



The
CENTER for
VICTIMS of
TORTURE

with



Harvard
Program
in Refugee
Trauma

NCB Webinar

COVID Vaccinations: Practical and Ethical Considerations

February 24, 2021



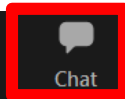
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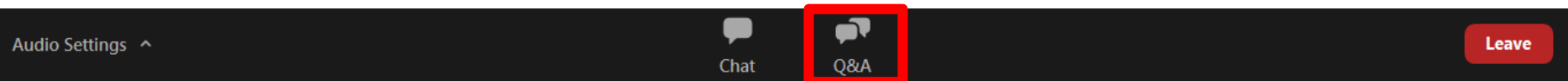
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Objectives

1. Have new tools for developing or strengthening their program's approach to COVID vaccination
2. Be able to recognize current and novel treatment options for COVID-19
3. Be able to identify good practices and ethical considerations for talking with clients about COVID-19 vaccinations
4. Be able to locate resources to help themselves and their clients obtain accurate information on COVID-19
5. Learn/adapt approaches for addressing vaccine hesitancy and equity concerns among underserved clients



Presenters



Rajeev Bais, MD, MPH

Director

The Carolina Survivor Clinic at USC



Edwin Hayes II, MD

Co-director

The Carolina Survivor Clinic at USC



National Capacity Building Project

COVID Vaccinations: Practical and Ethical considerations

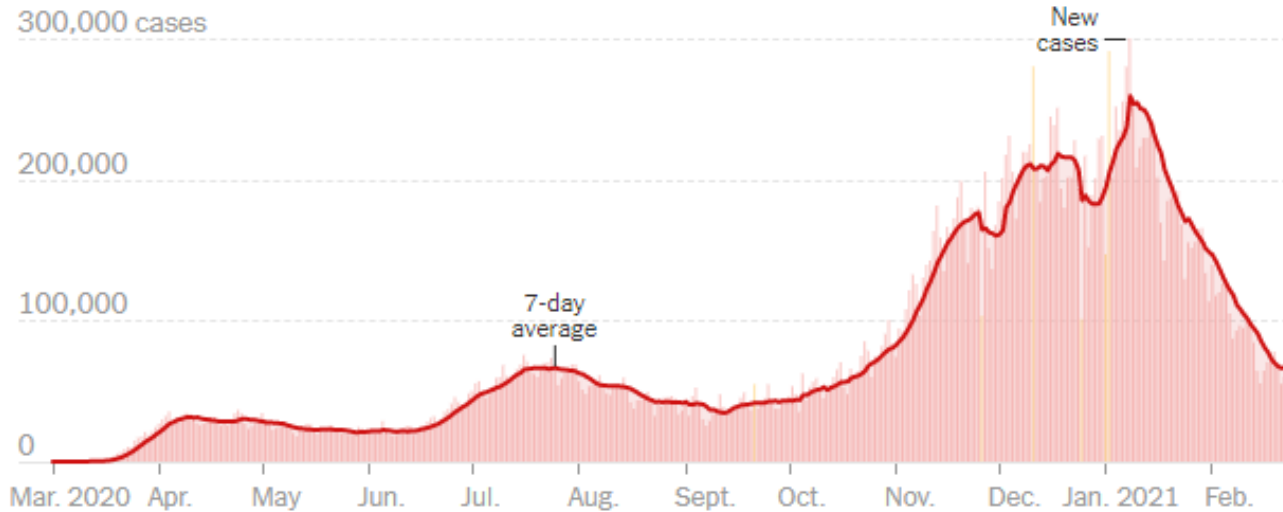
Edwin Hayes, MD and Rajeev Bais, MD
The Carolina Survivor Clinic at USC

2/24/21

- Epidemiology
- Tests and Treatments
- Vaccines
- Variants
- Vaccine Hesitancy
- Barriers to Overcome












Updated February 23, 2021, 7:42 A.M. E.T.

[Leer en español](#)



	TOTAL REPORTED	ON FEB. 22	14-DAY CHANGE
Cases	28.2 million+	59,462	-40% ↘
Deaths	500,104	1,454	-28% ↘
Hospitalized		55,403	-31% ↘

■ Day with reporting anomaly. Hospitalization data from the Covid Tracking Project; 14-day change trends use 7-day averages.

	TOTAL CASES	PER 100,000	DAILY AVG. IN LAST 7 DAYS	▼ PER 100,000	WEEKLY CASES PER CAPITA
					FEWER  MORE
+ South Carolina >	505,589	9,820	2,367	46	 March 1 Feb. 22
+ New York >	1,598,226	8,216	7,366	38	
+ New Jersey >	769,109	8,659	3,097	35	
+ Rhode Island >	123,980	11,703	313	30	
+ North Carolina >	849,325	8,098	2,936	28	
+ Florida >	1,872,915	8,720	5,991	28	
+ Delaware >	85,090	8,738	264	27	
+ Georgia >	962,215	9,063	2,819	27	
+ Alaska >	57,316	7,835	187	26	
+ Kentucky >	401,579	8,989	1,115	25	

SARS-CoV-2 Transmission From People Without COVID-19 Symptoms

Michael A. Johansson, PhD; Talia M. Quandelacy, PhD, MPH; Sarah Kada, PhD; Pragati Venkata Prasad, MPH; Molly Steele, PhD, MPH; John T. Brooks, MD; Rachel B. Slayton, PhD, MPH; Matthew Biggerstaff, ScD, MPH; Jay C. Butler, MD

- Decision analytical model
 - Assessed multiple scenarios for transmission
 - Estimated that over 50% of overall transmission from asymptomatic individuals
 - Pre-symptomatic individuals and asymptomatic

COVID-19 rapid tests are inexpensive and fast but sometimes give incorrect results*



1 in 5 patients with symptoms and confirmed COVID-19 received a negative rapid antigen test result

* 1,098 paired nasal swabs collected at 2 universities in Wisconsin, September 28–October 9, were tested using Sofia SARS Antigen FIA and compared to rRT-PCR/viral culture results.

People with **symptoms** and a **negative rapid test** should



Get a confirmation (RT-PCR) test



Wear a mask



Stay home in a separate room

Compared PCR and antigen test results:
In PCR + symptomatic people, antigen test missed 1 in 5
In PCR + asymptomatic people, antigen test missed 3 in 5

DISEASE SEVERITY

PANEL'S RECOMMENDATIONS

Not Hospitalized,
Mild to Moderate COVID-19

There are insufficient data to recommend either for or against any specific antiviral or antibody therapy. SARS-CoV-2 neutralizing antibodies (bamlanivimab or casirivimab plus imdevimab) are available through EUAs for outpatients who are at high risk of disease progression.^a

The Panel recommends against the use of **dexamethasone** or **other corticosteroids (AIII)**.^b

Hospitalized but Does Not Require
Supplemental Oxygen

The Panel recommends against the use of **dexamethasone (AIIa)** or **other corticosteroids (AIII)**.^b

There are insufficient data to recommend either for or against the routine use of remdesivir. For patients at high risk of disease progression, the use of remdesivir may be appropriate.

