



## Coronavirus Update

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# The Impact and Cost of COVID-19 Vaccinations

## COVID-19 vaccinations have helped to drastically reduce daily positive cases in the U.S.

When the first COVID-19 vaccinations became available to Americans in mid-December of 2020, hopes were high that they would represent the turning point in our battle against the Coronavirus pandemic. At that point, daily positive COVID-19 cases in America were at their highest to date and would continue to climb until early January, when they reached more than 240,000 positive cases a day[1]. With vaccines steadily being administered to more and more of the American population, the positive case count has plummeted to just over 60,000 a day, marking a roughly 75% drop in infections, as shown below.

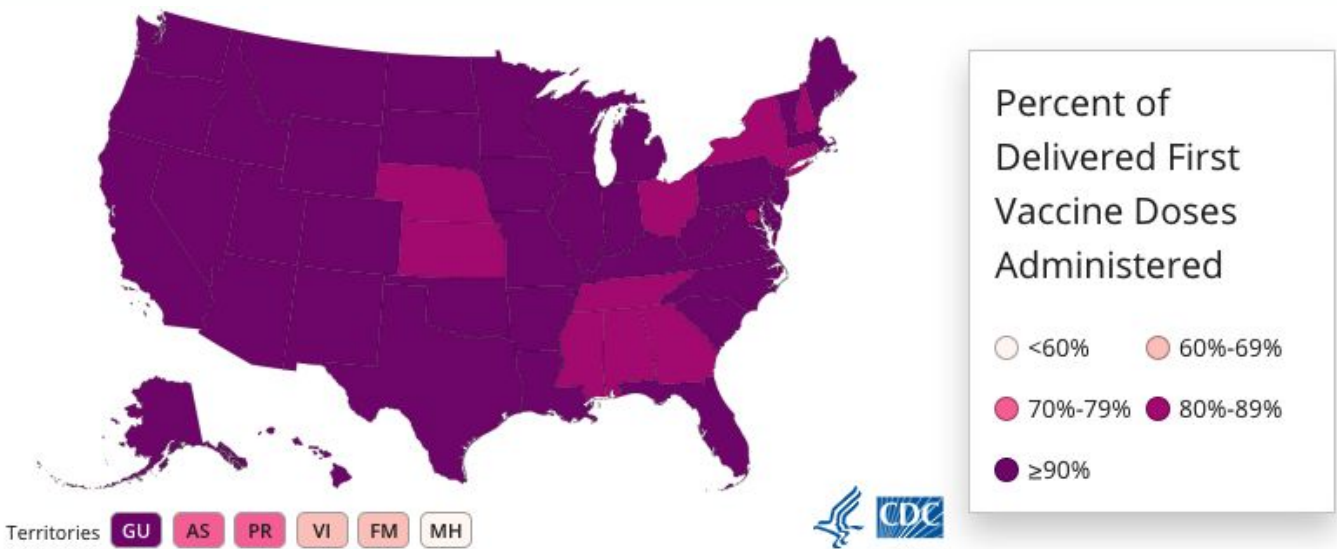


[1] Data from The COVID Tracking Project (<https://covidtracking.com/>)

# Increased delivery and better administration of the vaccine will save thousands of lives.

The expedient delivery and administration of the COVID-19 vaccinations has been critical in the fight against the pandemic. Operation Warp Speed[2] has taken unprecedented steps, coordinating government entities with private industries to ensure that the process takes place as quickly as possible. In the two and half months since the first vaccinations were made available to the public, 80% of delivered doses have been administered.[3] This rate has allowed 20% of the population over the age of 18 to receive at least one dose of the vaccine.[4]

People Vaccinated	1 or more Doses	2 Doses
Total	50,732,997	25,477,405
% of Total Population	15.3%	7.7%
Population ≥ 18 Years of Age	50,688,624	25,450,394
% of Population ≥ 18 Years of Age	19.9%	10%





[2] <https://www.defense.gov/Explore/Spotlight/Coronavirus/Operation-Warp-Speed/>  
[3] <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/distributing/first-doses.html>  
[4] <https://covid.cdc.gov/covid-data-tracker/#vaccinations>




