and I only hope my story contributes to such advancements.