**Hospitalized and Requires
Supplemental Oxygen**

(But Does Not Require Oxygen Delivery
Through a High-Flow Device,
Noninvasive Ventilation, Invasive
Mechanical Ventilation, or ECMO)

Use one of the following options:

- **Remdesivir^{c,d}** (e.g., for patients who require minimal supplemental oxygen) **(BIIa)**
- **Dexamethasone^e plus remdesivir^{c,d}** (e.g., for patients who require increasing amounts of supplemental oxygen) **(BIII)^{e,g}**
- **Dexamethasone^e** (e.g., when combination therapy with remdesivir cannot be used or is not available) **(BI)**

**Hospitalized and Requires Oxygen
Delivery Through a High-Flow Device
or Noninvasive Ventilation**

Use one of the following options:

- **Dexamethasone^{e,g} (AI)**
- **Dexamethasone^e plus remdesivir^{c,d} (BIII)^{e,g}**

**Hospitalized and Requires Invasive
Mechanical Ventilation or ECMO**

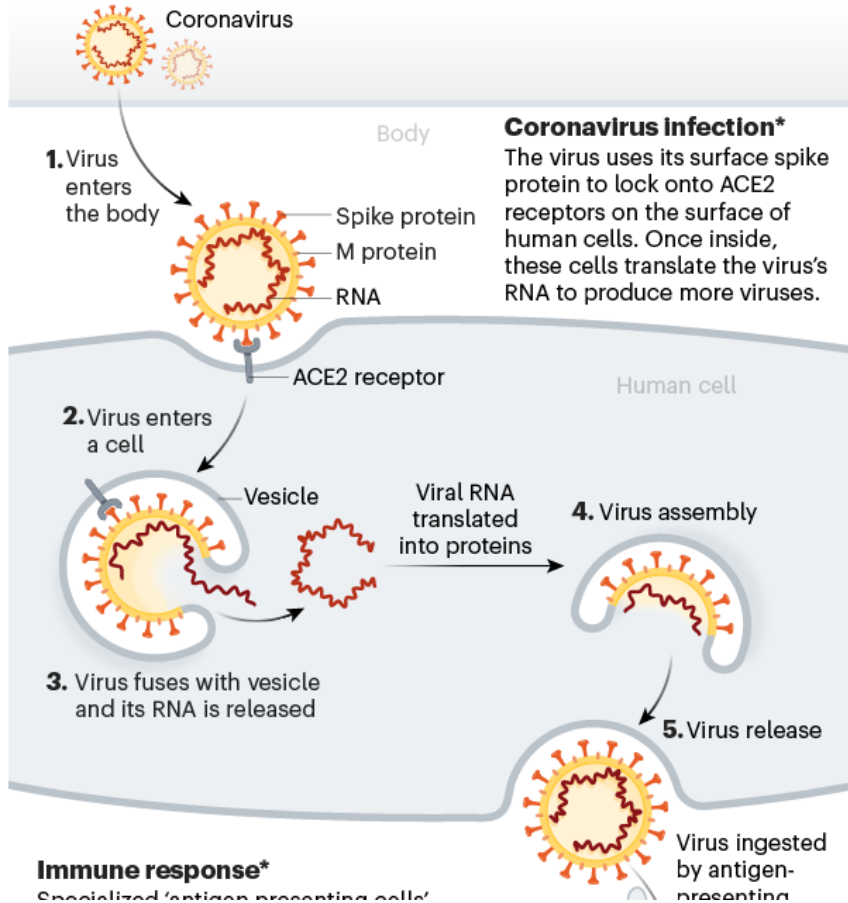
Dexamethasone^e (AI)^h

Rating of Recommendations: A = Strong; B = Moderate; C = Optional

Rating of Evidence: I = One or more randomized trials without major limitations; IIa = Other randomized trials or subgroup analyses of randomized trials; IIb = Nonrandomized trials or observational cohort studies; III = Expert opinion

VACCINE BASICS: HOW WE DEVELOP IMMUNITY

The body's adaptive immune system can learn to recognize new, invading pathogens, such as the coronavirus SARS-CoV-2.



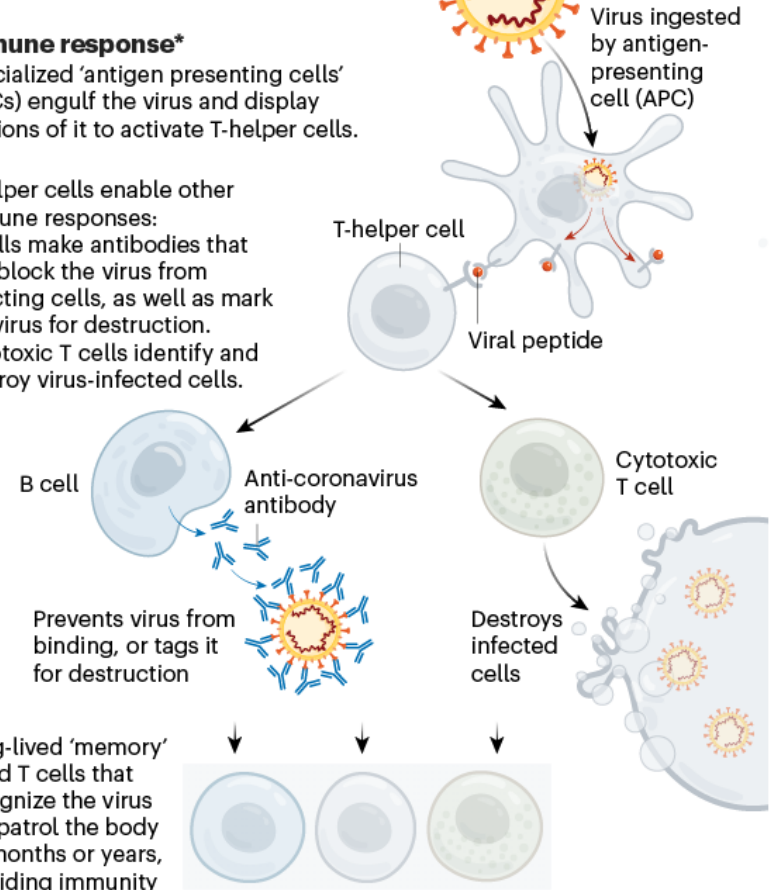
and its RNA is released

5. Virus release

Immune response*

Specialized 'antigen presenting cells' (APCs) engulf the virus and display portions of it to activate T-helper cells.

