



THE WHITE HOUSE
WASHINGTON

COVID-19 Press Briefing

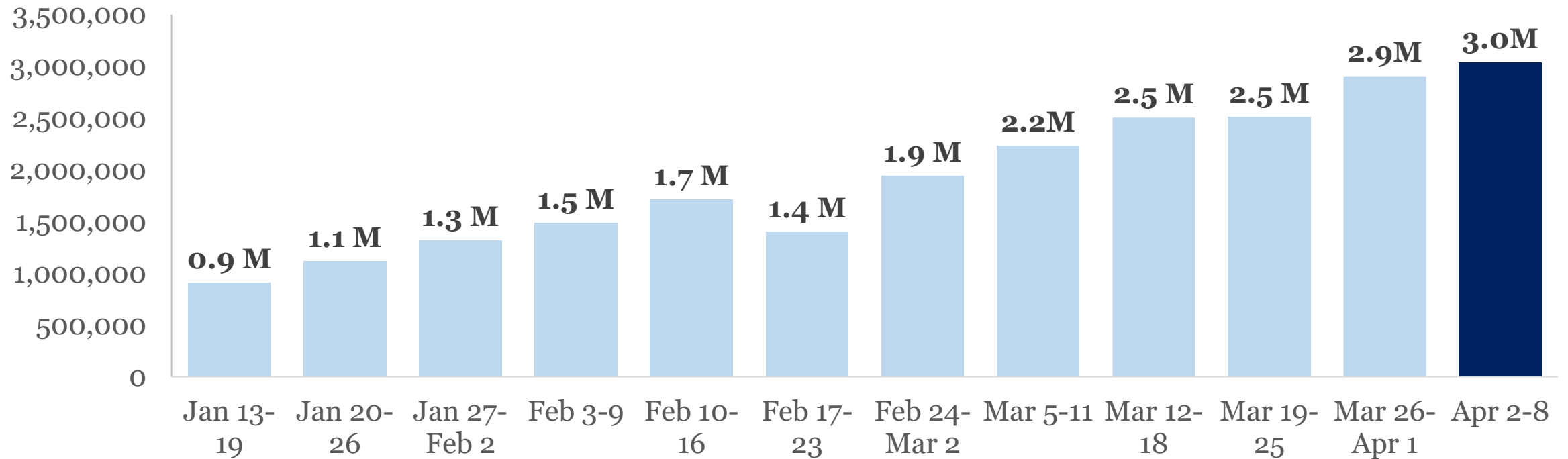
April 9, 2021



The Vaccination Progress Report

7-day average daily doses administered by week as of 4/8/2021*

Doses per day



*7-day average from March 3 – March 9 was 2.2M



Daily Change in COVID-19 Cases, US

January 22, 2020 – April 7, 2021

TOTAL Cases Reported Since 1/22/20

30,737,477

NEW Cases Reported to CDC on 4/7/21

74,860

Change in 7-Day Case Average

+2.0%

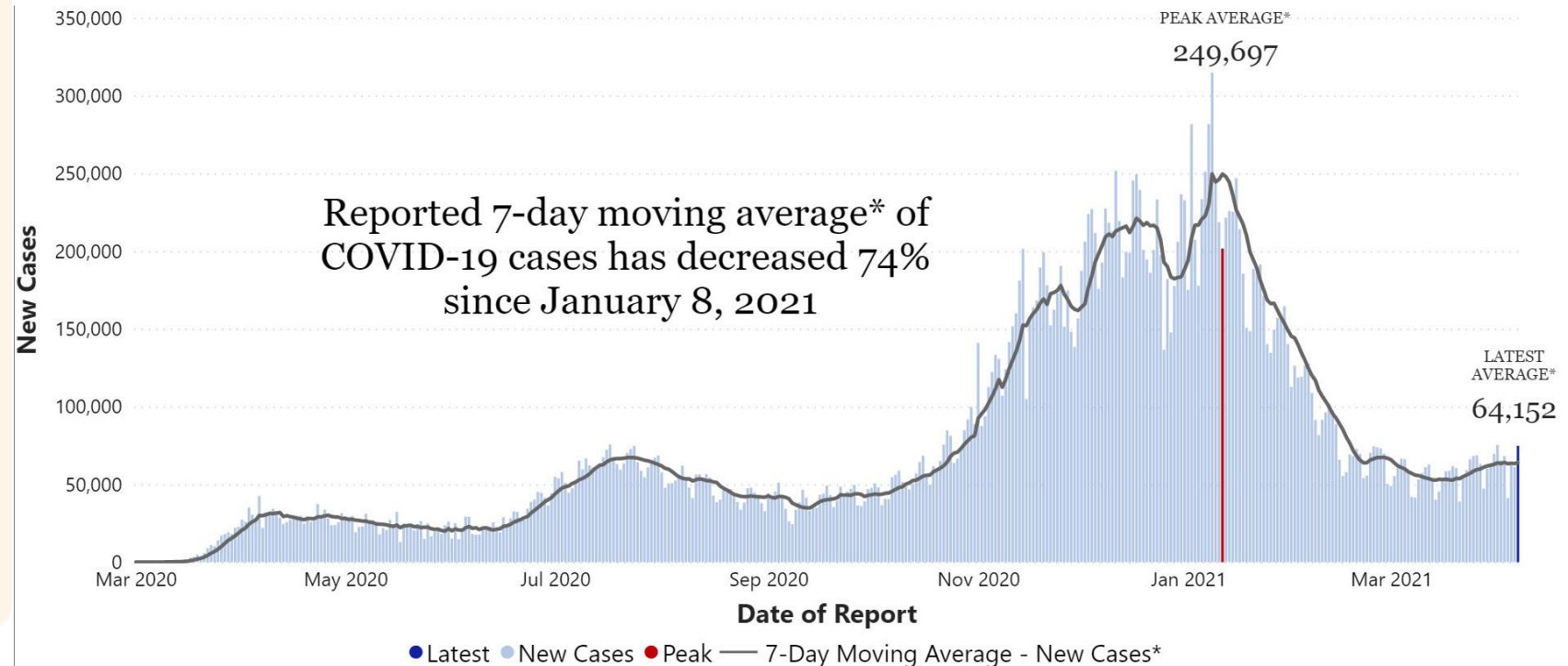
Current 7-Day Case Average (4/1/21 - 4/7/21)

64,152

Prior 7-Day Case Average (3/25/21 - 3/31/21)

62,869

Peaks in New Cases and Highest 7-Day Moving Average		
	Highest Daily Number of New Cases	Highest 7-Day Moving Average
Current	314,861 (1/8/21)	249,697 (1/8/21)
2nd Peak	75,624 (7/17/20)	67,348 (7/23/20)
1st Peak	42,544 (4/6/20)	31,940 (4/12/20)



*7-day averages exclude historical cases reported retroactively by states



New Admissions of Patients with Confirmed COVID-19

August 1, 2020 – April 6, 2021

Patients Currently Hospitalized with COVID on 4/6/21

36,295

New Admissions on 4/6/21

6,583

Peak in New Admissions (1/5/21)

