

Is the vaccine for COVID-19 a white knight for employers?

Will the emerging vaccines lead to a return to normalcy for employers after months of shutdowns due to the COVID-19 pandemic?

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Vaccines with approval from the FDA may lead to a return to normal life for millions worldwide. In this article, we present considerations for employers as these new vaccines are made available.

On December 11, 2020, the U.S. Food and Drug Administration (FDA) granted emergency approval for the Pfizer COVID-19 vaccine and approval of the Moderna vaccine followed shortly. Back on November 9, 2020, Pfizer and BioNTech announced a successful Phase 3 study of a vaccine against COVID-19, with an efficacy of over 90%.¹ Days later, Moderna made a similar announcement with the development of a vaccine having an efficacy of nearly 95%.² These breakthrough announcements were met with a renewed hope that life will soon return to pre-pandemic normalcy.

Employer-specific concerns

Employers have become increasingly anxious to see a return to normal business practices after months of disruption due to COVID-19.³ The vaccines offer hope that businesses will be able to prepare to roll out plans to return to pre-pandemic practices in the near future. Employers will need to address several issues in order to facilitate safe and efficient returns to standard business practices.

EMPLOYER POLICIES AND VACCINES

One of the chief concerns facing employers is workplace safety. Employers will need to think about how they can provide safe workplaces for their employees, how they will generate confidence in creating them, and their approach to handling vaccinations of employees. Many employers will see the need to encourage employees and their dependents to receive vaccinations. Employers will need to decide whether to mandate vaccination as a condition of employment for all employees or just a subset, such as essential workers. If they elect to require their employees to be vaccinated, employers will need to consider whether they want to facilitate vaccinations. For

example, an employer might provide an on-site clinic for vaccinations or paid time off (PTO) to allow employees to go offsite to receive vaccinations. They might offer PTO following vaccinations to help combat employees' concerns about post-vaccine transmission. Any effort to require employee vaccinations will need to be supported by strong employee communications and may necessitate participation incentives. If an employer is considering mandating vaccination before employees return to work, it should carefully consider the legal implications prior to implementing the mandate.

With uncertainty about the long-term efficacy of the vaccines,⁴ employers may also need to address the following if an employee contracts the virus after being vaccinated:

- Heightened social distancing, e.g., renewed work-from-home assignments
- Contact tracing

Employers will need to develop a strong employee communication strategy. This will be fundamental to creating and maintaining safe and effective working environments as workplace practices return to pre-pandemic norms.

Some employers will need to communicate employee vaccination standards to their customers. They may also need to receive vaccination information from their customers. How this is communicated while maintaining HIPAA compliance will be another challenge for many employers.

ADMINISTRATION

Employers are also faced with how to help their employees receive vaccinations. One possibility is to offer them on-site. The COVID-19 vaccine distribution process is far more complicated than prior influenza (flu)-type vaccines, and vendors cannot simply replicate their prior flu vaccine campaigns; much more must be taken into consideration. These complications include cost, storage of the vaccine, and preparation of an appropriate environment. If employers can develop programs similar to on-site flu vaccinations, they would then need to determine whether they will offer on-site vaccines to employee dependents.

If employers can successfully set up or leverage existing on-site delivery programs (e.g., on-site flu vaccine delivery), they will be able to drive higher vaccine take-up rates, in particular helping to ensure that second-dose requirements are met. This will help protect employers' investments in the vaccination of their employees.

Employers may also consider staggering the workforce receiving the vaccine—especially the second dose where a small but notable percentage of vaccine recipients reported side effects that last as much as a day. Staggering the timing of vaccination for workforce recipients and targeting higher-risk or more essential business units may minimize the disruption of an employer's operations.

Hurdles to getting employees back to work

As employers think through these considerations (though they are likely to have already determined benefits strategies for the upcoming year), it will be important for them to be able to adjust as the COVID-19 vaccine is made available more broadly. There are still hurdles that need to be overcome as we all look for the hopeful end of the pandemic.

VACCINE EFFICACY

The efficacy of the vaccines themselves will present challenges for employers trying to return to “normal.”⁵ As our colleagues illustrated in an earlier article,⁶ vaccine efficacy and the proportion of a population that must demonstrate immunity to an infectious agent for it to no longer be the cause of large outbreaks are negatively associated: as vaccine effectiveness increases, the proportion decreases. Furthermore, while initial studies of the Pfizer and Moderna vaccines suggest reason for optimism with high levels of efficacy, the long-term effectiveness will only be known with time. Employers will also need to closely monitor emerging research on the vaccines' ability to prevent virus transmittal from vaccinated parties to nonvaccinated parties⁷ and the length of time that the vaccines will protect a vaccinated individual against potentially re-contracting the virus.^{8,9}