T-helper cells enable other immune responses:
B cells make antibodies that can block the virus from infecting cells, as well as mark the virus for destruction.
Cytotoxic T cells identify and destroy virus-infected cells.



*Simplified

©nature

Graphics: Nik Spencer/Nature

Dexamethasone in Hospitalized Patients with Covid-19 — Preliminary Report

The RECOVERY Collaborative Group*

- The benefit was greatest in:
 - patients with symptoms > 7 days
 - patients who required mechanical ventilation.
 - No benefit among patients with shorter symptom duration or no supplemental O₂
 - Improved mortality

Remdesivir for the Treatment of Covid-19 — Final Report

John H. Beigel, M.D., Kay M. Tomashek, M.D., M.P.H., Lori E. Dodd, Ph.D., Aneesh K. Mehta, M.D., Barry S. Zingman, M.D., Andre C. Kalil, M.D., M.P.H., Elizabeth Hohmann, M.D., Helen Y. Chu, M.D., M.P.H., Annie Luetkemeyer, M.D., Susan Kline, M.D., M.P.H., Diego Lopez de Castilla, M.D., M.P.H., Robert W. Finberg, M.D., *et al.*, for the ACTT-1 Study Group Members*

- November 5, 2020
- 1,062 patients
- 50% remdesivir, 50% to placebo

	Remdesivir	Placebo
Median recovery time	10	15
15-day mortality	6.7%	11.9%
29-day mortality	11.4%	15.2%
SAE	24.6%	31.6%

Convalescent Plasma

- NIH Update - October 9, 2020
- **There are insufficient data for the COVID-19 Treatment Guidelines Panel to recommend either for or against the use of convalescent plasma for the treatment of COVID-19.**

Early High-Titer Plasma Therapy to Prevent Severe Covid-19 in Older Adults

Romina Libster, M.D., Gonzalo Pérez Marc, M.D., Diego Wappner, M.D., Silvina Coviello, M.S., Alejandra Bianchi, Virginia Braem, Ignacio Esteban, M.D., Mauricio T. Caballero, M.D., Cristian Wood, M.D., Mabel Berrueta, M.D., Aníbal Rondan, M.D., Gabriela Lescano, M.D., et al., for the Fundación INFANT-COVID-19 Group*

- January 6, 2021/February 18,2021
- Randomized, double-blind, placebo-controlled study in Argentina b/w June 4 - October 25, 2020
- Convalescent Plasma with high antibody titers (1:1000) was given **within 72 hrs of onset of symptoms**
- 160 patients randomized: over 75yo or b/w 65-74 with significant co-morbidities
- Stopped early because of a decrease in COVID patients
- **Progression to Severe Respiratory Disease was 16% in pts receiving CP vs 31% of placebo**
- Patients receiving plasma with titers > 1:3200 reduced the risk of progression to severe disease by 73%

Tocilizumab

- **Studies Showing No Benefit:**

- RCT-TCZ-COVID-19 (n=126)
 - Primary end point- hypoxia, ICU admission or death- Stopped early due to lack of benefit
- CORIMUNO-19-TOCI(n=131)
 - Toci may have reduced need for mechanical ventilation but no impact on mortality
- BACC Bay Trial(n=243)- 7 Boston hospitals
 - Placebo controlled
 - Toci did not reduce requirement for intubation or reduce mortality
- Empacta (n=389)
 - Placebo controlled
 - Toci reduced need for mechanical ventilation but mortality did not improve
- COVACTA trial
 - First global, randomized, double-blind, placebo-controlled phase III study
 - Primary endpoint - clinical status in hospitalized patients with severe infection
 - Did not meet its primary endpoint of improved clinical status
 - No difference in patient mortality at week 4

- **NIH Recommendations - August 27,2020**

- **The Panel recommends against the use of IL-6 receptor monoclonal antibodies (sarilumab, tocilizumab) or anti-IL-6 monoclonal antibody (siltuximab) for the treatment of COVID-19, except in a clinical trial.**

Interleukin-6 Receptor Antagonists in Critically Ill Patients with
Covid-19 – Preliminary report

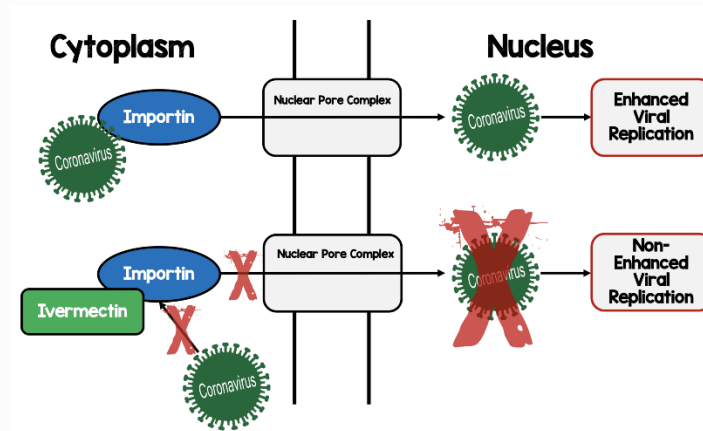
[Comments \(3\)](#)

[PREVIOUS](#)

Posted January 09, 2021.

- **REMCAP**
- **Critically ill** adult patients with suspected or confirmed COVID-19
- Admitted to the **ICU**
- Receiving respiratory or CV organ support
- 2046 pts randomized; 353 (tocilumab) vs. 48 (sarilumab) vs. 402 controls
- **Included steroids** as SOC
- Outcomes:
 - **Decreased hospital mortality: 28% vs. 22.2% vs. 35.8%**
 - **Median organ support-free days up to day 21: 10 vs. 11 vs. 0**
 - **90 day survival significantly improved**

Ivermectin



- Ivermectin is an FDA approved antiparasitic drug - used to treat several neglected tropical diseases, including onchocerciasis, helminthiases, and scabies
 - Ivermectin inhibits the host importin alpha/beta-1 nuclear transport proteins
- ICON Study: Retrospective cohort study of consecutive patients hospitalized at four Broward Health hospitals in South Florida with confirmed SARS-CoV-2.
 - Ivermectin was associated with lower mortality during treatment of COVID-19
- **NIH Recommendation**
- The COVID-19 Treatment Guidelines Panel **recommends against** the use of **ivermectin** for the treatment of COVID-19, except in a clinical trial (**AIII**).

