



Vermont Program for Quality in Health Care, Inc.

Date: May 12, 2015

To: William J. Lippert, Chair of House Committee on Health Care

From: Catherine Fulton, Executive Director of the Vermont Program for Quality in Health Care, Inc. (VPQHC)

RE: H.98 Act Relating to Reportable Disease Registries and Data - Testimony

Thank you Chairman Lippert for the opportunity to submit testimony to the Health Care Committee supporting House Act 98. This testimony supports the elimination of the philosophical exemption for the Vermont childhood immunization program by highlighting the significant cost savings and reductions in morbidity and mortality resulting from vaccination.

In 2014, *Pediatrics: Official Journal of the American Academy of Pediatrics*, published the “Economic Evaluation of the Routine Childhood Immunization Program in the United States, 2009” which examined the benefits and costs of the routine childhood immunization schedule. The article details the probability of hospitalization, length of stay, cost of hospitalization and cost per outpatient visit (in 2009 dollar values) across the selected vaccine-preventable diseases represented in the cohort. Length-of-stay ranged from 1.3 – 10.9 days for Measles cases, with associated costs between \$3,562 and \$40,695. For Hib (*haemophilus influenzae* type b conjugate) cases, stays ranged from 2.00 for acute cases up to 26.75 days for Hib with an associated complication of meningitis. Hospitalization costs associated with Hib cases ranged from \$3,632 up to \$43,501 (in 2009 dollars). The authors conclude “that routine childhood immunization among members of the 2009 US birth cohort will prevent [approximately] 42,000 early deaths and 20 million cases of disease, with net savings of \$13.5 billion in direct costs and \$68.8 billion in total societal costs, respectively.”

Additional studies have also detailed the high costs of vaccine preventable diseases, both related to the public health response and direct health care costs. For example:

- In Salt Lake County, Utah, between March-April 2011 a measles outbreak occurred when one unvaccinated high school student, who had been to Europe, brought measles back with him. Although only nine people became infected, the cost of containing the outbreak was about \$300,000. Costs included infection control in two area hospitals and intervention by local and state health departments. Costs also included physician and staff time, vaccines, immunoglobulin and blood tests, according to the study. Containing the outbreak meant contacting 12,000 people about possible exposure and quarantining 184 people, including 51 students. Of the teens not vaccinated, including the European traveler, six were unvaccinated due to personal exemptions. (Measles Outbreak from Unvaccinated, USATODAY.com)
- To stop a 14-person measles outbreak that began with one unvaccinated tourist visiting a US emergency room in Arizona in 2008, the Arizona Department of Health had to track down and interview 8,231 people, and seven Tucson hospitals had to furlough staff members for a combined 15,120 work-hours. The two hospitals where patients were

admitted spent \$799,136 to contain the disease. (Chen SY et al. Health Care-Associated Measles Outbreak in the United States After an Importation: Challenges and Economic Impact, JID 2011:203)

With the ever increasing accessibility of international travel and the increased risk of importation of diseases long thought to be eliminated, maintaining adequate herd immunity within populations to prevent the spread of vaccine-preventable diseases is essential. The vaccination schedule has been developed over eight decades and remains the best defense in protecting both individuals and the society at-large for these significant and potentially life-changing diseases.

In Vermont, we are reaching dangerous levels of children in schools not being vaccinated. According to the Vermont Department of Health, 86.9% of students entering Kindergarten were fully immunized in public schools; 72.2% of students entering Kindergarten were fully immunized in private schools. Many of these unvaccinated children's parents used the "philosophical exemption" currently in place in Vermont. For example, during the 2013-2014 school year, of the 205 Kindergarteners enrolled in a public school and exempt from MMR vaccination, nearly 94% (192 students) of them were not vaccinated citing philosophical reasons (Proposed Legislation Would Remove Philosophical Exemption for Vaccinations, VPR. February 3, 2015).

The majority of parental concerns against vaccines stemmed from a study by Andrew Wakefield, published in *The Lancet* in 1998, which linked the MMR vaccination with Autism Spectrum Disorders. According to the American Academy of Pediatrics, "since the study was published, 10 of the 13 authors have retracted the findings" and *The Lancet* went on to withdraw the study in 2010, citing misconduct on the part of the lead investigator, Wakefield. Further support for a lack of association can be seen in a study published in the Journal of the American Medical Association in April of 2015 titled "Autism Occurrence by MMR Vaccine Status Among US Children With Older Siblings With and Without Autism." The authors of this study looked at a large cohort of over 95,000 children enrolled in an unnamed private health plan from birth to at least five years of age during 2001 – 2012 who also had an older sibling enrolled for at least 6 months between 1997 and 2012. The authors conclude that "receipt of the MMR vaccine was not associated with increased risk of ASD, regardless of whether older siblings had ASD. These findings indicate no harmful association between MMR vaccine receipt and ASD even among children already at higher risk for ASD." Finally, Autism Speaks, an advocacy organization that helps to fund Autism research, has stated that "Over the last two decades, extensive research has asked whether there is any link between childhood vaccinations and autism. The results of this research are clear: Vaccines do not cause autism. We urge that all children be fully vaccinated."

As a result of widespread use of vaccines in the US, the mortality and disability associated with these childhood diseases had been virtually eliminated. There is a full generation of young parents today who have not seen the residual complications of measles, mumps or polio unless they experienced travel abroad to areas of the world where the complications of these childhood diseases can be seen. But with the growing number of parents choosing not to vaccinate their children, we are seeing increasing numbers of outbreaks of vaccine preventable disease. For example, there were 23 measles outbreaks in the United States in 2014, one of which diagnosed 383 cases (CDC). In a study looking at measles cases between January and May of 2014, an examination of 288 cases revealed that of the US residents (195) who were unvaccinated and contracted the disease, "165 (85%) declined vaccination because of religious, philosophical or personal objections, 11 (6%) were missed opportunities for vaccination, and 10 (5%) were too young to receive vaccination" (*Measles – United States, January 1 – May 23, 2014*. MMWR, June 6, 2014).

It is not possible to vaccinate every child in this country, as there are some children who cannot be vaccinated for medical reasons. For children who have no medical contraindications, it is essential that we continue encouraging their parents to have them vaccinated. Studies have shown vaccines are not only safe, but contribute to significant health care savings. By removing the philosophical exemption, we are protecting those children that can't be vaccinated from potential illness and death in addition to saving healthcare dollars. To this end, the Vermont Program for Quality in Health Care emphatically supports the removal of the philosophical exemption.

Thank you for your time.

A handwritten signature in cursive script that reads "Catherine G. Fulton".

Catherine Fulton, Executive Director

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