

Interested Party Testimony for HB 248
“Vaccine Choice and Anti-Discrimination Act”
Primary Sponsor: Representative Gross
Interested Party Testimony: Michael N. Dohn, MD MSc
Ohio House Health Committee ~ June 15th, 2021

Chairman Lipps, Vice Chair Holmes, Ranking Member Russo, and members of the Ohio House Health Committee. I am Dr. Michael Dohn. I serve as the Medical Director for Public Health - Dayton & Montgomery County. Thank you for the opportunity to submit testimony as an interested party concerning HB 248.

I have previously written to inform Committee Chair Lipps of my personal viewpoint on HB 248. After reviewing testimony given before the House Health Committee earlier this week that contained misinformation and rather incredulous claims, I thought that your deliberations might benefit from additional information from credible sources and experts. Accordingly, I am writing now in my professional capacity that carries an obligation to act to protect the public’s health.

The Coalition against HB 248. I am aware of the coalition of professional medical, medical practice, health care, hospital, health insurance, coroner, pathologist, pharmacy, social service, nursing, and business organizations and the points that they have communicated to the Health Committee in opposition to HB 248. Among those organizations are some to which I belong, such as the Ohio State Medical Association, the Montgomery County Medical Society, the American College of Physicians, and the Ohio Public Health Association. As a public health official, I concur with the objections and issues raised by that coalition concerning HB 248 and the deleterious consequences for the health of Ohioans.

I do not propose to re-iterate the points that the coalition and others are making. My intent is to offer the House Health Committee the benefit of some recently published information that has a bearing upon your decision.

The economic cost of failure to control communicable diseases is substantial. A recent analysis of a measles outbreak in Washington State quantifies the cost of lapses in vaccine policy (Pike et al., 2021). An imported case of measles

entered a community with insufficient vaccination levels and quickly resulted in an outbreak involving 72 cases (42 laboratory-confirmed and 30 epidemiologically linked to confirmed cases). The authors estimate that management of the outbreak cost about \$3.4 million including direct and indirect medical care expenditures, public health expenses, and productivity losses from illness, home isolation, quarantine (including 375 individuals age 15 years or older and the caregivers of 173 children aged less than 10 years), and informal caregiving activities. The disease itself can cause economic disruption independent of any governmental actions. The best economic protection is to maintain high vaccine rates among the populace. Awareness of the economic impact of vaccine preventable diseases may contribute to the concerns with HB 284 from the business community and others.

Through the COVID-19 pandemic, people have become aware of the concept of “herd immunity.” For some communicable diseases (such as measles) small differences in vaccine uptake produce substantial differences in the risk of infection in a population. For example, the measles vaccine uptake of 2 MMR (measles, mumps, rubella) vaccines among kindergarteners across the USA is 94% and this appears sufficient to protect the population. A decrease in the vaccine uptake among kindergarteners by about 3 percentage points to 90.8% in Washington state was enough to permit this outbreak to occur. Among the cases, 86% were not fully vaccinated against measles.

Any small incremental decrease in vaccine coverage in the population for whatever reason exposes citizens to increased risk. Not all communicable diseases have a clear “herd immunity” level. Influenza, for example, shows incremental improvement in the protection level for the population occurs across the levels of vaccine uptake; that is, the more individuals who are vaccinated, the more the population is protected (without a discernable “herd immunity” vaccination level). The SARS-CoV-2 virus that causes COVID-19 appears to follow similar dynamics. For example, Israel observed effects to population level transmission of SARS-CoV-2 with vaccine uptake levels of just 40% and an increasing effect on transmission as vaccine uptake increased. Accordingly, the higher the vaccine uptake the better the protection for the entire population without any apparent plateau. For COVID-19, like Influenza,

even the final few percentage points of vaccine uptake may have an impact on disease risk and transmission, and the subsequent illness and economic disruption.

Vaccine requirements protect health and support health equity. Two recent articles published in the Journal of the American Medical Association discuss the question of mandatory vaccination against SARS-CoV-2 and are representative of the current medical and public health data that underlies the pragmatic considerations of requiring vaccines and monitoring vaccination levels (Gostin, Shaw, & Salmon, 2021; Talbot, 2021).

Both articles propose that requirements for vaccination against SARS-CoV-2 is a “logical addition” (to use the words of one author) to the current protections offered students and employees within existing academic and institutional safety programs. HB 284 stands in stark contrast to these summaries of best practice and considerations for protecting people’s health.

Talbot writes, “One of the true scientific triumphs of the COVID-19 pandemic has been the development of safe and highly effective vaccines against SARS-CoV-2.” The Committee has heard challenges to this statement in testimony; the overwhelming information is that vaccines that have completed the FDA process and independent review for vaccine approval (or authorization, which is basically the same process except that the FDA actually required additional evidence beyond the standard measures for the COVID-19 vaccine) are safe and effective. The COVID-19 vaccine is no exception.