Hydroxychloroquine

- NIH Recommendations:
 - The Panel **recommends against** the use of chloroquine or hydroxychloroquine with or without azithromycin for the treatment of COVID-19 in hospitalized patients (AI)
 - In non-hospitalized patient, the Panel **recommends against** the use of chloroquine or hydroxychloroquine with or without azithromycin for the treatment of COVID-19, except in a clinical trial (AI)
 - The Panel **recommends against** the use of high-dose chloroquine (600mg twice daily for 10 days) for the treatment of COVID-19 (AI).

MONOCLONAL ANTIBODY: Bamlanivimab





- A neutralizing monoclonal antibody that **targets the receptor-binding domain of the spike protein** of SARS-CoV-2
- **Blocks viral entry into cells**
- November 9, 2020, the FDA issued an Emergency Use Authorization (EUA) to make bamlanivimab available for the treatment of non-hospitalized patients with mild to moderate COVID-19 who are **at risk for progressing to severe disease and/or hospitalization.**
- Criteria:
 - BMI>35
 - Chronic Kidney Disease
 - Diabetes mellitus
 - Immuno-compromising condition
 - Aged >65 years
 - Aged 55 years and have:
 - cardiovascular disease, or
 - hypertension, or
 - Chronic obstructive pulmonary disease/other respiratory disease

MONOCLONAL ANTIBODY: Casirivimab Plus Imdevimab

- **2 recombinant human monoclonal antibodies that bind to nonoverlapping epitopes of the spike protein receptor binding domain of SARS-CoV-2**
- Blocks binding of the binding of the spike protein to the host cell
- November 21, 2020, the FDA issued an Emergency Use Authorization (EUA) to make casirivimab plus imdevimab combination available for the treatment of non-hospitalized patients with mild to moderate COVID-19 who are at risk for progressing to severe disease and/or hospitalization.
- Criteria:
 - BMI > 35
 - Chronic Kidney Disease
 - Diabetes mellitus
 - Immuno-compromising condition
 - Aged > 65 years
 - Aged 55 years and have:
 - cardiovascular disease, or
 - hypertension, or
 - Chronic obstructive pulmonary disease/other respiratory disease

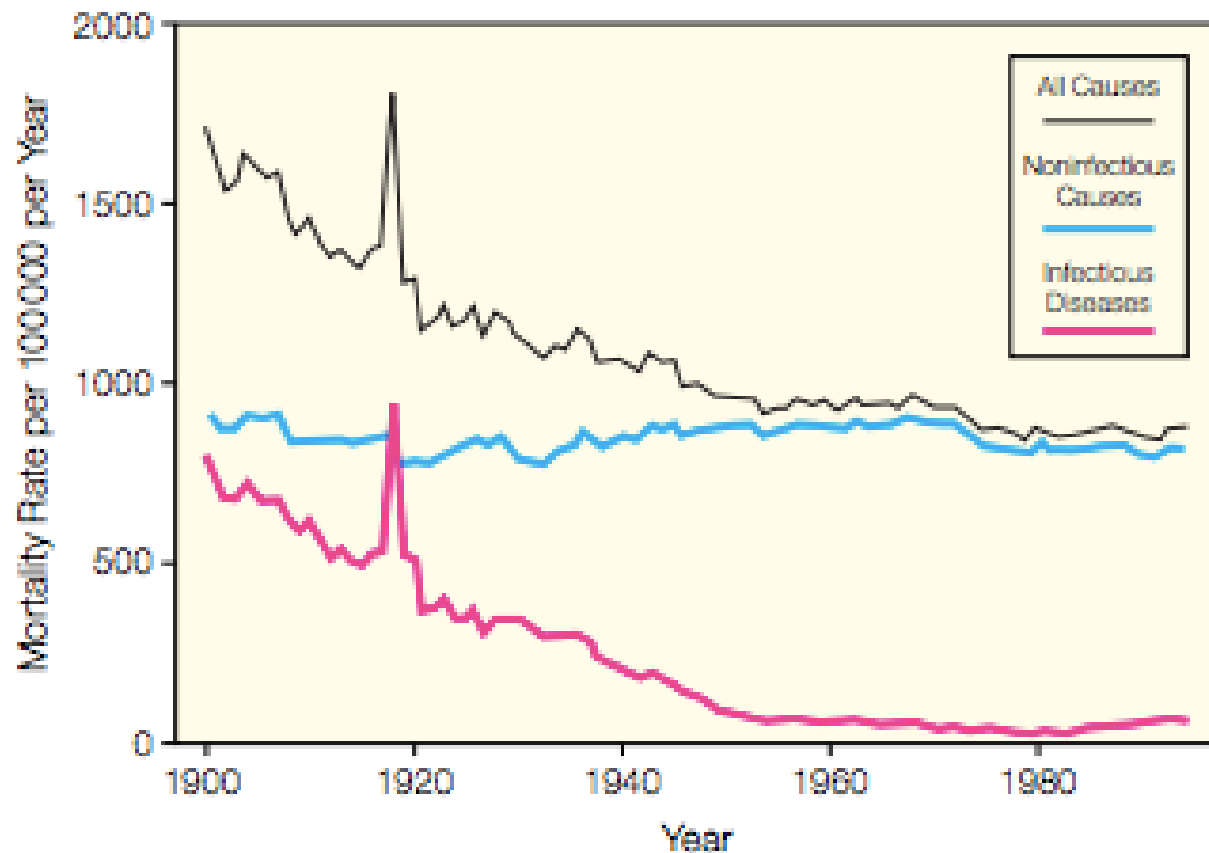
Increased Resistance of SARS-CoV-2 Variants B.1.351 and B.1.1.7 to Antibody Neutralization

Antibody Resistance of SARS-CoV-2 Variants B.1.351 and B.1.1.7

 Pengfei Wang, Manoj S. Nair, Lihong Liu, Sho Iketani, Yang Luo, Yicheng Guo, Maple Wang, Jian Yu, Baoshan Zhang, Peter D. Kwong,  Barney S. Graham, John R. Mascola, Jennifer Y. Chang, Michael T. Yin, Magdalena Sobieszczyk,  Christos A. Kyratsous, Lawrence Shapiro,  Zizhang Sheng, Yaoxing Huang, David D. Ho

doi: <https://doi.org/10.1101/2021.01.25.428137>

This article is a preprint and has not been certified by peer review [what does this mean?].