17,988

Change in 7-Day Average of New Admissions

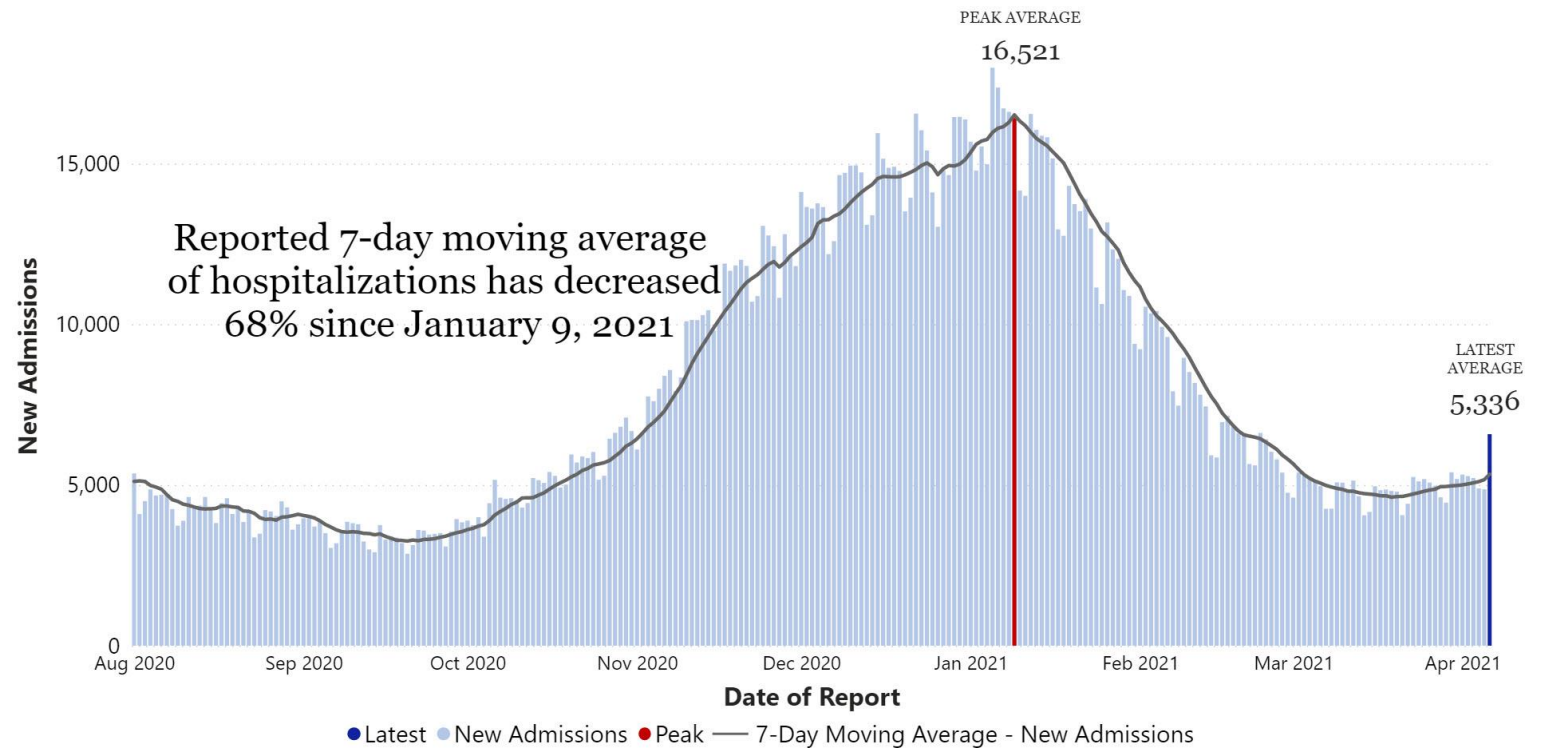
+7.3%

Current 7-Day Average of New Admissions (3/31/21 - 4/6/21)

5,336

Prior 7-Day Average of New Admissions (3/24/21 - 3/30/21)

4,974



Daily Change in COVID-19 Deaths, United States

January 22, 2020 – April 7, 2021

TOTAL Deaths Reported Since 1/22/2020

556,106

NEW Deaths Reported to CDC on 4/7/21

871

Change in 7-Day Death Average

-20.6%

Current 7-Day Death Average (4/1/21 - 4/7/21)