Gostin and colleagues write that mandatory vaccination and proof of vaccination increase vaccine uptake and promote health equity when applied across a population (for example, school children) irrespective of socioeconomic or other status. Health equity and the decreasing of health disparities among Ohioans is a priority for public health and local governments across Ohio. This consideration applies to schools, colleges and universities, and businesses.

Ohio presently requires childhood immunizations, and this is good for our children’s health and for parents’ wellbeing. Vaccine requirements help to diminish health disparities in Ohio. Even though vaccines are required, Ohio law has a vaccine

consent approach that is considered very lenient compared to other states, with parents allowed to opt-out of vaccination for various reasons. Mandating that parents are apprised of their options to opt-out of vaccination will not help our children. The American Academy of Pediatrics recommends COVID-19 vaccination for all young people aged 12 and over as authorized for the Pfizer mRNA vaccine. Gostin and colleagues suggest eventually adding COVID-19 vaccine to required immunizations for children and youth as more information becomes available for these age groups because the vaccine “will provide important direct and indirect benefits.” HB 284 would block any such benefits as might be accrued by Ohio citizens.

Vaccines can prevent cancer. The current HPV (Human Papilloma Virus) vaccine prevents cervical cancer and squamous cell carcinoma. We are at the point where vaccines to prevent other cancers or induce direct attack on cancer cells are on the horizon (Tay et al., 2021). The lack of specificity and general anti-vaccination suppositions that apparently underlie HB 284 add to the growing and unwarranted mistrust of vaccines. Legislation such as HB 284 encourages anti-vaccination sentiments by appearing to give an official stamp-of-approval to actions contrary to best medical practice and the promotion of good health. By promoting non-evidence-based policy regarding vaccination, the Legislature would be undermining the foundational scientific tenets that maintain the health of Ohioans, and would threaten future opportunities to benefit fully from new vaccine technology in the area of cancer prevention and treatment, for example.

Opposition to vaccination is not new. The Rev. Cotton Mather and Dr. Zabdiel Boylston began offering smallpox inoculation to the population in Boston in the early 1700's. Subsequent studies, as crude as the epidemiological methods were at that time, easily demonstrated the effectiveness of this vaccination approach. However, hostility toward inoculation existed and Mather's home was even bombed during the 1721 smallpox outbreak (Riedel, 2005). Since then, the eradication of smallpox from the earth through a managed global vaccination strategy is one of the triumphs of humankind against infectious disease. Polio is close to the global eradication goal, but even today faces opposition in parts of the world where polio continues circulating.

The history of vaccine effectiveness in controlling infectious diseases (the Centers for Disease Control and Prevention identified the control of vaccine preventable diseases as the first of its Greatest Public Health Achievements of the 20th Century) is one of recognizing and overcoming objections and opposition to vaccination in order to advance the public good and preserve the public health and the economy.

In Summary, I would ask that the members of the Ohio House Health Committee carefully consider the collective opinions of the vast majority of health care professionals in Ohio and appropriately balance all the ideas that the Committee is hearing so that you might act in the best interest of all Ohioans.

Thank you for your service and for accepting this testimony. I hope that it offers some additional useful ideas and concepts.



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References

- Gostin, L. O., Shaw, J., & Salmon, D. A. (2021). Mandatory SARS-CoV-2 Vaccinations in K-12 Schools, Colleges/Universities, and Businesses. *JAMA*. doi:10.1001/jama.2021.9342
- Pike, J., Melnick, A., Gastañaduy, P. A., Kay, M., Harbison, J., Leidner, A. J., . . . DeBolt, C. (2021). Societal Costs of a Measles Outbreak. *Pediatrics*, 147(4), e2020027037. doi:10.1542/peds.2020-027037
- Riedel, S. (2005). Edward Jenner and the history of smallpox and vaccination. *Proc (Bayl Univ Med Cent)*, 18(1), 21-25. doi:10.1080/08998280.2005.11928028
- Talbot, T. R. (2021). COVID-19 Vaccination of Health Care Personnel as a Condition of Employment: A Logical Addition to Institutional Safety Programs. *JAMA*. doi:10.1001/jama.2021.8901
- Tay, B. Q., Wright, Q., Ladwa, R., Perry, C., Leggatt, G., Simpson, F., . . . Cruz, J. L. G. (2021). Evolution of Cancer Vaccines-Challenges, Achievements, and Future Directions. *Vaccines (Basel)*, 9(5). doi:10.3390/vaccines9050535