

October 26, 2021

To: The Wabash Community

From: President Scott E. Feller

Re: Booster Shots

Last week at dinner, a small group of faculty, upperclassmen, and I discussed some of the memorable moments of our campus response to the early stage of the pandemic in March of 2020: scrambling to bring study abroad and immersion trip participants back to campus, navigating the move to virtual classes (anyone remember Big Blue Button?), and the all-campus Chapel where Nurse Amidon, Dr. Roberts, and I reviewed what was known about COVID-19. We could only speculate on what COVID-19 would be like based on our understanding of other respiratory viruses as limited scientific or clinical research was available to us.

On my way home from that dinner, I reflected on how much our knowledge base has increased. In any given week we now gain more insights about COVID-19 than the total of what we knew in late March 2020. And while these tremendous scientific advances are to our advantage, their pace – and the questions that new findings often raise – leaves us just as challenged in our individual and institutional decision making.

At the beginning of the semester, we had to deal with rapid changes in our understanding of vaccine effectiveness. Thankfully, that has converged around a consensus that vaccines are highly effective, especially at preventing severe disease among individuals without compromised immune systems. We now face a period of intense growth in our knowledge of the long-term immune response provided by both vaccination and prior infection.

These new findings are informing recommendations for COVID-19 vaccine boosters, as well as our understanding of what to expect as COVID-19 transitions to an endemic disease where exposure to — and occasional infection by — a largely defanged virus will likely be commonplace. The messaging of boosters from scientists and public health officials has been confusing. Some of the confusion is due to changes in advice based on accumulated knowledge from studies of vaccines in large populations. And like vaccine effectiveness, some of it comes from differences in terminology. The term "booster" shot is commonly used in different ways. A booster is associated with vaccines whose effectiveness is expected to wane over time — like influenza and tetanus — where we receive doses annually or decanally, respectively. But we often use the term for the many vaccines that require multiple doses as part of the primary series, such as the Shingles vaccination, which is a two-dose regimen.

At this point we are confident that COVID-19 vaccine boosters are extraordinarily safe and beneficial in certain populations to reduce infections and, more important, severe illness, hospitalization, and death. Questions remain regarding adjustments to the interval between doses, as well as whether additional boosters will be needed in the future to establish robust and long-lived immunity. On top of those conversations, we have debates over who benefits enough from an additional dose to warrant one, and the ethical considerations of using additional doses to reduce infections in developed countries rather than to reduce disease in less resourced parts of the world.

These are all important conversations, but they also increase anxiety and sometimes detract from the critical message public health experts want to share: the only way out of the pandemic is through immunity acquired from vaccination. This includes those who have had COVID-19 because the immune response to natural infection is variable. If you have friends or family members who have not yet been vaccinated against COVID-19, please encourage them to talk with a trusted medical provider and to be vaccinated.

Last week brought the strongest evidence yet for the value of additional doses, and approval and guidance from advisory committees and staff scientists at FDA and CDC, summarized as follows:

- Anyone who received a J&J immunization at least two months ago can and should receive a second dose.
- Anyone 65 or older, or who is 18 and over and at elevated risk due to <u>underlying medical</u> <u>conditions</u> or who lives or works in <u>high-risk settings</u>, and completed the Pfizer or Moderna vaccination series more than six months ago, can seek a third dose.

Notice that the **CDC explicitly recommends a booster for all who received J&J**. Studies have shown that immunity from J&J declines more rapidly than that of the Moderna and Pfizer vaccines, leading to the guidance to seek a booster immediately.

Last week also brought <u>results</u> from a large (10,000 participants), randomized, double-blind, placebo-controlled study (though not yet peer-reviewed) on the effectiveness of a third dose of the Pfizer vaccine. While we have benefited from data on third dose effectiveness from Israel, and to a lesser extent England, those were primarily observational studies that I feared suffered from confounding variables. I was pleased to be proven wrong by the Pfizer trial that demonstrated an incredible 96% effectiveness (against Delta) compared to the two-shot regiment that was already quite good. In simple terms, the third shot reduced the probability of a symptomatic breakthrough infection by a factor of more than 20 for a cohort of fully vaccinated individuals, representing all ages.

An easy way to schedule an additional dose locally is to visit <u>ourshot.in.gov</u>. All you need to do is attest to the eligibility requirements; you do not need documentation supporting eligibility. While this is good guidance, your primary care provider is ultimately your best source of information. Wabash students are welcome to contact the Student Health Center with questions. Recipients of the J&J vaccine may wish to discuss with their health care provider which booster to seek. Although a second dose of J&J has been shown to induce an adequate booster response, <u>studies</u> have shown that receiving a single dose of either Moderna or Pfizer induces a much more robust booster response than a second J&J.

At this time, we are not planning an on-campus booster clinic, given the availability of vaccine doses in our community and not wanting to take resources away from initial vaccination sequences.

Given the low rate of infections that we have seen in our fully vaccinated Wabash community – and the potential for a follow-up dose to potentially reduce that rate another 20-fold – I am hopeful that we will soon view COVID-19 the way that we do the many other viral diseases tamed by vaccination. In



the meantime, let me emphasize again that members of our community represent a range of risk profiles and we should continue to act in ways that support the most vulnerable among us.