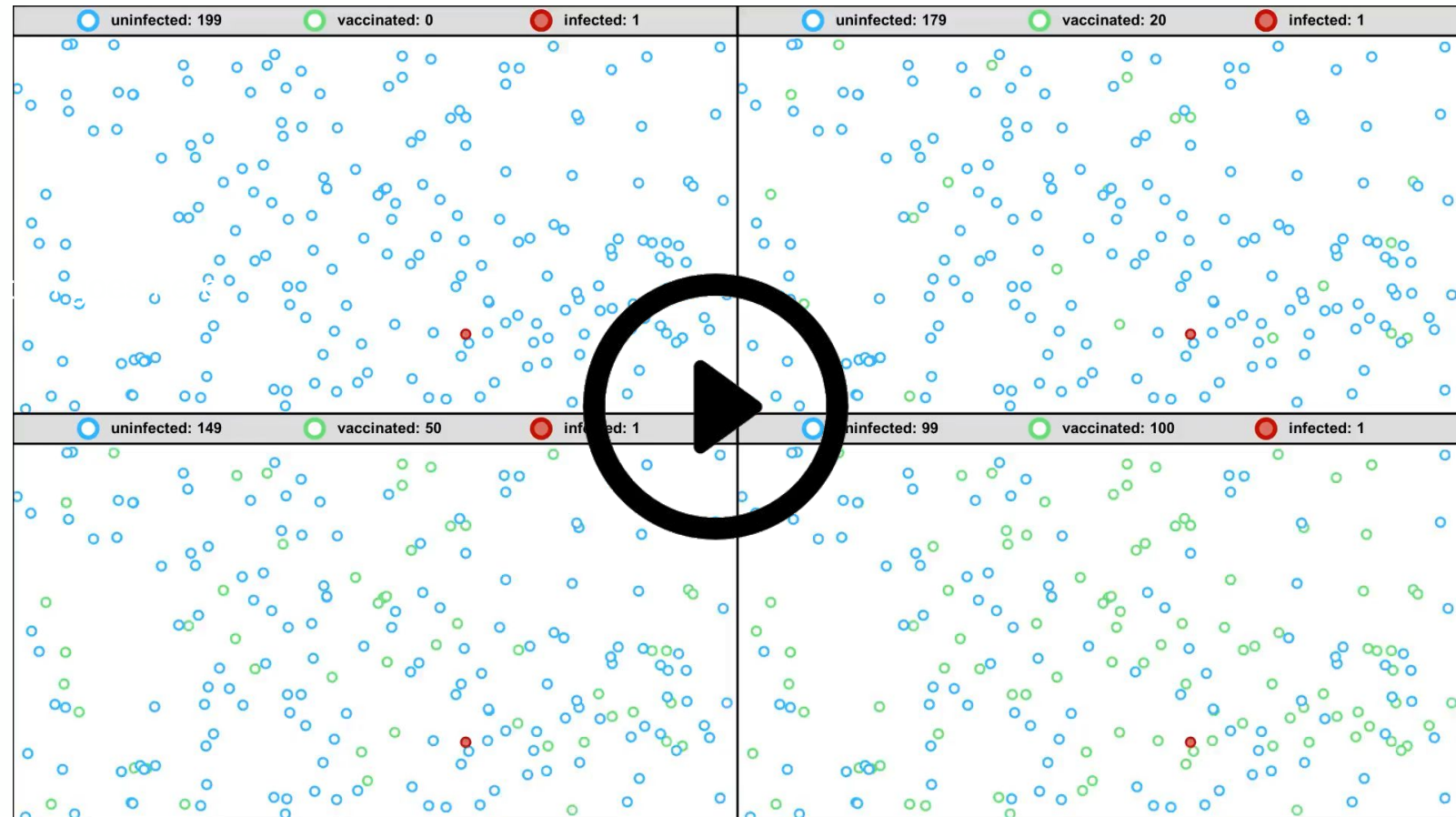
## Vaccinations are effectively reducing the spread of COVID-19 in the U.S.

While social distancing and masks have been the main tools to limit the spread of COVID-19 and “flatten the curve,” highly effective (90%+)[5] vaccines have changed the dynamics entirely. By delivering the available vaccines to the most vulnerable populations at an accelerated rate, the United States has been able to drastically reduce the spread of the virus. The animated visualization below shows how vaccinating even a small portion of a population can significantly slow the spread of a virus. These effects multiply as the percentage of the population that has been vaccinated continues to increase.

