Testimony Presented to Health and Human Services Committee
Regarding HB 2094
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To allow a vaccine exemption for philosophical reasons in the State of Kansas would negatively impact the health of all Kansas children. The landmark case of *Jacobson v. Massachusetts* in 1905 is cited as the foundation for public health laws when the Supreme Court endorsed the rights of states to pass and enforce compulsory vaccination laws. The enforcement of vaccine mandates results in a decreased number of hospitalizations and deaths. As of 2008, all states have medical exemptions, 48 states have religious exemptions, and 21 states allow philosophical or personal beliefs. States that allow exemptions for philosophical or personal beliefs have a mean exemption rate that more than doubled after the passage of the law (NEJM, 2009).

The Advisory Committee on Immunization Practices, which advises the Centers for Disease Control and Prevention (CDC), and the Committee on Infectious Diseases, which advises the American Academy of Pediatrics have the expertise in virology, microbiology, statistics, epidemiology, and pathogenesis necessary to review the studies that inform their recommendations. These experts use evidence based research to make vaccine recommendations. They do not take lightly the implication of these recommendations. Parents are sometimes misinformed about vaccines side effects, effectiveness, etc. The source of a parent's information may be something heard in the local coffee shop or seen in a non-research based publication. Rightly so, parents worry about their children's health. It is the medical community's responsibility to educate parents on the importance of vaccinations and the states responsibility to not give parents an easy way out of vaccinating their children and protecting their health.

Research demonstrates that states allowing personal belief exemption have a higher rate of vaccine preventable disease compared with states without such exemptions. Vaccines are among the most effective and safest tools available for preventing infectious disease and their complications. Vaccines are "good science", are tested for a longer time frame and are tested in high numbers of children compared to new drugs. Overall, vaccines have an excellent record of safety. High immunization coverage has resulted in drastic declines in vaccine-preventable diseases. The high price of relying on natural immunity, occasionally resulting in severe and fatal disease, is a risk not worth taking (Pediatrics, 2009). Because of recommendations and advancement of vaccine technology, vaccines have helped to increase the lifespan of individuals in the United States by 30 years.

As a result of substantial gains in reducing vaccine-preventable diseases, the memory of several infectious diseases has faded from the public consciousness and the risk-benefit calculus seems to have shifted in favor of the perceived risks of vaccination in some parents' minds. Immunization requirements have resulted in quick improvement in local coverage and control of outbreaks. High vaccine coverage, particularly at the community level, is extremely

important for children who cannot be vaccinated, including children who have medical contraindications to vaccination, and those who are too young to be vaccinated. These groups are often more susceptible to the complications of infectious diseases than the general population and depend on the protection provided by the vaccination of other children. Vaccine refusal not only increases the individual risk of disease but also increases the risk for the whole community.

In today's society travel all over the county and world is common. Relaxed vaccination laws would increase the communicable disease spread. For example, an unvaccinated child traveling to a country with polio could become infected with the disease, and bring it back to this country causing transmission to vulnerable unvaccinated populations. A real life example occurred when an unvaccinated 19 year old returned from India to Iowa with a case of measles. The case had a non-medical exemption for MMR vaccine. This case had the potential to infect susceptible people in four airports and over three continents. Although incidence of measles is low in the United States because of high immunization rates, the disease infects 30 million susceptible people in developing countries and claimed the lives of 614,000 children.

An additional example is much closer to home. In the spring of 2011, Johnson County reported six cases of measles. The initial identified cases involved three unvaccinated siblings. As the investigation progressed, three infants under the age of one year were also identified as measles cases. These infants were too young to be vaccinated and had been exposed to an unknown source that could not be identified. This demonstrates the danger to those not able to be vaccinated.

The costs associated with this investigation were assessed as follows: 1) 2,000 staff hours responding to the outbreak, and 2) total cost of outbreak response, including overhead, labor, travel and other costs at $90,000. The majority of the costs occurred in the first 14-day period when intense contact tracing was done to include schools, daycares, physician's offices and hospitals.

Between 1991 and 2004, the mean annual incidence of Pertussis (whooping cough) was almost twice as high in states with administrative procedures that made it easy to obtain exemptions compared to states that made it difficult (NEJM, 2009). Children with nonmedical exemptions are at increased risk for acquiring and transmitting vaccine preventable diseases. Recent outbreaks of measles in 15 states, caused by an erosion of herd immunity in communities where parents had chosen not to vaccinate their children, were the largest in the United States since 1996.

In a retrospective cohort study based on nationwide surveillance data from 1985 through 1992, children with exemptions were 35 times as likely to contract measles as nonexempt children (relative risk, 35; 95% confidence interval [CI], 34 to 37).34 In a retrospective cohort study in Colorado based on data for the years 1987 through 1998, children with exemptions, as compared with unvaccinated children, were 22 times as likely to have had measles (relative risk, 22.2; 95% CI, 15.9 to 31.1) and almost six times as likely to have had

Pertussis (relative risk, 5.9; 95% CI, 4.2 to 8.2).35 Earlier data showed that lower incidences of measles and mumps were associated with the existence and enforcement of immunization requirements for school entry (Allison Kennedy, 2011).

Before the hepatitis B vaccine became part of the routine schedule for children, annually, 16 000 children less than 10 years of age were infected with hepatitis B virus after nonsexual, person-to-person contact. Before the conjugate pneumococcal vaccine became part of the routine schedule in 2000, pneumococci caused 17,000 cases of invasive disease every year in children less than 5 years of age, resulting in 700 cases of meningitis and 200 deaths (Pediatrics, 2009).

Additionally, parents sometimes find it easier to claim a vaccine exemption than to take the time, money, and effort required for getting the vaccines. Schools and daycares see this happen on a routine basis. The parent is asked to submit/update the child's vaccine record by a certain date and suddenly the parent is claiming a religious exemption. Additionally, high schools sometimes see exemptions requested when the true reason is that the teenager just doesn't want to get "a shot". Allowing an "easy out" is not in the best interest of children in Kansas.

An economic evaluation of the impact of seven vaccines (DTaP, Td, Hib, Polio, MMR, Hepatitis B, and Varicella) routinely given as part of the childhood immunization schedule found that the vaccines are tremendously cost-effective. Routine childhood vaccination with these seven vaccines prevents over 14 million cases of disease and over 33,500 deaths over the lifetime of children born in any given year, resulting in annual cost savings of $10 billion in direct medical costs and over $40 billion in indirect (CDC, 2007). Indirect costs include such factors as the amount of time that parents will be out of the work place due their children contracting more disease preventable diseases.

In conclusion, to quote Dr. Paul Offit, "some would argue that philosophical exemptions are a necessary pop-off valve for a society that requires children to be injected with biological agents for the common good. But as anti-vaccine activists continue to push more states to allow for easy philosophical exemptions one thing is clear, more and more children will suffer and occasionally die from vaccine preventable diseases. Given the increasing number of states allowing philosophical exemptions to vaccines, at some point we are going to be forced to decide whether it is our inalienable right to catch and transmit potentially fatal infections (Paul Offit, 2007).

Works Cited

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