EMPLOYEE TAKE-UP RATE

The next greatest single hurdle for employers will be their ability to encourage or mandate employees to receive the vaccine. In November, nearly 40% of respondents to a Pew Research Center survey reported that they probably would not or definitely would not receive a vaccine.¹⁰ Though such a rate may permit reaching adequate coverage such that large outbreaks no longer occur, it may be impacted by revised estimates of vaccine effectiveness over time.¹¹

Some of the contributing factors to concerns over taking the vaccine include:

- Side effects from the vaccine
- Perception of vaccines being rushed
- Need for regular periodic vaccinations in the future
- General resistance to vaccines

Side effects from the vaccine

Pfizer and Moderna have reported that their vaccines could cause side effects similar to a mild case of COVID-19, including headaches, muscle pain, and chills.¹² Dr. Sandra Fryhofer, a health professional with the American Medical Association (AMA), warned that receiving the vaccine was “not going to be a walk in the park.”¹³ Up to 15% of patients could have really noticeable side effects.¹⁴ One trial participant opined that “people are going to have to toughen up. The first dose is no big deal. And then the second dose will definitely put you down for the day for sure. You will need to take a day off after the second dose.”¹⁵

Perception of vaccines being rushed

Ample historical precedence of rushed vaccines exists.¹⁶ Cases have included:

- Vaccines accidentally including live viruses leading to infections and outbreak
- Cross-contamination with other viruses
- Improperly vetted vaccinations, which led to side effects that included neurological disorders

Of those Americans who have expressed reservations about receiving a vaccine, 37% reported the rushed timeline of the vaccine as their primary reason for not feeling comfortable with receiving a vaccine.¹⁷

Despite these concerns, there have been efforts by prominent figures who have expressed their willingness to receive the vaccine to try and help encourage others to receive it.¹⁸

Need for regular periodic vaccinations in the future

Both the Pfizer and Moderna vaccines require two doses to provide immunity. The AMA's Dr. Fryhofer expressed concern that patients might not return for the second dose because of potentially unpleasant side effects they may have experienced after receiving the first dose.¹⁹ If the vaccines provide immunity for a limited length of time, greater concerns will arise about maintaining future public immunity thresholds with the need for subsequent vaccine treatments.

General resistance to vaccines

A growing number of individuals on both ends of the political spectrum are expressing concerns about vaccines in general.^{20,21} This could lead to greater challenges for employers getting their employees vaccinated.

DELIVERY AND ACCESS RESTRICTIONS

Availability

Vaccines have already begun to be administered to healthcare workers and aggressive estimates suggest vaccines could be available to the general population by April 2021.

Storage and shipment

Issues around storing the vaccine during and after shipment will need to be addressed. The Pfizer vaccine must be initially stored at -70° Celsius.²² The Moderna vaccine must be initially stored at -20° Celsius.²³ These storage requirements have led to concerns about the dry ice supply necessary during shipping and initial storage.²⁴ Shippers are also working to meet the necessary requirements for shipping such vast amounts of the vaccine under the cold storage restrictions.²⁵

Rural delivery

As more employees are working remotely than in the past, employers will need to consider the location of their employees. Employees in more rural areas may have more difficulty in getting access to the vaccine. These areas have significantly less access to healthcare professionals, individuals may have to travel to receive treatment, and they will face unique barriers for supplies being delivered.²⁶

Wrapping it up

There are still many questions that employers face as they consider how to best support employees during the pandemic. Rising to the forefront of these questions are those related to the vaccine. It will be important for employers to consider and understand these key factors:

- Considering how policies will affect the vaccinations rate
- Planning how to best facilitate administration of the vaccine to employees

These are going to be important considerations that will not only impact the health of their employees but will affect their overall businesses.

Current health and welfare benefit strategies may not take into account some of these unique circumstances and employers should carefully consider not only the immediate effects of facilitating vaccination for employees but also the long-term strategic impact these changes may have on their health and welfare benefits.