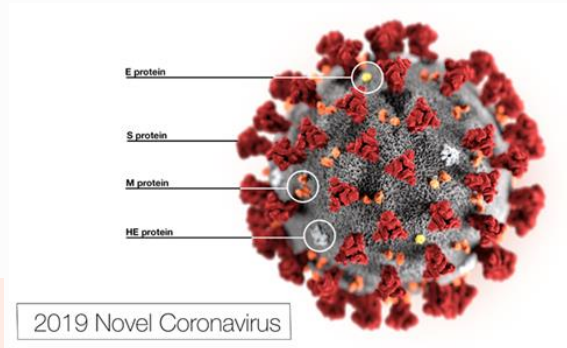
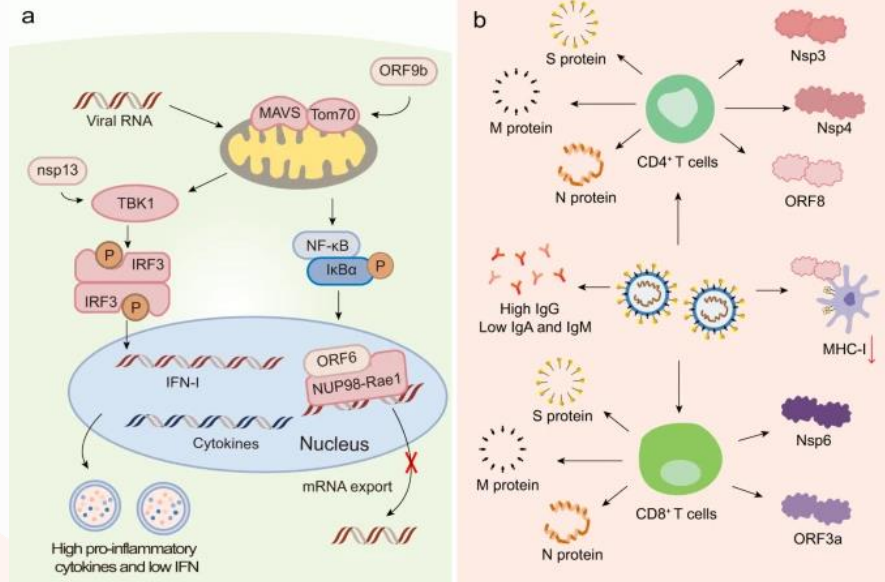


Trends in Infectious Disease Mortality in the United States During the 20th Century

SARS-CoV-2 Vaccines: How Did We Get Here?

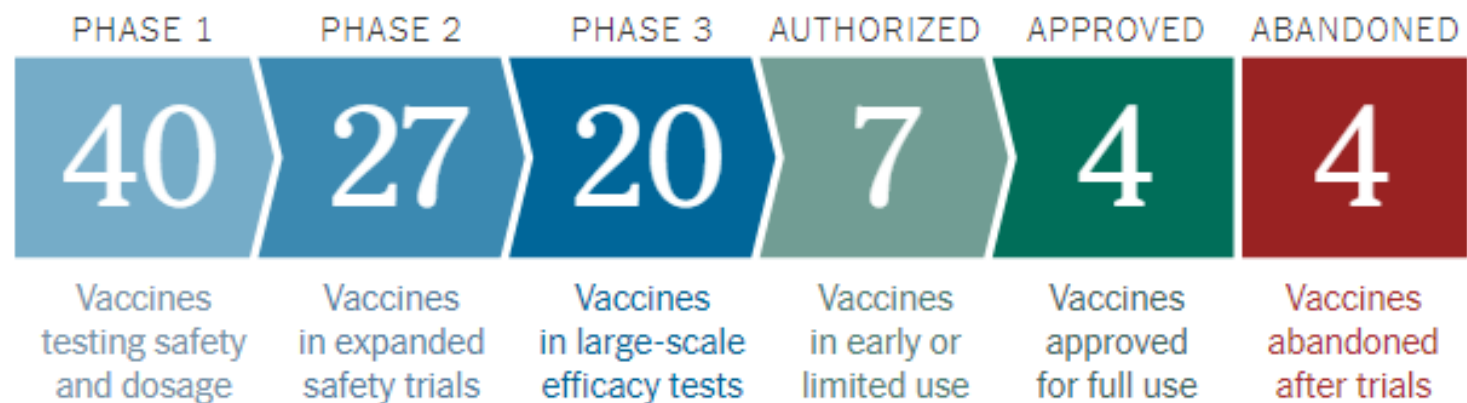
- Usually a very deliberate process but stakes were too high
- Operation Warpspeed
- Modern Science
- Experiences from MERS/SARS
- A LOT OF LUCK!