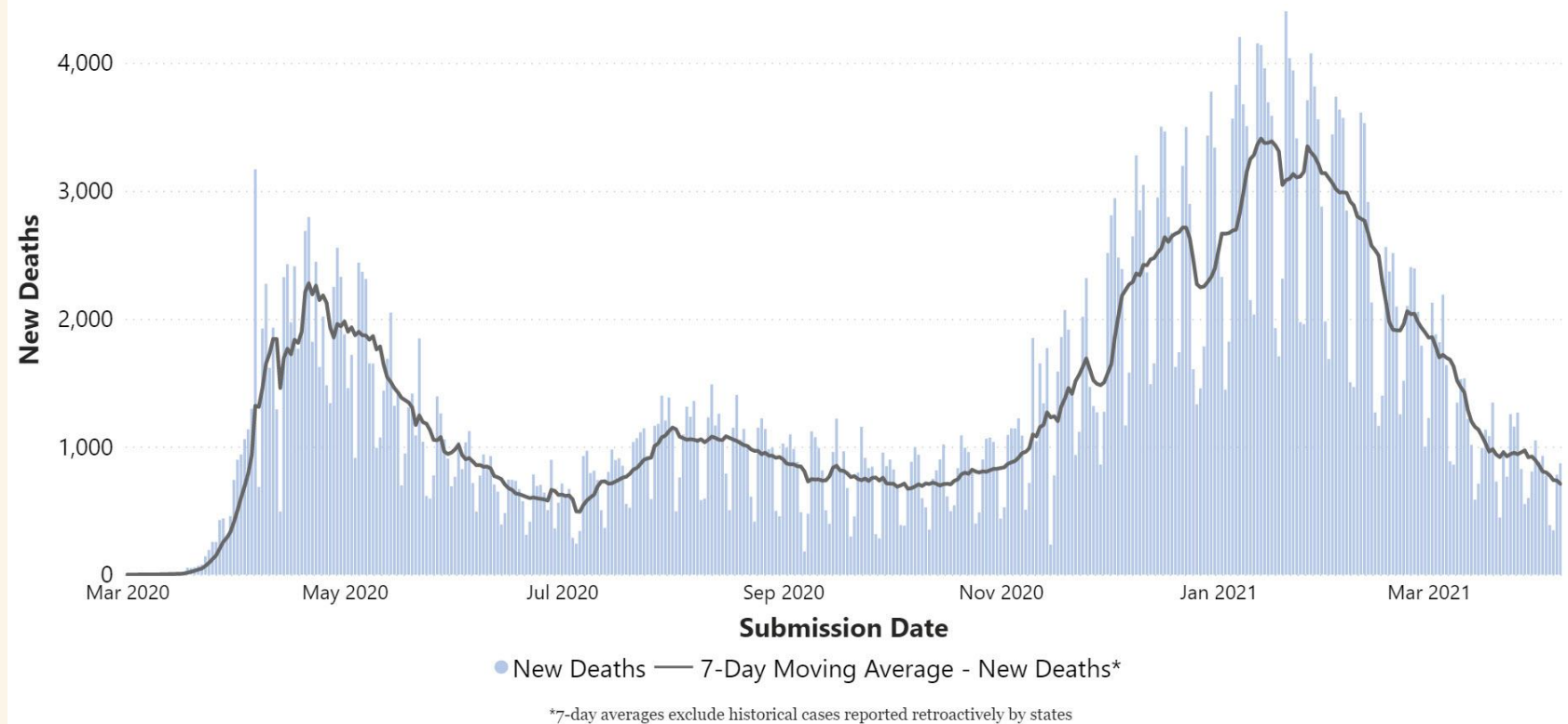
711

Prior 7-Day Death Average (3/25/21 - 3/31/21)