 These circles represent individuals that have never been infected with COVID-19 and are **not** vaccinated. As they encounter infected people, they can become infected.

 These circles represent individuals that have been vaccinated. When encountered by an infected person, they will become infected only 10% of the time.

 These circles represent individuals that have been infected with COVID-19. For the purposes of demonstration, we assume an infection rate ( $R_0$ ) of 3.0. This means they will infect, on average, up to 3 other individuals.

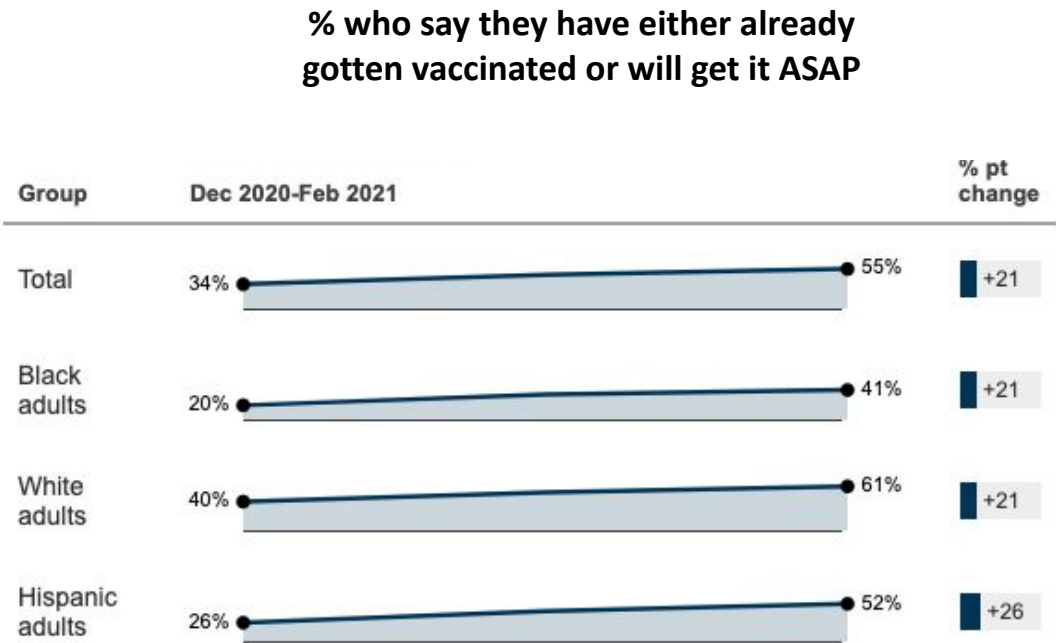
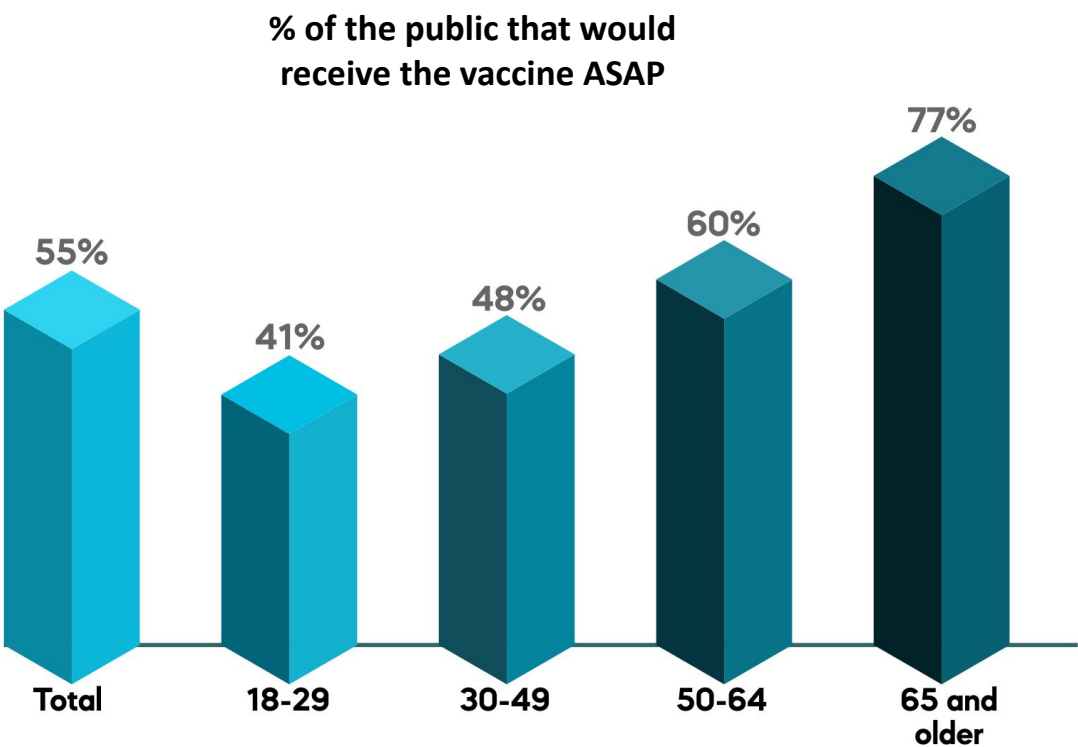