■ Immunity



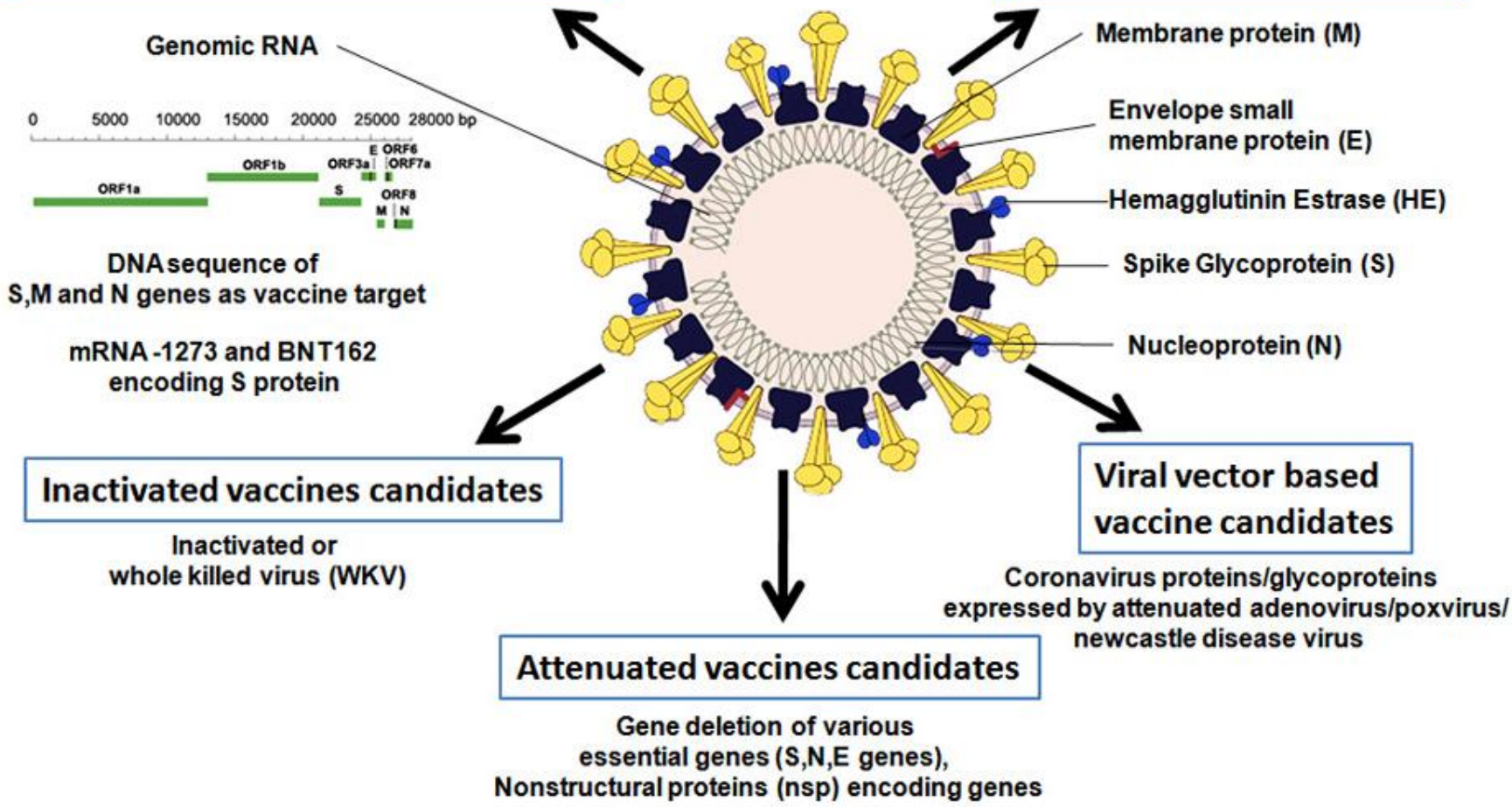
Coronavirus Vaccine Tracker

By [Carl Zimmer](#), [Jonathan Corum](#) and [Sui-Lee Wee](#) Updated Feb. 23, 2021



Nucleotide based vaccine candidates

Subunit vaccine candidates















Review article

Vaccination strategies to combat novel corona virus SARS-CoV-2

Satish Chandra Pandey ^{a, b}, Veni Pande ^{a, b}, Diksha Sati ^a, Shobha Upreti ^a, Mukesh Samant ^a

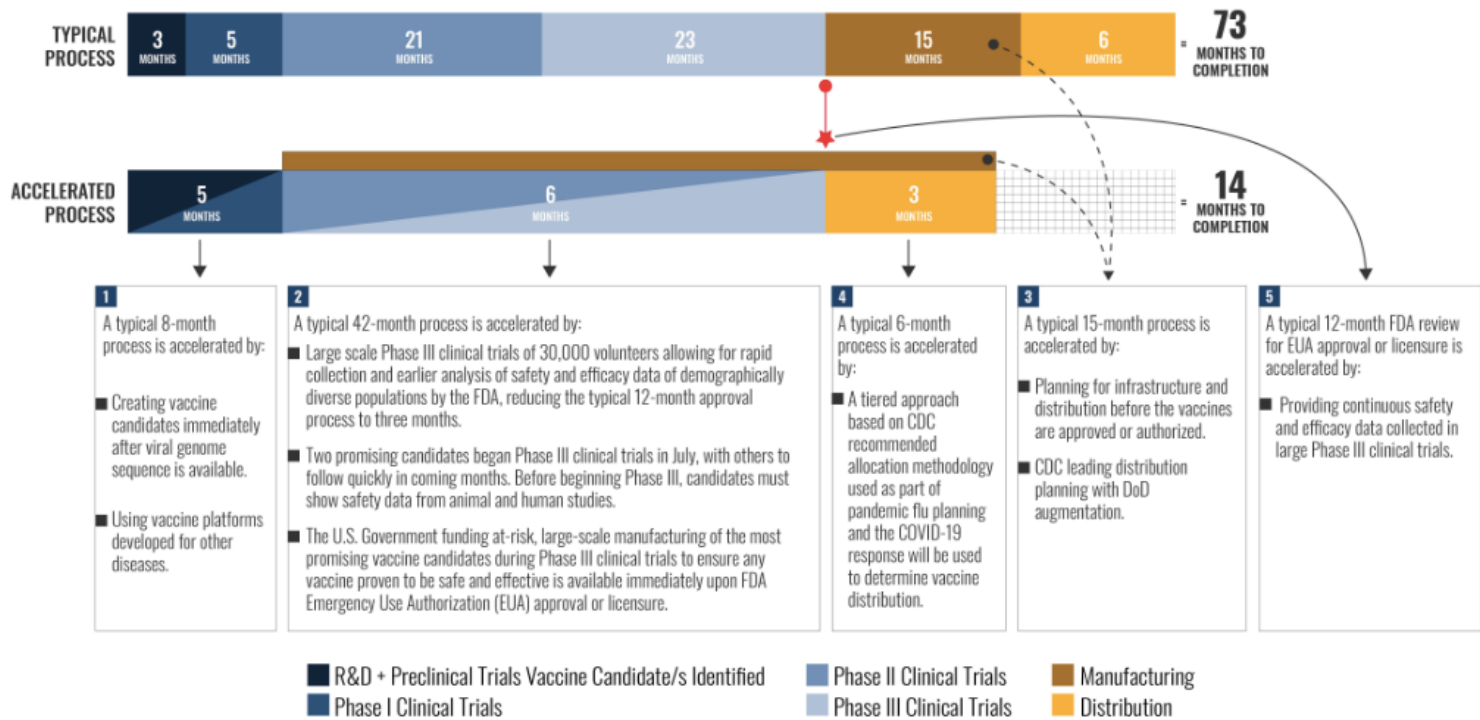
Leading vaccines

Developer	How It Works	Phase	Status
 Pfizer-BioNTech	mRNA	2 3	Approved in several countries. Emergency use in U.S., E.U., other countries.
 Moderna	mRNA	3	Approved in Switzerland. Emergency use in U.S., U.K., E.U., others.
 Gamaleya	Ad26, Ad5	3	Early use in Russia. Emergency use in other countries.
 Oxford-AstraZeneca	ChAdOx1	2 3	Emergency use in U.K., E.U., other countries.
 CanSino	Ad5	3	Limited use in China.
 Johnson & Johnson	Ad26	3	
 Vector Institute	Protein	3	Early use in Russia.
 Novavax	Protein	3	
 Sinopharm	Inactivated	3	Approved in China, U.A.E., Bahrain. Emergency use in Egypt, other countries.
 Sinovac	Inactivated	3	Approved in China. Emergency use in Brazil, other countries.
 Sinopharm-Wuhan	Inactivated	3	Limited use in China, U.A.E.
 Bharat Biotech	Inactivated	3	Emergency use in India.

