

## Fear, Mandates, and Herd Immunity

Dick Atlee, 30 April 2019

By the time you read this, the state Senate will have either passed or killed LD798, the vaccine mandate bill. This bill, like its sudden rush of cousins in other states, is said to be [protecting school children from disease](#). It proposes to do this by achieving "herd immunity" through vaccinating more than the magic number (95% of them) with the whole CDC schedule of vaccines.

Why this sudden rush? There have actually been no dramatic changes to levels of vaccination in recent years, and vaccines vary greatly in terms of their relevance and effectiveness. No, it's all about fears raised about the current outbreaks of one specific disease — measles — despite such outbreaks having [occurred regularly](#), if usually smaller, over the past 20 years.

Proposing across-the-board mandates for all vaccines in a public climate focused on only one disease makes no scientific sense. No attention is given to the relevance — or [lack thereof](#) — of all the other infections targeted by the vaccines that would be included. Consider just the seven addressed by the DTaP, MMR(V), and HepB vaccines:

- **Diphtheria** — long ago [eliminated in the US](#) [vaccine irrelevance];
- **Tetanus** — [cannot be passed](#) from one person or infant to another [vaccine irrelevance];
- **Pertussis** — vaccinated people have been shown to be more likely to be dangerously [silent pertussis carriers](#) than unvaccinated people who have had pertussis, and are more susceptible to the [now-dominant new strain](#) [vaccine unintended consequence, antigenic drift];
- **Measles** — even with a booster, vaccine immunity eventually wanes, after which further boosting is [effective for only a year](#); infants are [not given the vital year of maternal protection](#) provided by mothers with natural immunity; the result of these is that babies and older adults — less tolerant of the infection — are at [increased risk](#) [vaccine failure, unintended age-shift consequence];
- **Mumps** — cases and outbreaks occur annually in [far greater numbers](#) than measles, with an age-shift from disease-tolerant children to adults, in whom [serious reproductive damage](#) is common [vaccine failure, unintended age-shift consequence];
- **Rubella** — eliminated in the Western Hemisphere [since 2004](#), not seen in Maine in at least a dozen years [vaccine irrelevance];
- **Chicken-pox** — a [mild disease](#) in children has been replaced by a [growing prevalence of serious shingles](#) (the same varicella virus) at all ages, due to the loss of the natural boosting power provided by virus circulating in the community [unintended age/disease-shift consequence];
- **Hepatitis-B** — a disease of users of IV drugs and prostitutes, yet administered on the [first day of life](#) to babies born of the vast majority of mothers who don't have Hepatitis-B [vaccine inappropriateness].

Where in all these known facts is "herd immunity" to be found? Modern "herd immunity" is an abstract mathematical construct far removed from its [original description](#) eight decades ago as

provided by a 68% level of \*natural\* measles immunity. Measles vaccine failed at this level, and at all the [increasing target levels over the years](#), to the present mythical 95% level, at which [outbreaks of measles still continue](#).

Why? Three reasons: (a) babies under a year old [cannot be vaccinated effectively](#), (b) [2-10%](#) of vaccinated individuals develop no immunity, and (c) vaccine immunity wanes with time. A 95% vaccination rate is certainly possible (and in fact is [present in Maine](#)), but a 95% level of actual immunity is not. In fact, prominent vaccinologist Gregory Poland has [asserted](#) that measles herd immunity isn't possible unless nearly 100% of people receive a nearly-100% effective vaccine.

"Herd immunity" isn't going to happen, no matter how many children are forced to undergo measles vaccination. Similar complexities apply to other vaccines.

All the pressure for strict mandates is focused on claims of the danger of measles, and its risk of death. Yet in all the recent news-making outbreaks, the press never asks how many of the "victims" were adults ([Disneyland: median age 22](#)), how many were fully vaccinated ([Disneyland: 7%, 43% unknown](#)), how many recovered just fine in the usual week-or-so timeframe and are now armed with lifelong immunity (unknown), and how many died (none).

Instead, the [CDC](#) and the [press](#) claim that 1 in 1,000 victims will die, ignoring the CDC's own death rate data from immediately before the vaccine came into use, calculated using [estimated rather than reported cases](#). That rate — around [0.15 per 1,000 cases](#), 6-8 times smaller than their current claims — is [lower than deaths](#) from falls, freezing, drowning, or lightning strikes, to name a few. And it's *miniscule* next to the annual hundreds of thousands of avoidable deaths, injuries, and sickness attributed to [hospitals](#) and [general medical errors](#). Yet who is demanding that any of those be addressed by mandatory legislation?

The historical fact is that the mortality rate of all childhood infectious diseases [plummeted](#) during the 50 years before vaccines, due to [improvements in public health conditions](#). The same was true for those diseases for which there never were vaccines — e.g. [scarlet fever](#). The virulence of these diseases had also declined, for the same reasons.

Yes, vaccines did reduce the incidence of disease (which was also declining pre-vaccine). But there are significant trade-offs. Some of these are mentioned above, plus the fact that these vaccines are implicated in [many deaths and serious and sometimes-permanent injuries](#). The balance of risk and benefit — both for the vaccines in and of themselves, and with respect to the variations in individual response — is a tremendously complex calculation not resolved by dangerously over-simplified one-size-fits-all mandates.

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\* Here are the CDC's own actual annual averages for before the vaccine was introduced in 1962 (<https://www.cdc.gov/vaccines/pubs/pinkbook/downloads/meas.pdf>, p.8):

- Infections *reported*: 500,000 (most infections were too minor to report, at least the "old days")
  - Infections *estimated*: 3-4 million (6-8 times as many as were reported)
  - Deaths reported: 500 (probably close to actual deaths, given the obviousness of death)
  - Death rate (calculated from the above data):
    - 1 per 1000 *reported* cases (cited now by the CDC), *BUT* . . .
    - **0.12-0.15 per 10,000 estimated measles cases** (6-8 times smaller)
    - 0.022 per 10,000 in whole *population*
- ([https://www.cdc.gov/nchs/data/vsus/Vsus\\_1960\\_2A.pdf](https://www.cdc.gov/nchs/data/vsus/Vsus_1960_2A.pdf), page 5-16 — [relevant excerpt](#))