895

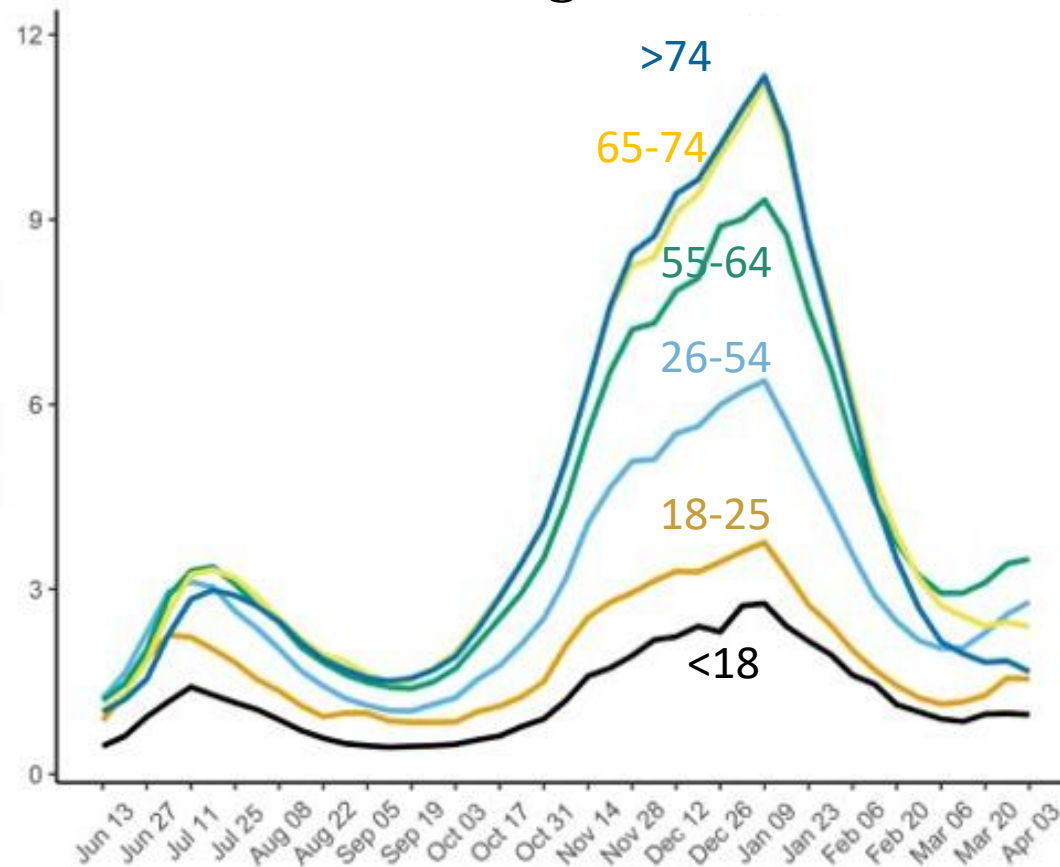
Forecasted Total Deaths by 5/1/21

568,000 to 588,000



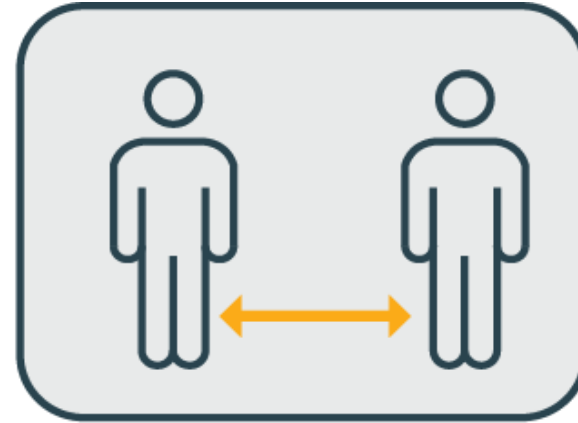
Increasing Emergency Room Visits for COVID-19

Percent of Emergency Room Visits in the US for Patients Diagnosed with COVID-19





WEAR A MASK



STAY 6 FEET APART



AVOID CROWDS



AVOID TRAVEL

April 9, 2021
Vol. 372, Issue 6538

Science

The Story Behind COVID-19 Vaccines

Anthony S. Fauci

“The speed and efficiency with which these highly efficacious vaccines were developed and their potential for saving millions of lives are due to an extraordinary multidisciplinary effort involving basic, preclinical, and clinical science that had been under way—out of the spotlight—for decades before the unfolding of the COVID-19 pandemic.”



COVID-19 Vaccine Development

■ **Platforms**

■ **Immunogen Design**



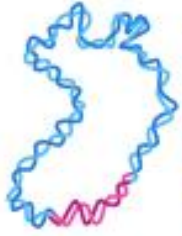
COVID-19 Vaccine Development

■ Platforms

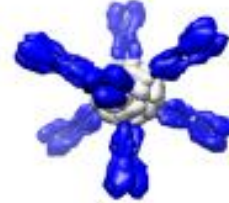
■ Immunogen Design



Vaccine Platform Technologies



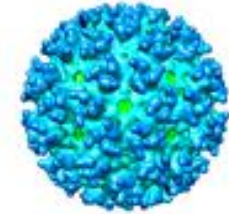
**Genetic immunization
(DNA and RNA vaccines)**
SARS, MERS, West Nile,
Zika, RSV



**Nanoparticles
(viral protein on particle)**
Influenza, Malaria, RSV



**Viral vector
(e.g., VSV, adenovirus)**
Ebola, Marburg, Zika



**Virus-like particle (VLP)
(no RNA or DNA;
non-infectious)**
Chikungunya, Zika,
WEVEE



Recombinant protein
Influenza, RSV



**Adjuvants
(e.g., AS01, MF59)**

Selected Examples

Immunity

August 1, 2005



Suppression of RNA Recognition by Toll-like Receptors: The Impact of Nucleoside Modification and the Evolutionary Origin of RNA

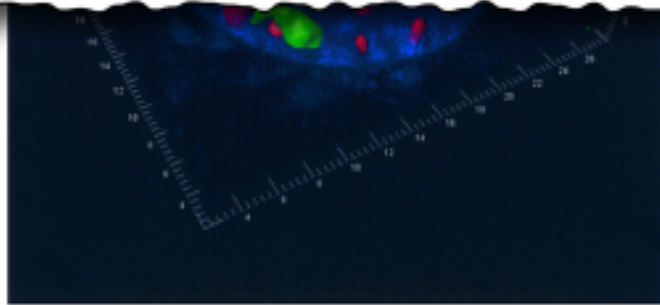
K Karikó, D Weissman et al.