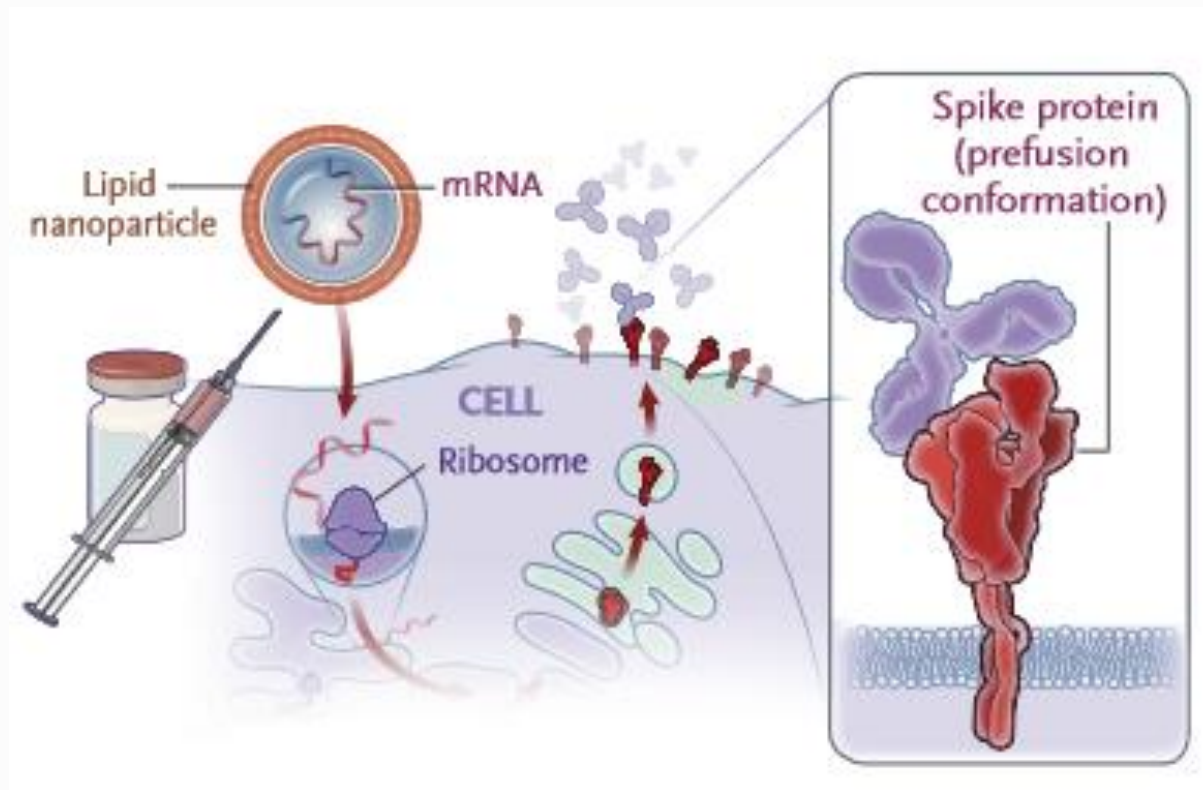


OPERATION WARP SPEED ACCELERATED VACCINE PROCESS

MISSION: Deliver 300 million doses of safe and effective vaccine by 1 January 2021.



- mRNA Vaccines



	BNT 162b2	mRNA-1273
FDA Approved	No	No
EUA	16+	18+
Prevention symptomatic disease	95% (8 vs 162 cases)	94% (11 vs 185 cases)
Prevention asymptomatic disease	? No data yet	Yes, swab at 2nd vaccine 15 vs 39 asymptomatic
Prevention of severe disease	Yes (1 vs 3 cases) or 1 vs 9	Yes (0 vs 30 cases)
Prevention of death	? (2 vs 4 deaths)	? (6 vs 7 (1 COVID) death)
Minimum order	975 doses (5 doses/vial)	100 doses (10 doses/vial)
Storage	-94F	-4F
Stability	Thawed - 5 days	Fridge 5 days/Room Temp 12Hr
Dosing	2 doses 21 days apart	2 doses 28 days apart
Dose	mRNA 30ug (0.3ml)	MRNA 100ug (0.5ml)

BNT 162b2 (Pfizer/BioNTech)

- mRNA vaccine EU submitted 1/20/2020
- Reviewed 1/30/2020 (92 pages)
- C45900 was started as a Phase 1/2 study in the US and amended to expand to a global Phase 2/3 study enrolling ~44,000 participants (1:1 randomization)
- 83% White, 28% Hispanic, 42% >55 yo
- 20% with comorbidity, 30% obese, 23 pregnancies (9 withdrew)
- Diary in > 6,000 patients
- SAEs, deaths, **treatment limiting AEs (0.1%), same in both arms**

Figure 8. Geometric Mean Titers: SARS-CoV-2 Neutralization Assay – NT50 – Evaluable Immunogenicity Population – Phase 2