Click image above for animated map

[5] - <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/different-vaccines.html>

# While still a concern, public attitude towards receiving the vaccination is gaining acceptance.

While the three vaccinations currently approved by the Emergency Use Act[6] are touting an incredible 90% or greater effectiveness, some still have reservations about receiving them. While these concerns are understandable, they have a negative impact on the battle against COVID-19. Statistics from the Kaiser Family Foundation show that only 55% of people in the United States want to receive a vaccine as soon as possible. That said, the trends are positive. Since December 2020, the percentage of people who would receive a vaccine as soon as possible has nearly doubled, climbing from roughly 30% to 55%.[7]

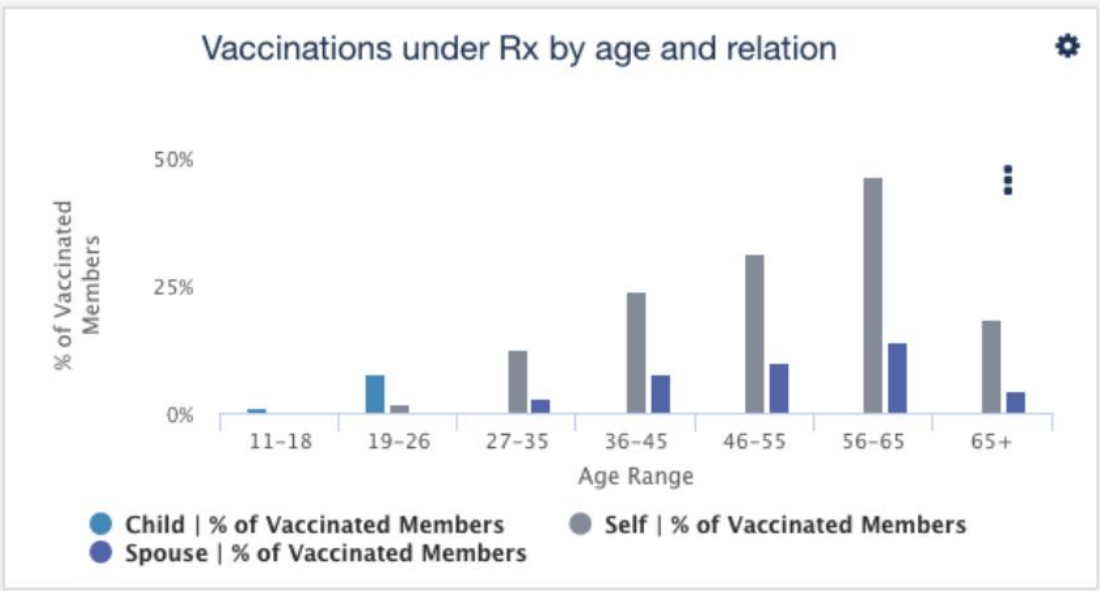
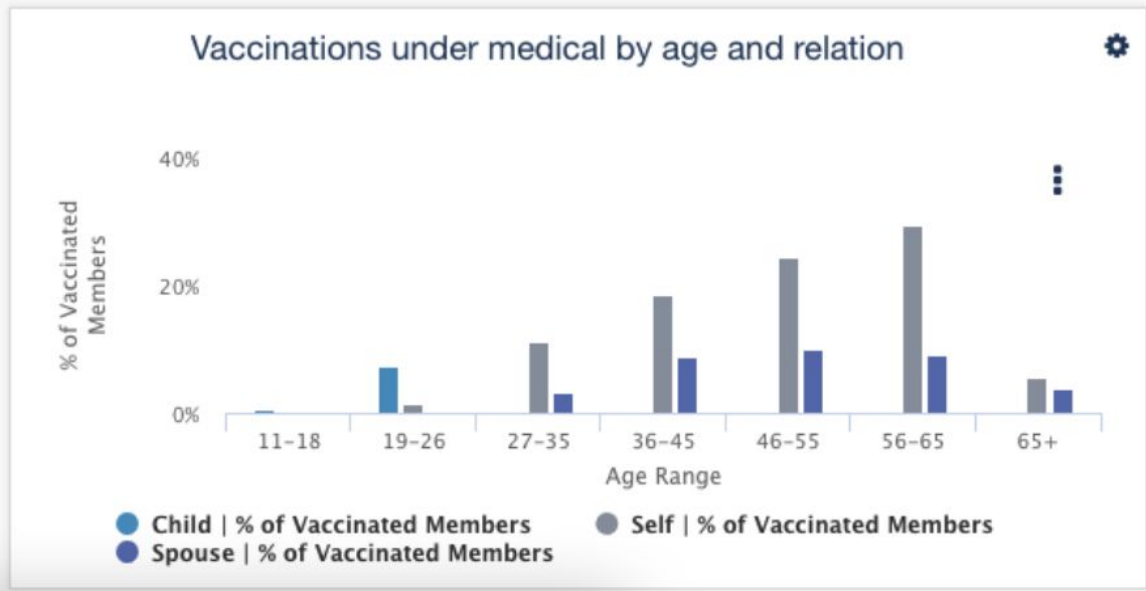