- Showed how to modify mRNA without triggering key inflammatory pathways, overcoming a key hurdle and paving the way for current vaccines



Comparative Seroprevalence and Immunogenicity of Six Rare Serotype Recombinant Adenovirus Vaccine Vectors from Subgroups B and D

P Abbink, DH Barouch et al.



Journal of
Virology



May 2007, Volume 81 Issue 9

- rAd26 vectors proved the most immunogenic among the rare serotype rAd vectors studied, with promise for vaccine development

COVID-19 Vaccine Development

■ Platforms

■ Immunogen Design





Crystal Structure of a Soluble Cleaved HIV-1 Envelope Trimer

J-P Julien, A Cupo, D Sok, RL Stanfield, D Lyumkis, MC Deller, P-J Klasse, DR Burton, RW Sanders, JP Moore, AB Ward, IA Wilson

Cryo-EM Structure of a Fully Glycosylated Soluble Cleaved HIV-1 Envelope Trimer

D Lyumkis, J-P Julien, N de Val, A Cupo, CS Potter, P-J Klasse, DR Burton, RW Sanders, JP Moore, B Carragher, IA Wilson, AB Ward



NIAID Vaccine Research Center



VRC Principal Investigators
and Program Heads

Basic Research



Clinical Trials

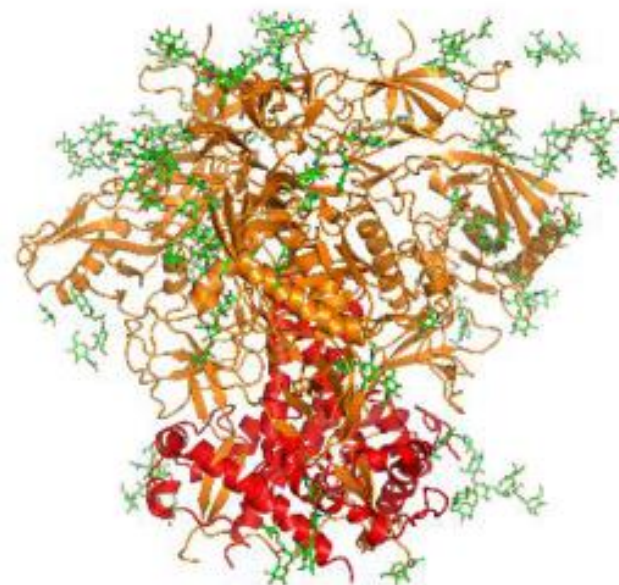


Stable, Soluble Structure of HIV Envelope Trimer



Structure and Immune Recognition of Trimeric Pre-Fusion HIV-1 Env

M Pancera, M Connors, PD Kwong, et al.



Stabilized, soluble trimer crystal structure resolved in detail

Image courtesy of M Pancera, J Stuckey, PD Kwong.



Structure-Based Design of RSV F Vaccine



Structure of RSV Fusion Glycoprotein Trimer Bound to a Prefusion-Specific Neutralizing Antibody

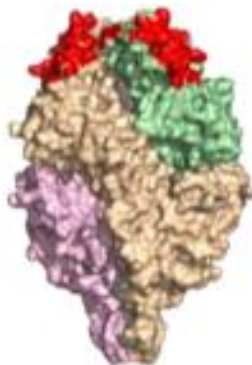
JS McLellan, PD Kwong, BS Graham, et al.



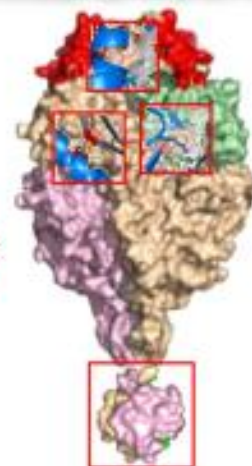
Structure-Based Design of a Fusion Glycoprotein Vaccine for Respiratory Syncytial Virus

JS McLellan, BS Graham, PD Kwong et al.

