

NEJM Study Finds 2024–2025 Covid-19 Vaccine Still Protects Against Severe Disease and Death in U.S. Veterans

A new study in *The New England Journal of Medicine* has found that the updated 2024–2025 Covid-19 vaccine continues to provide measurable protection against severe outcomes, including hospitalization and death, even as the virus evolves and immunity from past infections rises.

Researchers from the U.S. Department of Veterans Affairs (VA) analyzed electronic health records from veterans across the country to find out whether the latest Covid-19 vaccine still makes a meaningful difference today, when most people already have some immunity, and interest in vaccination has declined.

In 2020, the world saw one of the fastest vaccine developments in history, with early Covid-19 vaccines showing about 95 percent protection against infection and near-complete protection from severe disease.

But over the years, the virus has mutated, and people have gained immunity through repeated infections and vaccinations. As a result, the illness has become milder, and public enthusiasm for annual Covid boosters has dropped sharply.

By the end of 2024, Covid-19 vaccination coverage among U.S. adults had fallen to about **twenty-one** percent, the lowest since the vaccines were introduced, while coverage for the 2024–2025 seasonal influenza vaccine was approximately **forty-two** percent.

This raised a key public health question: **Do the updated Covid-19 vaccines continue to provide meaningful protection?**

To answer that, researchers used the VA's national electronic health database. They studied more than **296,000 veterans** who received the seasonal influenza vaccine between September and December 2024.

Of these, **164,000** received both the influenza and 2024–2025 Covid-19 vaccines on the same day, while **132,000** received only the influenza vaccine. All participants were followed for **six months**, until June 2025.

The study focused on three key outcomes:

1. Covid-19-associated emergency department (ED) visits
2. Covid-19-associated hospitalizations
3. Covid-19-associated deaths

These outcomes were validated using the VA's health records.

By the end of six months, people who received the Covid-19 vaccine in addition to the influenza vaccine had **significantly fewer Covid-related complications**:

- **Twenty-nine percent** fewer emergency department visits
- **Thirty-nine percent** fewer hospitalizations
- **Sixty-four percent** fewer deaths

In absolute terms, the vaccine prevented about 18 ED visits, 7 hospitalizations, and 2 deaths per 10,000 vaccinated individuals.

Protection was consistent across all age groups—under 65, between 65 and 75, and over 75 years, and among people with and without major health conditions such as cardiovascular disease, cerebrovascular disease, chronic kidney disease, or chronic lung disease. Even those who were immunocompromised seemed to benefit.

Despite reduced public concern about Covid-19, the study shows that vaccination still matters.

While the overall number of severe cases has gone down compared with the early pandemic years, the new Covid-19 vaccine continues to reduce the risk of serious outcomes, including death.

The researchers note that vaccine protection wanes modestly over six months, highlighting the need for timely boosters, especially for older adults and those with chronic illnesses.

The study also discusses why many people skipped the vaccine. Possible reasons include:

- Lower perceived Covid risk
- Concerns about vaccine-related adverse events
- Hesitation toward mRNA vaccines
- Limited workplace requirements
- Misinformation
- Low trust in health systems and authorities

These factors combined to keep Covid-19 vaccine coverage at nearly half that of the influenza vaccine, even though both are recommended by the U.S. Centers for Disease Control and Prevention for everyone six months and older.

The Takeaway

In a time when Covid-19 illness is generally milder and public enthusiasm for vaccines has declined, the *NEJM* analysis provides reassuring real-world evidence: the 2024–2025 Covid-19 vaccine continues to prevent hospitalizations and save lives.

While the individual benefit may seem modest, the collective effect across millions of people can be significant.

The findings serve as a reminder to both clinicians and the public that vaccination remains a safe and practical way to protect vulnerable adults and ease the strain on hospitals during seasonal surges.

Study Strengths and Limitations

This was an observational study, so it shows an association rather than direct causation. Most participants were older White men, which may limit how well the findings apply to other populations. However, the researchers adjusted for numerous health variables and used robust statistical methods to minimize bias. Comparing participants who received both the influenza and Covid-19 vaccines

with those who received only the influenza vaccine strengthened the reliability of the results.

Journal Reference:

Xie Y. et al. Effectiveness of the 2024–2025 Covid-19 Vaccine in U.S. Veterans. The New England Journal of Medicine. 2025;392(12):1134–1144.