Influenza Vaccination Saves Lives

Ah, for the old times, when our biggest fear was seasonal flu. Roughly 80% of healthcare workers get vaccinated, more the docs and nurses, less the aides. Where it is required, the vaccination rate rises to 90%. Those not getting vaccinated are doing harm, as a new study shows.

The study looks at deaths attributed to pneumonia and influenza over 23 years, from 1995 to 2018. It looked at mortality for states with and without laws about healthcare workers vaccination and states before and after such legislation was passed. The mortality data is from the CDC’s National Vital Statistics; vaccination rates were obtained from the National Health Interview Survey and hospital workforce numbers. Vaccination rates in the general population came from national surveillance datasets.

The 14 states with vaccination laws were the test set; the remaining states acted as controls. This introduced a bit of fuzziness right away because the law’s requirements differed, and some hospital systems mandated vaccination irrespective of state laws. The primary analysis was restricted to 17 years when the vaccination was “well-matched” to the strains circulating. Finally, this being a retrospective study, there are no prospective matched controls, so the control arm is a useful but statistical fiction. Apply grains of salt as you feel necessary.

Results

- The proportion of healthcare workers subject to vaccination laws has risen from 2% in 1995
to 38% in 2017

- The proportion of healthcare workers being vaccinated has doubled over that same period to 87%. In the same timeframe, vaccination in the general public rose by only 5% - education and regulatory nudges can move behavior.

- States that instituted vaccination requirements had higher mortalities at the time of legislation than states that didn’t create these regulations. Bad health outcomes garner attention; whether this reflects “sensible” public health policy or “never let a good crisis go to waste,” is your belief about intention.

- Mortality trending downward for all states; the trend was greater in those states with vaccination regulations. The accelerated improvement coincided with the adoption of the laws.

- The effect was “modest,” a 2.5% further decrease in deaths, 1800 lives saved overall. Those lives saved were primarily “among the elderly (aged ≥65years)” [It is frightening to think of myself as elderly, but that is the definition in this instance.]

- The states with the most significant declines were states requiring vaccination or a valid reason to decline. States simply encouraging vaccination showed little improvement.

A few thoughts

It should come as no surprise that it was the elderly and frail best served by these regulations. They often have compromised immunity, which is why they are given stronger vaccines. The deaths from seasonal flu in this situation are remarkably similar to deaths among the elderly from COVID-19. For several reasons, inadequate training, lack of PPE, many of the deaths in nursing homes were the result of interactions with staff. The staff that far more frequently than the physicians and nurses refuse vaccination.

“Among 11,460 SNFs with at least one vaccination clinic conducted during the first month of the CDC Pharmacy Partnership for Long-Term Care Program, a median of 77.8% of residents and 37.5% of staff members received ≥1 vaccine dose through the program.”

CDC Data on COVID-19 vaccinations [2]

COVID-19 may capture the headlines, but the same problem, at a smaller scale, seems to occur with seasonal flu.

Offering vaccine to the hesitant is not a sufficient motivation for them to do the right thing. If you want to work in healthcare, then “do no harm” must be more than words. Increasingly, there is evidence that vaccination or other preventative measures by healthcare workers who interact the most with our at-risk populations is critical to saving lives. You have a right not to be vaccinated. You do not have a right to continue to care for these patients.

[1] CDC - Influenza Vaccination Information for Health Care Workers [3]

Source: Population Mortality and Laws Encouraging Influenza Vaccination for Hospital Workers
Source URL: https://www.acsh.org/news/2021/02/05/influenza-vaccination-saves-lives-15320

Links
[2] https://www.cdc.gov/mmwr/volumes/70/wr/mm7005e2.htm?s_cid=mm7005e2_w&utm_source=STAT+Newsletters_MR_COPY_14&utm_medium=email&utm_term=0_8cab1d7961-76ef486c05-149880241#F1_down