Pre-Fusion F Protein



Stabilization



Vaccine immunogen

Courtesy of Barney Graham



Structure-Guided Stabilization of MERS-CoV Spike Protein

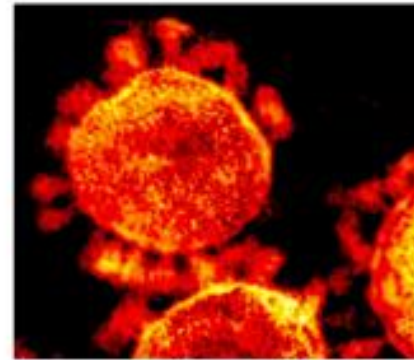
August 29, 2017 | vol. 114 | no. 35

PNAS
Proceedings of the National Academy of Sciences of the United States of America

RESEARCH ARTICLE

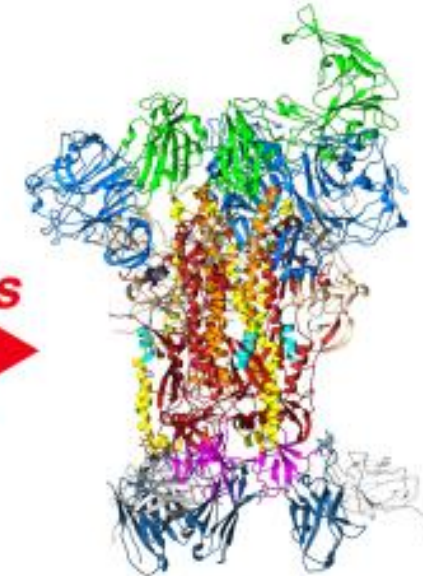
Immunogenicity and Structures of a Rationally Designed Prefusion MERS-CoV Spike Antigen

J Pallesen, JS McLellan et al.

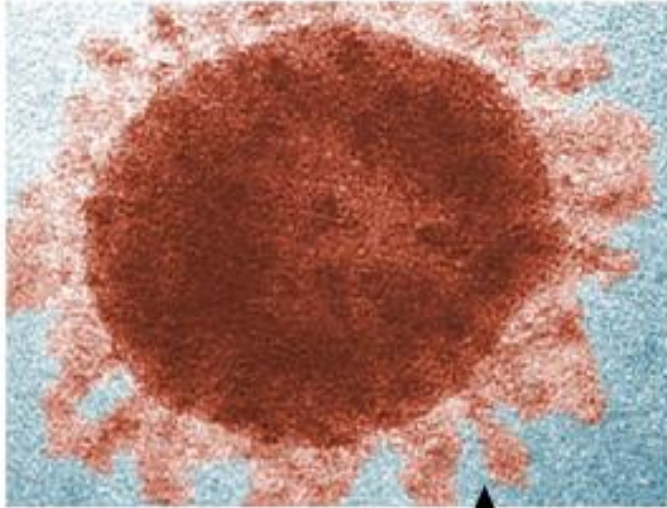


MERS-CoV Spike Protein
Pre-fusion Form
(Unstable)

Mutations

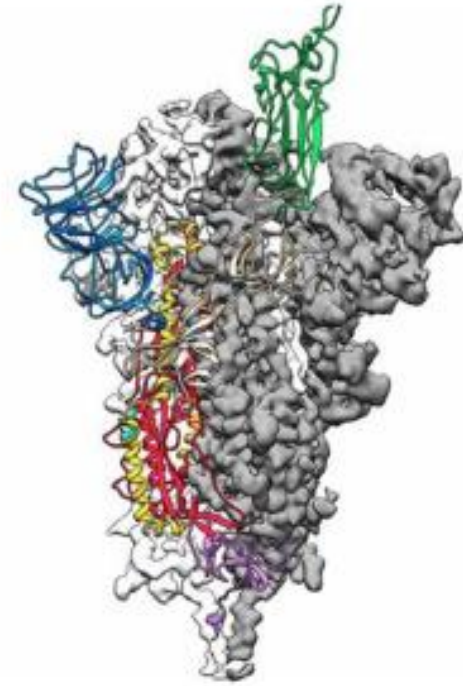


MERS-CoV Spike Protein
Pre-fusion Form
(Stable)










**SARS-CoV-2
Spike protein
Pre-fusion
form
(Unstable)**

Mutations



**SARS-CoV-2
Spike protein
Pre-fusion
form
(Stable)**

Selected COVID-19 Vaccines

Platform		Developer	Status
Nucleic Acid (mRNA)		<i>moderna</i>	■ EUA
		BIONTECH 	■ EUA
Adenovirus Vector		<i>Johnson & Johnson</i>	■ EUA
		AstraZeneca 	■ EUA TBD
Recombinant Protein and Adjuvant		 SANOFI 	■ Phase 2 clinical trial launched Feb. 2021
		NOVAVAX Creating Tomorrow's Vaccines Today	■ EUA TBD

