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BRIEF19

A daily review of covid-19 research and policy

RESEARCH BRIEFING

The downstream effect of vaccine hesitancy: outbreaks in nursing homes.

While many who choose to forgo the covid-19 vaccine assume they are only incurring a personal risk, the reality is that their decisions may be deadly ones for many other Americans. A report [this week](#) in the CDC's *Morbidity and Mortality Weekly Report* shows how covid-19 is still a major health problem, even in areas with high rates of vaccination. The result: deadly consequences. The highlighted investigation focused on a skilled nursing facility (SNF) in Kentucky that participated in a vaccination program to get the Pfizer/BioNTech mRNA vaccine between January and February. Despite this, the facility later suffered a significant outbreak.

Of the 83 residents at the facility, 75 (90 percent) were fully vaccinated. Of the 116 healthcare personnel (HCP), 61 (53 percent) had received vaccination. Though most of the residents at HCP received both inoculations in January, the outbreak occurred less than two weeks after a February vaccination opportunity. At that point, four residents and five HCP received their second doses. The first case was identified eight days after the February doses through an asymptomatic screening test of an HCP who had not been vaccinated. From there, things spiraled out of control. The resulting outbreak led to a total of 46 cases among 26 residents and 20 HCP. Among the infected residents, 18 had received the vaccine while only 4 cases occurred among vaccinated staff members. Unvaccinated residents had a three-fold greater infection rate compared to a rate 4 times higher for HCP. Alarmingly though, the infection rate among vaccinated residents was still 25 percent and 7 percent among HCP, which are high compared to figures from other studies which have found very low rates of infection among healthcare workers after vaccination. Apparently, vaccination lowers infection rates *en masse* but when an outbreak does occur, the vaccines do not iron-clad protection. There was one death among a vaccinated resident, and two among unvaccinated residents.

Meanwhile, vaccine efficacy against symptomatic covid-19 was still found to be 86.5 percent among the residents and 87.1 percent among the HCP. In addition, four reinfections were reported, including in one resident who was 300 days out from the previous infection. This person was unvaccinated, required hospitalization, and ultimately died covid-19. This was an unusual but alarming instance of reinfection leading to a death.

Despite almost all the residents being vaccinated, a large outbreak with fatal results still occurred due to a single unvaccinated HCP. This microcosm displays the implications of some people shirking vaccination, especially given the deadly consequences for those around them. Real world vaccine [efficacy](#) from this data are largely consistent with prior studies with respect to symptomatic covid-19. But these data also show that some people, especially those with multiple medical comorbidities, still carry some mortality risk after vaccination. Nevertheless those risks remain far higher among the unvaccinated.

—Christopher Sampson, MD, FACEP

POLICY BRIEFING

Biden administration moves to financially incentive vaccination.

One of the difficulties in reaching herd immunity via vaccination is finding the motivation to do so. Tying vaccination to freedom of movement can [exacerbate](#) societal divisions, especially given that not everyone has equal access. On the other hand, healthcare employers [mandating](#) vaccination makes sense, given that patients expect to be protected when

seeking medical care. But broader adoption of mandates seems unlikely, at least in the United States. The Biden Administration has instead [launched](#) a variety of societal programs aimed at outreach and fighting vaccine hesitancy and nudging those considering vaccination (i.e. “the movable middle”) in the right direction.

Now the administration has decided to wade into financial incentivization. Aimed at small businesses, a new [initiative](#) is a tax credit to cover sick leave for vaccination and potential days off from vaccine side effects. All businesses with fewer than five hundred employees are eligible. The effort is [funded](#) by the [American Rescue Plan](#), the \$1.9 trillion stimulus package passed last month, and is meant to lower or remove yet another barrier for vaccine holdouts. In his announcement of the program, President Biden encouraged large businesses to provide similar benefits and education to their employees. *Various.*

—*Brief19 Policy Team*

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