Ivan Cardona South Portland LD 51

Dear Honorable Members of the Joint Committee on Education and Cultural Affairs:

My name is Ivan Cardona and I am a resident of South Portland, Maine. I am writing in opposition of L.D. 51 as a Pediatric and Adult Allergy and Immunology physician in Maine, who has practiced for 23 years, and also, as a parent of two school-aged children ages 15 and 13. I apologize that I cannot be present today to testify in person, but appreciate the opportunity to provide my testimony in absentia.

Many of the patients I take care of have immune deficiencies. These are children and adults that are born with, or develop, defects in their immune system that prevent them from handling infections that people with healthy immune systems can handle easily. Many of these patients are extremely at risk for serious bacterial, viral, and fungal infections, and can even die from these exposures if not diagnosed early, and if not treated appropriately.

Whether we realize it or not, we all play a key role in the health and care of this vulnerable patient population. Many of my immune deficient patients can not receive certain vaccines because their immune systems are so weak that even the vaccine could cause them harm. Consequently, these patients have to rely on what is called "herd immunity," a term which, by now, I imagine, we have all heard of since the pandemic. But just to review, herd immunity is when there is resistance to the spread of an infectious disease within a population due to a general population that is well-vaccinated. It is because of herd immunity that vulnerable members of our community are dramatically less likely to contract a vaccine-preventable disease. So, in effect, by promoting optimal vaccination rates, we are all doing our part to help protect some of the sickest patients in our communities.

Herd immunity not only protects these immune deficient patients, but also protects infants, children, and adolescents who cannot safely receive specific vaccines because they are either too young to receive them (e.g. many vaccines can not be given until the age of 1), or they have other health conditions (some for similar reasons to my immune deficient patients). Many of these patients require medical exemptions given by their doctors and must rely on herd immunity in order to be protected from these vaccine-preventable diseases.

Taking this one step further, we are not just protecting our immune deficient patients, and our young people with medical exemptions through herd immunity, but we are also protecting all of us — our elderly, our wives, our husbands, our friends and our loved ones, many of whom may also be more susceptible to infection for a variety of other medical reasons.

But even the healthy members of our community gain protection from optimal vaccination rates, as sometimes vaccine immunity can wane over time. It is not a coincidence that vaccine-preventable disease outbreaks occur in areas with high vaccine refusal rates.

Many of us are fortunate to not have been alive or remember the pre-vaccine era. The number of people who died or were severely affected by these diseases were staggering. These statistics can be easily looked up. If the current anti-vaccine movement continues to grow, and if L.D. 51 and the other bills under consideration were to pass, it is not impossible to imagine that we could return to a situation that would be very scary indeed. In short, I believe that L.D. 51 threatens to undo our collective immunity and put all of us at risk.

The ideal time to receive most vaccines are early in life, before the person has had too much time to be exposed to infections. Moreover, schools provide a place for children to gather, and if vaccination rates were to drop below 90-95%, many of us in the healthcare and public health community fear schools will become "hotspots"—locales that fall below the threshold for effective herd immunity, and thus are primed for an

outbreak due to large pockets of unprotected children.

As a physician that stays current with the evidence-based medical literature, I can unequivocally attest to the facts: vaccines are overwhelmingly safe and effective and by far do more good than any possible harm.

As parents of two young children, my wife and I vaccinate our children primarily for their health and well-being; but as an immunologist, I know that it is critical to vaccinate our children for the health and well-being of our community as well.

In closing, I respectfully ask the Committee to vote "ought not to pass" on L.D. 51 and the other bills under consideration.

Thank you all for the work you do for the state, and thank you for the opportunity to share my position with you today on this important issue.

Sincerely,

Ivan D. Cardona M.D.