We continue to learn about the pandemic's **toll**

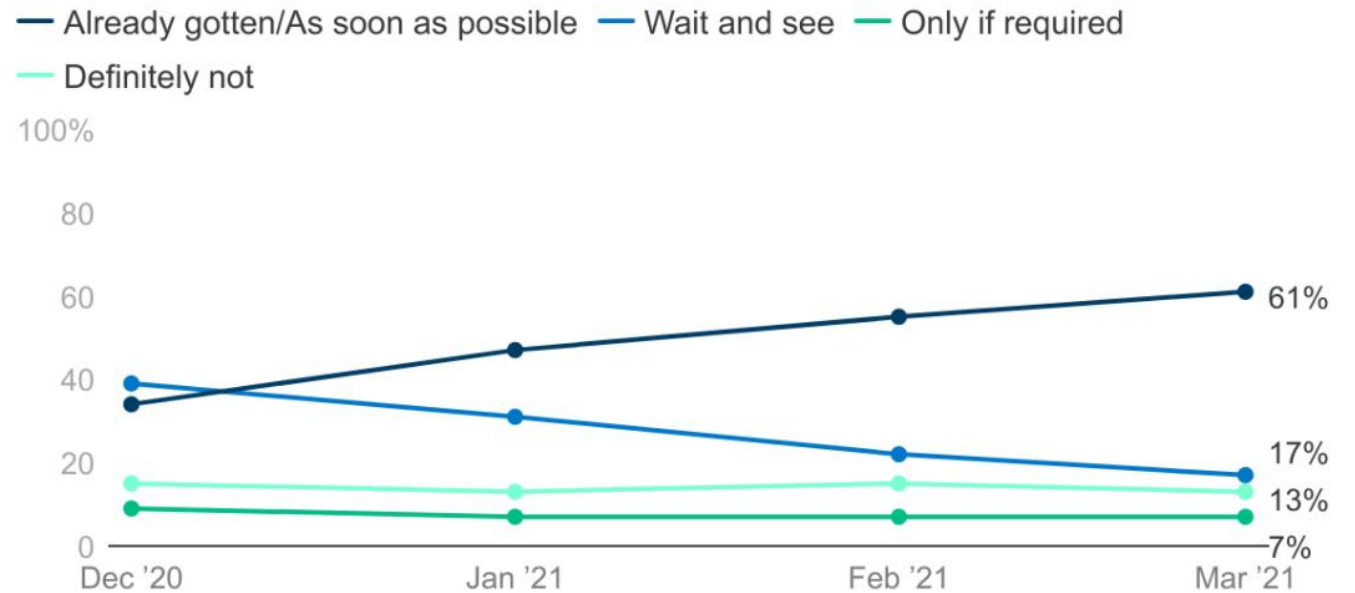
- Nearly **40,000 children** in America lost a parent to COVID-19, according to a new model¹
- Approximately **1 in 8 people** with COVID-19 were diagnosed with a new psychiatric or neurological condition in the following 6 months – anxiety & depression were among the most common²
- Younger adults, racial & ethnic minorities, essential workers, & unpaid adult caregivers have experienced **disproportionately** worse mental health outcomes³
- The Administration has provided nearly **\$3 billion** to states & territories to address mental illness & addiction crisis; in addition, the American Rescue Plan Act included around **\$3.56 billion** for prevention & treatment of mental health & substance use disorders

Sources: (1) Kidman R et al, JAMA Pediatrics, Apr 2021. (2) Taquet et al, Lancet Psychiatry, Apr 2021. (3) CDC MMWR, Aug 2020.



Confidence in COVID-19 vaccines is rising

Vaccine confidence is rising, with **61%** of people vaccinated or wanting to receive a vaccine “as soon as possible” as of late March (vs. **34%** in December 2020)



Source: KFF Vaccine Monitor, March 2021.



Trusted messengers are essential for health education & empowerment

- More than 3 in 4 adults in the U.S. have said they would likely turn to a **doctor, nurse or other health care provider** when deciding whether to get a vaccination¹
- More than half said they would likely turn to **family or friends** about whether to get a vaccination¹
- **Covid-19 Community Corps** is growing – **275** members last week to nearly **5,000** members today: www.WeCanDoThis.HHS.gov
- Key actions for all of us:
 1. Get vaccinated.
 2. Help family & friends make a plan to get vaccinated.



Source: KFF Vaccine Monitor, January 2021.





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