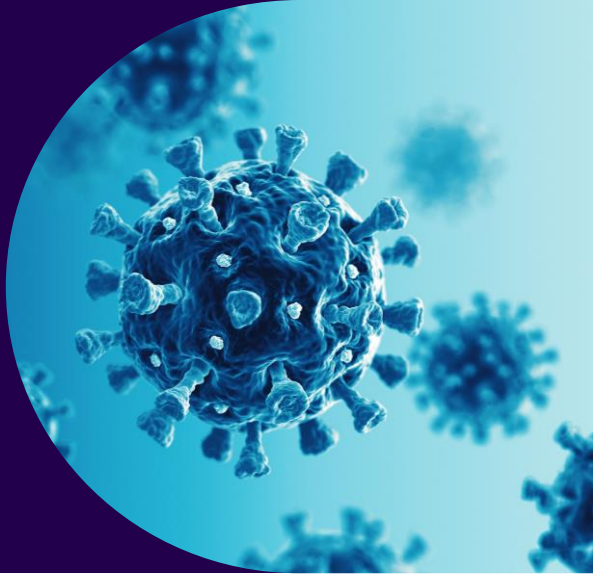
Evolving from pandemic to biphasic: COVID-19 vaccination to address unmet disease burden



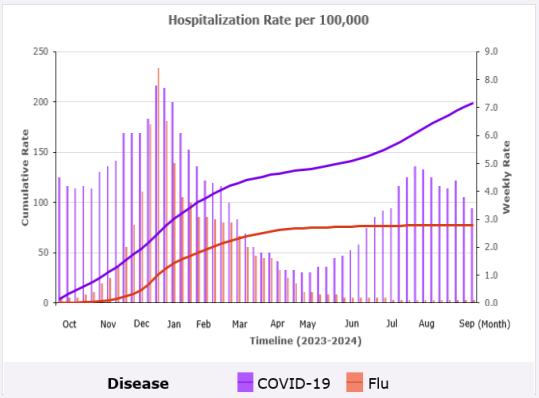
COVID-19 vaccines were developed following the emergence of SARS-CoV-2, effectively mitigating lockdown measures, saving almost 20 million lives in the first year alone, and allowing normalcy to return[1,2]

COVID-19 is now a disease with year-round transmission. Public concern has declined post-pandemic, and the perceived benefits of vaccination have diminished. Despite alarming disease burden, particularly in older adults, vaccination rates remain inexplicably low[3,4,5]

Adults face a ~4-fold higher risk of hospitalization due to COVID-19 than influenza[6], but despite the alarming disease burden, COVID-19 vaccination rates remain approximately half those for influenza

Post-pandemic, current situation

Figure 1: Weekly and cumulative rates of hospitalization due to COVID-19 and Influenza, 2023-2024 season[6]



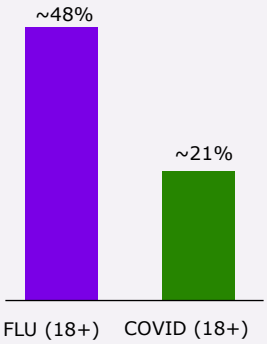
Risk of death in patients hospitalized for COVID-19 vs seasonal influenza[7,*]

35%
increased risk of death
following hospitalization, compared to seasonal influenza

*Data based on US Dept. of Veterans Affairs electronic health records that identified people who were admitted to the hospital with a diagnosis of COVID-19 or seasonal influenza between 01 OCT 2023 and 27 MAR 2024.

Despite this,

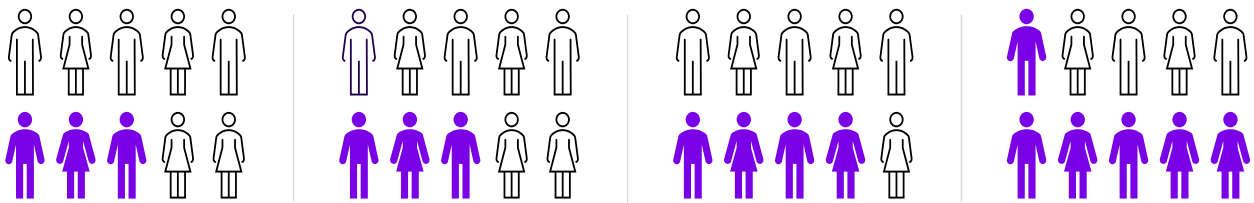
Figure 2: Influenza and COVID-19 vaccination rates amongst US adults, 18+, 2023–2024[3,4]



In the US COVID-19 vaccine is less than half that of flu[3,4]

Reasons for vaccine hesitancy

Figure 3: Among those who do **not** plan to get an updated COVID-19 vaccine, top reasons cited include[8]:



30%
Do not think that vaccines will protect them from disease

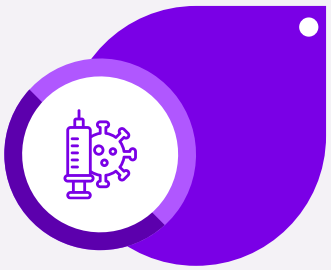
32%
Concerned about getting sick from vaccines

37%
Distrust of vaccines in general

56%
Concerns about side effects from the vaccine

sanofi

A recombinant protein-based COVID-19 vaccine was developed, incorporating a potent adjuvant to elicit a strong immune response. **This vaccine demonstrated >90% efficacy in a pivotal Phase 3 clinical trial**[9]



Adjuvant

Spike protein (recombinant)

The vaccine utilizes established technology, which is employed in other vaccines[10].

Abbreviations: CI: confidence interval; COVID-19: coronavirus disease 2019; IPTW: inverse probability weighting; RESP-NET: Respiratory Virus Hospitalization Surveillance Network; SARS-CoV-2: Severe acute respiratory syndrome coronavirus 2

References:

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