[6] <https://www.fda.gov/vaccines-blood-biologics/vaccines/emergency-use-authorization-vaccines-explained>

[7] <https://www.kff.org/coronavirus-covid-19/dashboard/kff-covid-19-vaccine-monitor-dashboard>

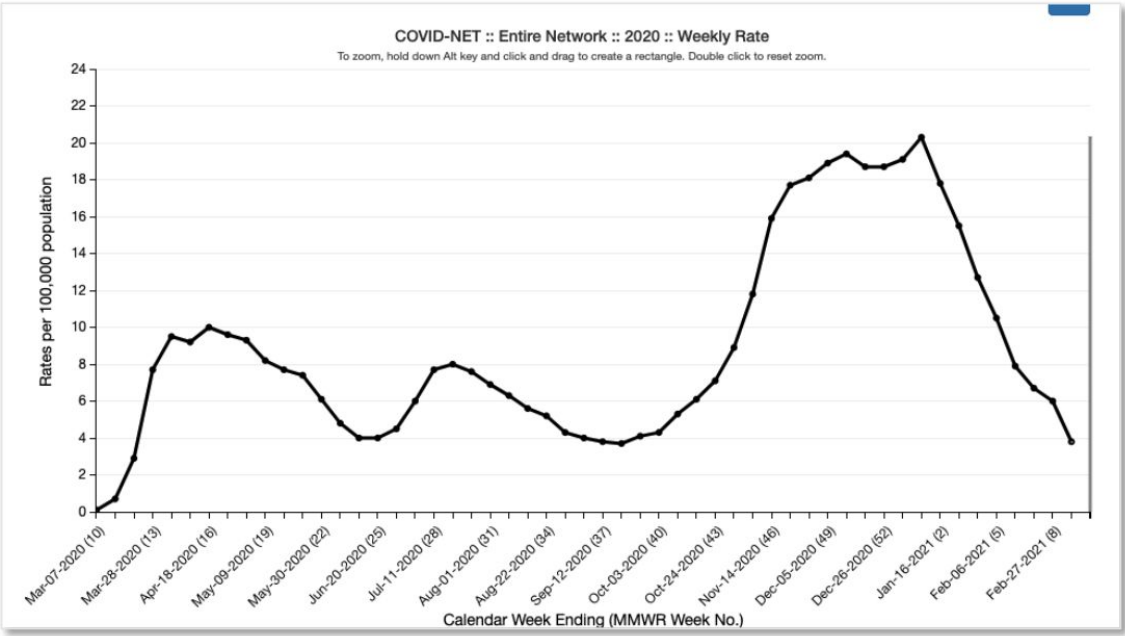
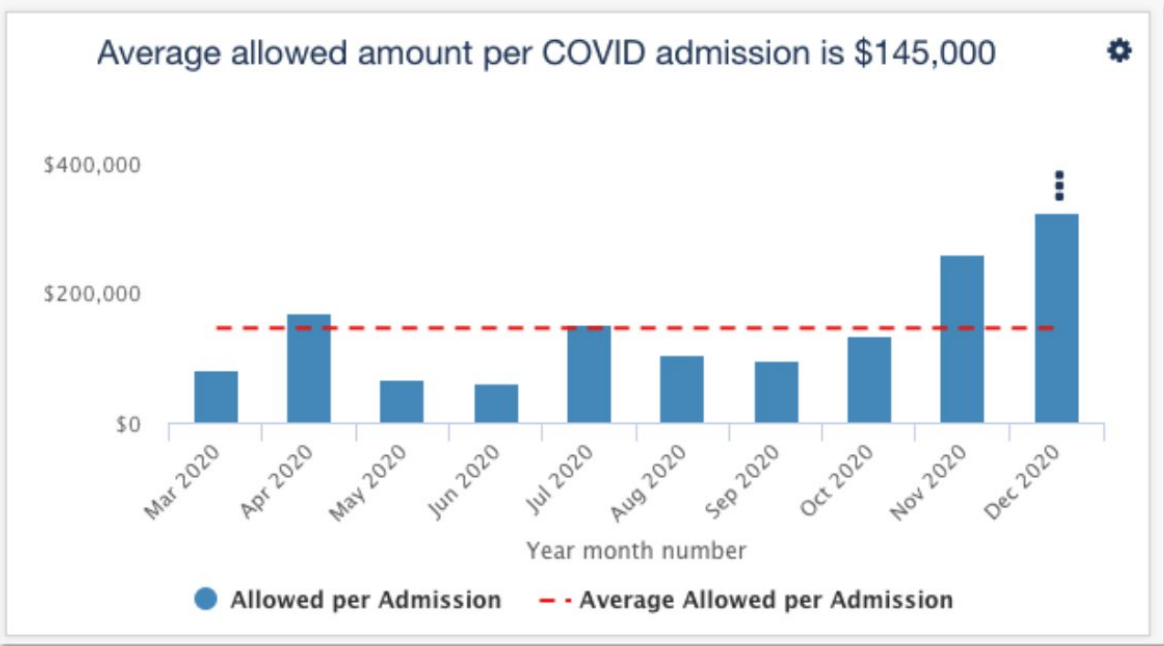
## Vaccine distribution has successfully focused on the most vulnerable populations.

In order to maximize the impact of vaccines in reducing hospitalizations and deaths due to COVID-19, distribution has focused largely on the elderly. Through Innovu’s employer data, we see that their members vaccine distribution follows along this trend. As most working populations are below the initial “most vulnerable” demographic of 65+ years of age, we see a lower percentage administered to those groups.



