

## *Jacobson v. Massachusetts: Alternate Perspectives in 2005*

### Introduction

Richard A. Goodman, MD, JD, MPH

Thank you very much. Let us now go to Dr. DeMaria.

### Health Department's Perspective

Alfred DeMaria, Jr., MD

Well, I would like to say that I really appreciate this opportunity to revisit *Jacobson*, and I am here basically as a frontline public health disease control officer who happens to be from the state that was the defendant in this case. There was another meeting back in 1992 about tuberculosis control in New York City sponsored by the United Hospital Fund. I was reminded that when I came down to breakfast, in a room very much like this, at that meeting, I was hailed by one of our public health nurses who introduced me to a table of TB control people from another state: "Here is Al DeMaria. He locks them up in Massachusetts." You know that was sort of a recognition that I do carry out the commissioner's authority to activate the Menace Law in Massachusetts, Chapter 111, Section 94A-G, which sets out how to detain someone with tuberculosis and prevent transmission. We do not do it very often. As a public health professional, I am very cognizant of the abuses of state power of public health and how it was used. As a child of the 60s, I sort of appreciate that feisty Swede, Henning Jacobson, and the fact that he resisted. There is a dynamic tension when you are trying to practice public health and do it in a way respectful of human rights, but also respectful of the epidemiology and risk of communicable diseases, I really appreciate the opportunity my position and participation in these proceedings has given me to learn about *Jacobson* and appreciate it more fully. When you start in public health, all you learn about *Jacobson* is that it allows you to do things. You do not really get the full appreciation of the nuances. Wendy compared it to the Iliad last week. I am not sure I would go that far, but it talks about necessity and reasonableness, and proportion and minimizing harm ~ you get an appreciation of the historic context, both in the law and in public health, and how it not only allows you to do things, but sets the parameters. I have also come to appreciate the fact the Massachusetts is a Commonwealth, as are Kentucky, Virginia and Pennsylvania. When anybody says the "State of Massachusetts", I cringe because it is the "Commonwealth of Massachusetts" and that has a special significance in terms of a social contract construct that I think is important in looking at this case.

What I have gotten from this process is a much deeper appreciation not only of what *Jacobson* allows me to do as a public health officer, but also how it allows me to do it in a human rights and social contract context, while protecting the public from disease. We really have to look at *Jacobson* in the context of smallpox. Smallpox was a horrendous disease. It killed untold millions of people. Cotton Mather and Zabdiel Boylston in 1721 were doing variolation, inoculation with smallpox virus itself, where people would actually take a one in 20 risk of dying of the inoculation to prevent 30 percent mortality in an unpredictable circumstance. So, when Abigail Adams took the kids into Boston to get variolated, they were doing it because they really feared smallpox which was a horrendous disease. From a public health standpoint, they were also putting the public at risk by doing it. It was relatively well-to-do who got variolated, and they presented the risk because once variolated, they could be sources of smallpox, wild type smallpox, to the rest of the

population. So, it was not a simple matter to get variolated. In 1796, Edward Jenner did his experiments with cowpox. He took cowpox virus from a sore on the hands of milkmaid Sarah Nelmes and scratched it into James Phipps, and then a month later ~ actually inoculated James Phipps with smallpox. (This would not have gotten an IRB now. I am pretty sure.) Vaccination (inoculation with cowpox virus) took off like gangbusters, but he had trouble publishing his results. Although he was a Fellow of the Royal Society (he wrote this great book about the natural history of cuckoos), they would not publish him. He had to publish on his own in 1798. But by 1800, Benjamin Waterhouse was vaccinating people in Boston, and by 1805, over 100,000 people in the United States were already vaccinated. It had a tremendous impact leading to Massachusetts requiring vaccination in 1811, with a substantial reduction in case rate down to three per 100,000. When there was an anti-vaccination reaction in the 1830s and the law was reversed, the rate went back up to almost 50 per 100,000 and stayed that high even with the law. It was not until 1871, when there was a horrendous resurgence of smallpox, that compulsory vaccination was enforced. When in 1901 to 1903 we had the resurgence of smallpox, it was in the context of 30 years with enforced law that kept the disease rate under one per 100,000, when it had been up to 50 per 100,000. So, there was a tremendous sense in the public health community that they were doing the right thing. They had empirical evidence that compulsory vaccination did prevent smallpox and reduce incidence.

Finally, the question came up about where this vaccine came from, and I think, to be fair to Henning Jacobson and the anti-vaccine people, it was for the most part of the 19<sup>th</sup> century arm-to-arm vaccination. Your local GP would vaccinate somebody and then vaccinate other people from that person at day seven when they opened up the “Jennerian pustule” that resulted from vaccination, put thread in it, and then cut up that thread and scratch it into other people’s arms. You could actually get syphilis that way, if your source of vaccine had syphilis. It wasn’t until around 1864 that heifers were used to make vaccine. Massachusetts began making vaccine at the state public health laboratory in 1904 as a result of the 1901 to 1903 outbreak. (We found this film from the 1940s where they bring in this calf, flip it over, scrape its abdomen with rakes until bleeding, and then rub in virus, to be harvested by scraping of the resulting pus after viral growth. In point of fact, between the mid 19<sup>th</sup> century and 1902, most vaccine came from vaccine farms, actual farms that grew vaccine. It was an unregulated industry with significant deficiencies in good manufacturing practices. It was not totally unfounded to be concerned about this vaccine. It was a few years after the resurgence of smallpox in the early 20<sup>th</sup> century that the vaccine industry was regulated, and a lot of it was due to poor quality and incidents such as people getting tetanus and skin infections from vaccination.

Jacobson provides a lot of lessons. One lesson in the decision is that the Court recognizes that the General Court of Massachusetts had the power to make law to mandate vaccination, but they also held that the people of Massachusetts and the General Court could ban vaccination and that would be equally valid. So, I think it is a very complex case, with fascinating ramifications for both public health and the law. I really appreciate having the opportunity to share some of my perspective and participate on this panel. Thank you.

**Richard A. Goodman, MD, JD, MPH**

Al, thank you very much.