



## Reference of the Week

- Piliushvili T. Interim Estimates of Vaccine Effectiveness of Pfizer-BioNTech and Moderna COVID-19 Vaccines Among Health Care Personnel [HCP] — 33 U.S. Sites, January–March 2021. MMWR. 05.14.2021.  
<https://www.cdc.gov/mmwr/volumes/70/wr/mm7020e2.htm>  
**Premise/Methods:** **1.** HCP are at high risk for exposure to SARS-CoV-2 and, at least early in the pandemic, prone to infection when prevention was suboptimal leading to HCP receiving priority status for vaccination. **2.** A test-negative case-control study is underway to evaluate mRNA COVID-19 vaccine effectiveness (VE) against symptomatic illness among HCP at 33 U.S. sites across 25 U.S. states. **3.** Vaccine effectiveness was measured among cases and controls (1:3 ratio) after the first and second doses of an RNA vaccine with meticulous attention to the timing of testing and/or symptoms and the dates of vaccination. **4.** This is an interim analysis of RNA vaccine effectiveness among HCP.  
**Results:** **1.** 623 case-patients and 1,220 controls enrolled: median ages similar, 38 and 37 years respectively; 60% of cases and 64% of controls had substantial patient contact; 84% and 82% females respectively; and 12 (2%) case-patients and 10 (1%) controls had severe illness requiring hospitalization, and no deaths occurred in either group. **2.** Single dose vaccine efficacy was 82% and 2 dose vaccine efficacy was 94%. **3.** These interim results demonstrate that complete vaccination with authorized mRNA COVID-19 vaccines is highly effective in preventing symptomatic COVID-19 among HCP, supporting the results of phase III trials and additional accruing evidence in recent observational studies.

## Other References:

- Freeman D. Effects of different types of written vaccination information on COVID-19 vaccine hesitancy in the UK (OCEANSIII): a single-blind, parallel-group, randomized controlled trial. Lancet Public Health. 05.12.2021.  
[https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667\(21\)00096-7/fulltext](https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(21)00096-7/fulltext) pdf  
**Premise/Methods:** **1.** Generating herd immunity primary through vaccination requires persuasive messaging to underscore the benefit of vaccination to the individual and community. **2.** The optimal type of messaging to combat hesitancy is unclear. **3.** The question addressed in this study was whether there is specific content about COVID-19 vaccination, above a statement of safety and effectiveness, that might reduce hesitancy in the general population. **3.** This study tested the effects of short sections of text that addressed collective benefits of vaccination, personal benefits of vaccination, the seriousness of the virus, and the speed of development and testing of the vaccines. **4.** This UK, online, single-blind, parallel-group randomized controlled trial, with the intervention being ten information conditions stratified by three levels of vaccine hesitancy (willing, doubtful, strongly hesitant) and the control being standard public health messaging.  
**Results:** **1.** 16,455 individuals were assessed with 83% willing to be vaccinated, 7.6% doubtful, and 9.3% strongly hesitant. **2.** The brief information provided, above that of a simple statement of efficacy and safety, did not alter hesitancy levels in those who were willing to be vaccinated or were doubtful. **3.** Highlighting personal benefit was more effective than emphasizing collective benefit for those who were strongly hesitant. Furthermore, combining collective benefit with personal benefit was less effective messaging than personal benefit alone for those who are strongly vaccine hesitant. **4.** This study shows that brief, carefully crafted information can alter the willingness to be vaccinated for COVID-19 of those most strongly hesitant.
- Renoud L. Association of Facial Paralysis with mRNA COVID-19 Vaccines. JAMA Intern Med. 04.27.2021.  
<https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2779389>.  
<https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2779389> pdf  
**Premise/Methods:** **1.** During the phase 3 clinical trials of mRNA COVID-19 vaccines, several cases of facial paralysis were observed in the vaccine groups (7 of 35 654) compared with 1 case among people who received placebo (1 of 35 611). **2.** Using the World Health Organization pharmacovigilance database, VigiBase, this study aimed at determining if facial paralysis – vaccine events occur disproportionately compared with what would be expected in the absence of an association. **3.** Analysis was performed using two control groups – other viral vaccines and influenza vaccines – and two definitions of facial paralysis.  
**Results:** **1.** On March 9, 2021, among the 133 883 cases of adverse drug reactions in the World Health Organization pharmacovigilance database, a total of 844 (0.6%) facial paralysis-related events. **2.** Moreover, 5734 (0.5%) and 2087 (0.7%) cases of facial paralysis among the 1 265 182 cases of adverse drug reactions reported with other viral vaccines and the 314 980 cases reported with influenza vaccines, respectively. **3.** Facial paralysis was not found to be disproportionately associated with mRNA vaccines.



- McKeever A. India's crisis shows how oxygen is a vital medicine not everyone can access. National Geographic. 5.05.2021. [India's crisis shows how oxygen is a vital medicine not everyone can access \(nationalgeographic.com\)](https://www.nationalgeographic.com)  
**Message:** **1.** Oxygen is an essential medical treatment that saves lives: lives have been lost in India due to limited oxygen supplies; Brazil, Peru, Nigeria, Jordan, and Italy have experienced a similar fate; and New York City and California have had dangerously low supplies during COVID-19 peaks. **2.** COVID-19 has exposed the problem: the oxygen access gap causes an untold number of preventable deaths every year in low- and middle-income countries. **3.** Oxygen access is challenging: 1) low quality equipment, poor maintenance; 2) limited clinical and technical protocols including a lack of awareness of pulse oximetry; and 3) financing and managing oxygen related investment has been lacking. **4.** Depending on the setting oxygen storage varies: tanks of liquid oxygen; highly pressurized cylinders; oxygen concentrators and generators; battery/electricity driven solar oxygen concentrators. **5.** Solution: WHO COVID-19 Oxygen Emergency Taskforce: 1) bring attention to the crisis; 2) price out the oxygen needs of low and middle income countries; 3) link the needs to financing; and 4) drive down the cost of oxygen in resource poor areas.
- Walker M. Does a History of MIS-C Preclude COVID Vaccination? Medpage Today. 05.14.2021. [Does a History of MIS-C Preclude COVID Vaccination? | MedPage Today](https://www.medpagetoday.com)  
**CDC Q & A to Clinicians:** **1.** People with a history of MIS-C may choose to be vaccinated but consider delaying 90 days after the date of diagnosis and return of normal cardiac function. **2.** People with immunodeficiency syndromes should refer to the CDC website for guidance regarding COVID-19 vaccination ([Interim Clinical Considerations for Use of COVID-19 Vaccines | CDC](https://www.cdc.gov)). **3.** COVID-19 vaccines and other vaccines may be administered simultaneously or can be co-administered within 14 days. **4.** CDC staff also reiterated that the Pfizer/BioNTech vaccine dose is the same for adolescents as adults (two intramuscular injections, delivered 3 weeks apart), and is not a "weight-based dose." **5.** The fully vaccinated must wear masks on public transportation, healthcare facilities, prisons, and homeless shelters. **6.** If COVID occurs between the first and second dose of a vaccine, wait until full recovery occurs and then obtain the second shot.

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