# Medical costs for COVID-19 treatment rise and fall with the infection rate.

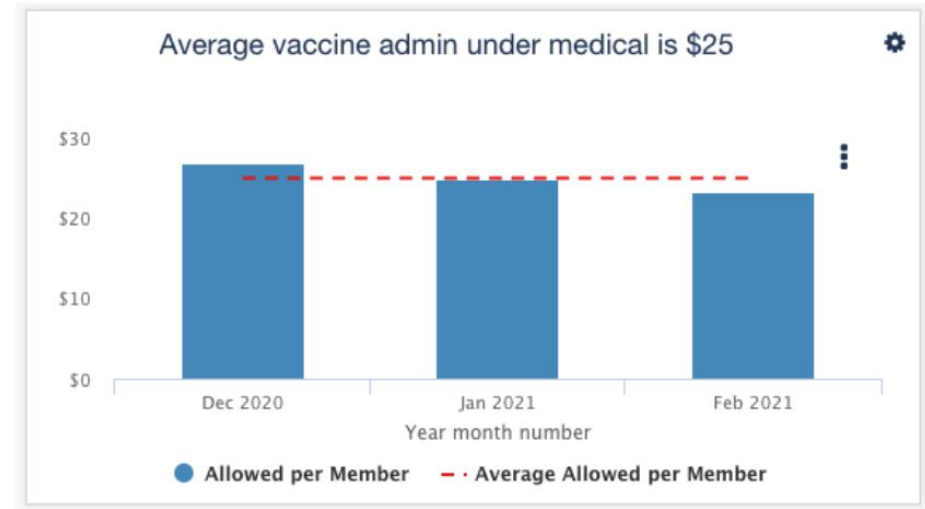
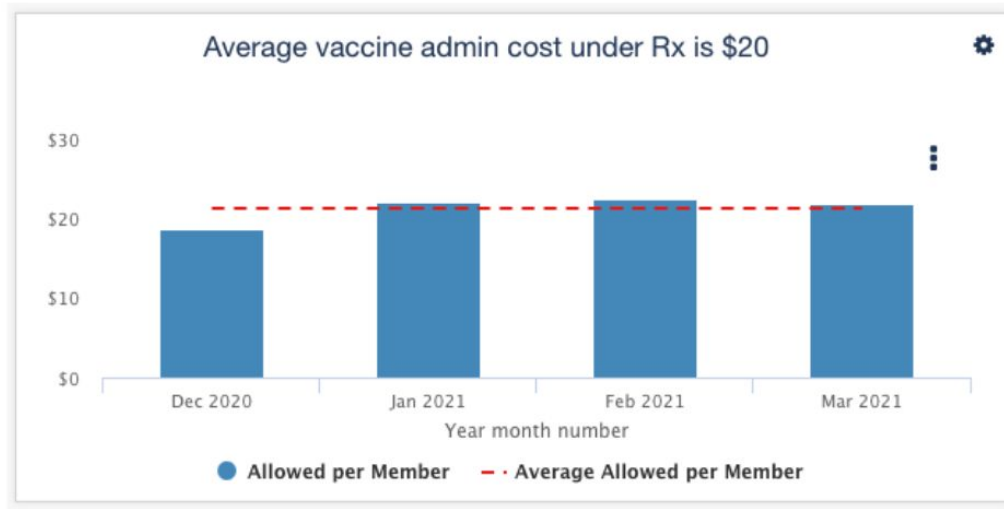
Over the past year, the average amount per COVID-19 admission has been roughly \$145,000, based on Innovu’s data. However, that amount appears to be contingent on the virus’s current rate of reproduction. The chart below shows that the cost per admission changes, increasing and decreasing, in step with the spread of the virus{8}. The highest COVID-19 infection numbers were seen in January 2021 and have dropped dramatically since, largely due to the vaccines. Innovu expects that as admissions data is analyzed in the coming months, a similar downward trend in costs will be observed through the first quarter of the year.



[8] [https://gis.cdc.gov/grasp/COVIDNet/COVID19\\_3.html](https://gis.cdc.gov/grasp/COVIDNet/COVID19_3.html)

## COVID-19 vaccines are covered by the government, but administrative fees are not.

The federal government is covering the cost of all COVID-19 vaccines, but providers can still charge employers administration fees.[9] Innovu's data shows that administration costs average about \$20 per member under Rx, and are slightly higher, at \$25 per member, under medical. Additionally, Medicare vaccine shot payments are \$26.94 for the first shot, \$28.39 for the second; or \$28.39 for single dose. These administrative costs can be unexpected for employers, given that in many cases they exceed the cost of the vaccine itself. In fact, insurance is not required to receive the vaccine. As of March 15th, 2021 Medicare now pays \$40 per COVID-19 shot. (\$80 for 2-doses). Innovu expects that commercial carriers will increase the costs for the shot to mirror Medicare reimbursements.



Vendor	Price per Dose	# of Doses Needed
Pfizer	\$19.50	2
Moderna	\$25 - \$37	2
Johnson & Johnson	\$10	1

[9] <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/faq.html#:~:text=The%20federal%20government%20is%20providing,vaccine%20administration%20fee.%E2%80%8B>



## Summary

- ✓ The Pfizer, Moderna, and Johnson & Johnson vaccines have had a tremendous impact in limiting the spread of COVID-19.
- ✓ Vaccine distribution have successfully been administered to the most vulnerable populations. helping to reduce overall hospitalizations and deaths.
- ✓ Cost of treatment has been rising and falling with the overall COVID-19 infection rate.
- ✓ While the federal government is covering the cost of the vaccine for the entire population, this does not cover administration costs that can be billed by providers.



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