

January 9, 2022

Delta, and then Omicron

Many Americans have become experts in Greek letters. Your blogger uses them in the equations that he writes for professional papers. He uses *delta* a lot, but seldom *omicron*, because *omicron* looks like the number zero, which can be confusing in mathematical models.

The *omicron* variant of the COVID-19 virus seems to be much more contagious than even the recent *delta* variant. In the past several days, according to CDC (https://covid.cdc.gov/covid-data-tracker/#trends_dailycases), we have had more than half a million new cases per day. Is this the variant that is going to bring us herd immunity? Is this the variant that will end the COVID-19 pandemic?

[Megan Leonhardt](#), writing in *Fortune*, reports expert opinion that Omicron may bring “a level of herd immunity”—but not for long and likely at a terrible cost. Herd immunity with COVID-19, it seems, is time sensitive. As long as COVID-19 can mutate, it may be able to “end run” the herd immunity built up against previous versions.

Take influenza, for example, commonly known as the flu. We see seasonal outbreaks, but flu shots (developed each year to address the particular strains of flu) can mitigate the worst of the effects. Before each flu season, scientists try to predict the dominant strains and then develop the vaccine to match the prediction. Some years are more accurate matches than other years. The scientists do the best they can, and some protection is better than no protection. It is a big respiratory virus that still sees seasonal outbreaks, but flu shots help to mitigate the worst of the effects. Dr. Gregory Poland, head of the Mayo Clinic’s Vaccine Research Group says “That’s what slowly seems to be happening with coronaviruses. It will change and become endemic.”

YB’s daughter was born in 1989. As recently as the early 1990s, some parents would deliberately expose their children during so-called “chicken pox” parties because there was no vaccine available, and it was “better” that they get the disease early (a cousin in her twenties got chicken pox and was sick for weeks). Having had chicken pox, one could not get it again (no *delta* or *omicron* variants) however one could develop shingles later in life.

YB’s daughter reached the age of seven without getting chicken pox. At that time, a vaccine became available. The family physician recommended it, and YB’s partner asked if the physician would give it to his own daughter. The physician’s affirmative response led to the vaccination, and no chicken pox.

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This is a health economics blog, and health economists look for economic efficiency. Efficiency is defined as the least cost way of achieving a goal. Vaccinating and boosting is economically efficient. Working through the *delta*, *omicron*, and who knows what additional Greek letters, is not.

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