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ENDNOTES

- ¹ Pfizer (November 9, 2020). Pfizer and Biontech announce vaccine candidate against COVID-19 achieved success in first interim analysis from Phase 3 study. Press release. Retrieved December 23, 2020, from <https://www.pfizer.com/news/press-release/press-release-detail/pfizer-and-biontech-announce-vaccine-candidate-against>.
- ² Moderna (November 16, 2020). Moderna's COVID-19 vaccine candidate meets its primary efficacy endpoint in the first interim analysis of the Phase 3 COVE study. Press release. Retrieved December 23, 2020, from <https://investors.modernatx.com/news-releases/news-release-details/modernas-covid-19-vaccine-candidate-meets-its-primary-efficacy>.
- ³ Gryta, T. (December 4, 2020). The Covid crisis taught David Farr the power and limits of leadership. Wall Street Journal. Retrieved December 23, 2020, from <https://www.wsj.com/articles/the-covid-crisis-taught-david-farr-the-power-and-limits-of-leadership-11607094974>.
- ⁴ Russo, E., Williams, D.V., & Cohen, J.R. (November 2020). A New Horizon for COVID-19: Vaccination and Herd Immunity. Milliman Brief. Retrieved December 23, 2020, from <https://www.milliman.com/en/insight/a-new-horizon-for-covid19-vaccination-and-herd-immunity>.
- ⁵ Ibid.
- ⁶ Ibid.
- ⁷ Mandavilli, A. (December 9, 2020). Here's why vaccinated people still need to wear a mask. New York Times. Retrieved December 23, 2020, from <https://www.nytimes.com/2020/12/08/health/covid-vaccine-mask.html>.
- ⁸ CDC. Frequently Asked Questions About COVID-19 Vaccination. Retrieved December 23, 2020, from <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/faq.html>.
- ⁹ Foley, K.E. (December 8, 2020). How long will Covid-19 vaccines protect you from infection? Quartz. Retrieved December 23, 2020, from <https://qz.com/1943301/how-long-will-covid-19-vaccines-protect-you-from-infection/>.
- ¹⁰ Funk, C. & Tyson, A. (December 3, 2020). Intent to get a COVID-19 vaccine rises to 60% as confidence in research and development process increases. Pew Research Center. Retrieved December 23, 2020, from <https://www.pewresearch.org/science/2020/12/03/intent-to-get-a-covid-19-vaccine-rises-to-60-as-confidence-in-research-and-development-process-increases/>.
- ¹¹ Milliman Brief, op cit.
- ¹² Lovelace Jr., B. (December 1, 2020). Trump Covid vaccine czar says side effects "significantly noticeable" in 10% to 15% of recipients. CNBC. Retrieved December 23, 2020, from <https://www.cnbc.com/2020/12/01/trump-covid-vaccine-czar-says-side-effects-significantly-noticeable-in-10percent-to-15percent-of-recipients.html>.
- ¹³ WRCB TV News (November 24, 2020). Doctors say CDC should warn people that side effects from COVID-19 vaccines won't be "a walk in the park." Retrieved December 23, 2020, from <https://www.wrcbtv.com/story/42958388/doctors-say-cdc-should-warn-people-that-side-effects-from-covid19-vaccines-wont-be-a-walk-in-the-park>.
- ¹⁴ Frelick, M. (December 7, 2020). COVID-19 vaccine has potential side effects, nurse volunteer says. Medscape. Retrieved December 23, 2020, from <https://www.medscape.com/viewarticle/942133>.
- ¹⁵ WRCB TV News, op cit.
- ¹⁶ Christensen, J. (September 1, 2020). Past vaccine disasters show why rushing a coronavirus vaccine now would be "colossally stupid." CNN. Retrieved December 23, 2020, from <https://www.cnn.com/2020/09/01/health/eua-coronavirus-vaccine-history/index.html>.
- ¹⁷ Reinhard, R.J. (November 17, 2020). More Americans now willing to get COVID-19 vaccine. Gallup. Retrieved December 23, 2020, from <https://news.gallup.com/poll/325208/americans-willing-covid-vaccine.aspx>.
- ¹⁸ Gangel, J. & Erdman, S.L. (December 3, 2020). Former Presidents Obama, Bush, and Clinton volunteer to get coronavirus vaccine publicly to prove it's safe. CNN. Retrieved December 23, 2020, from <https://www.cnn.com/2020/12/02/politics/obama-vaccine/index.html>.
- ¹⁹ WRCB TV News, op cit.
- ²⁰ Calandrillo, S.P. (2004). Vanishing vaccinations: Why are so many Americans opting out of vaccinating their children? Univ Mich J Law Reform. Retrieved December 23, 2020, from <https://pubmed.ncbi.nlm.nih.gov/15568260/>.
- ²¹ The Conversation (August 23, 2017). Anti-vaccination beliefs don't follow the usual political polarization. Retrieved December 23, 2020, from <https://theconversation.com/anti-vaccination-beliefs-dont-follow-the-usual-political-polarization-81001>.
- ²² Pfizer (November 20, 2020). COVID-19 Vaccine U.S. Distribution Fact Sheet. Retrieved December 23, 2020, from https://www.pfizer.com/news/hot-topics/covid_19_vaccine_u_s_distribution_fact_sheet.
- ²³ Kelly, S. et al. (December 9, 2020). Crimped U.S. dry ice supply complicates rural U.S. vaccine release. U.S. News & World Report. Retrieved December 23, 2020, from <https://www.usnews.com/news/top-news/articles/2020-12-09/crimped-us-dry-ice-supply-complicates-rural-us-vaccine-release>.
- ²⁴ Ibid.
- ²⁵ Weintraub, A. (November 19, 2020). When will COVID-19 vaccines be widely available? Feds lay out an ambitious timeline. Fierce Pharma. Retrieved December 23, 2020, from <https://www.fiercepharma.com/pharma/when-will-covid-vaccines-be-widely-available-feds-lay-out-ambitious-timeline>.
- ²⁶ Kelly, S. et al., op cit.