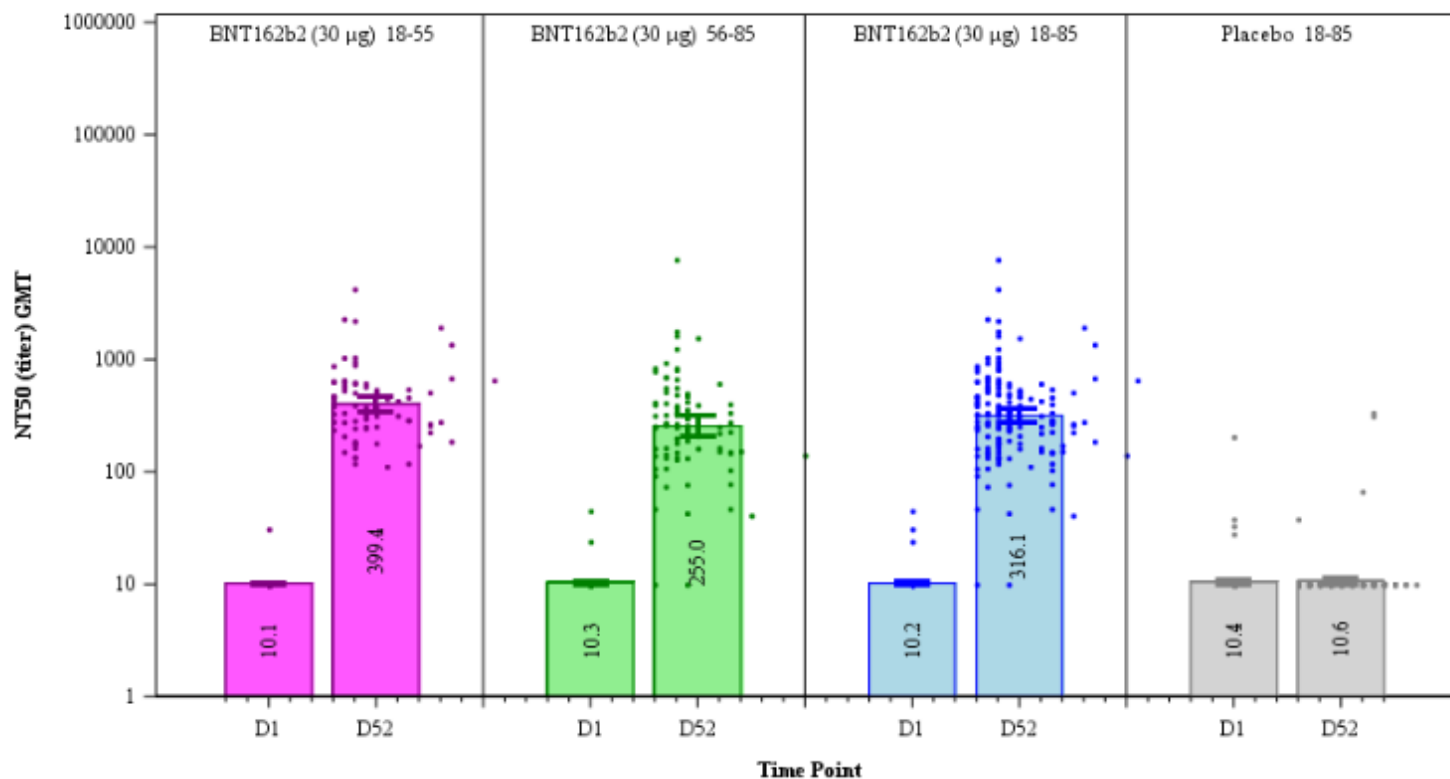


Figure 9. Participants Reporting Local Reactions, by Maximum Severity, Within 7 Days After Each Dose, by Age Group – Reactogenicity Subset for Phase 2/3 Analysis – Safety Population Age Group: 16-55 Years

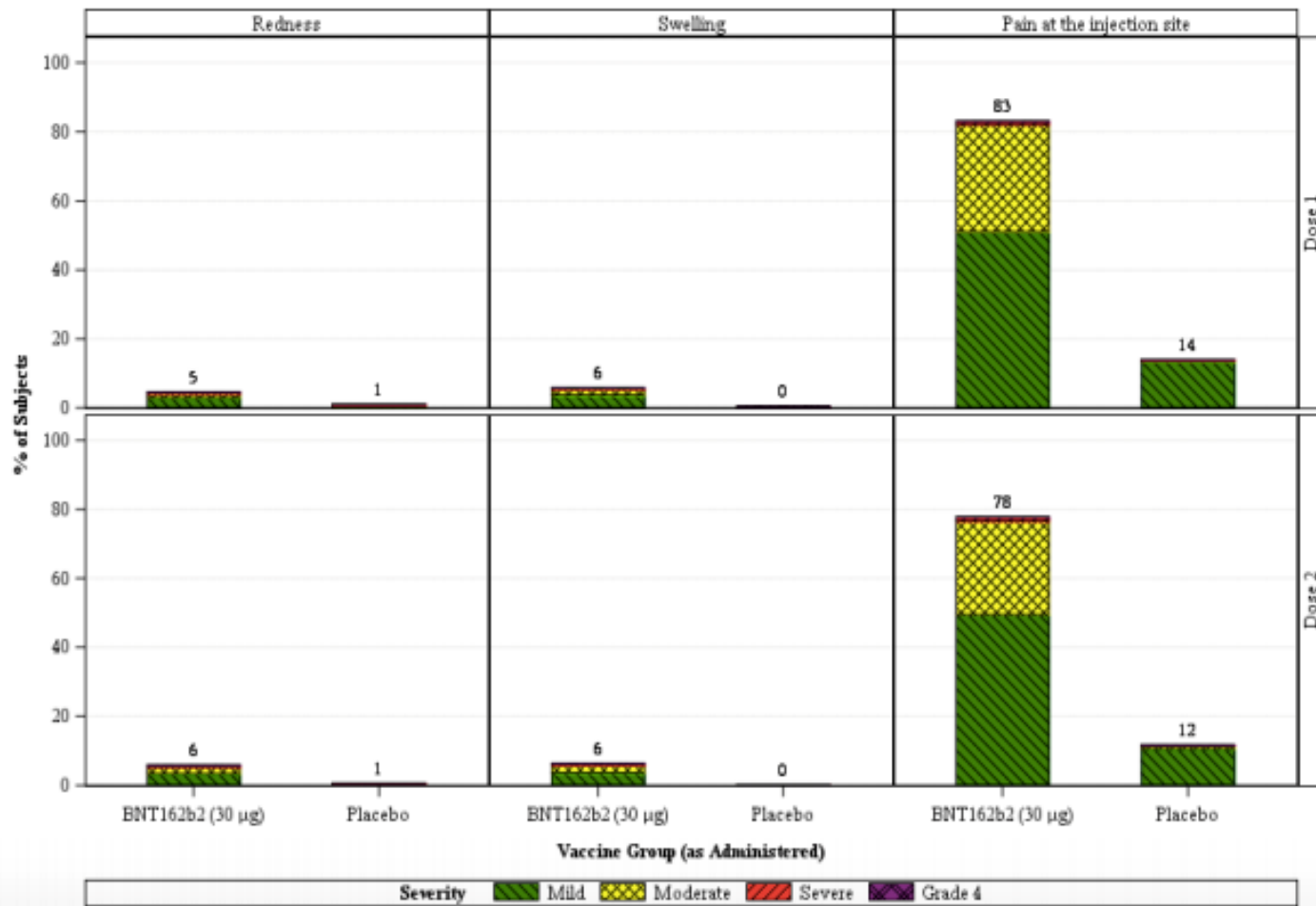


Figure 11. Participants Reporting Systemic Events, by Maximum Severity, Within 7 Days After Each Dose, by Age Group – Reactogenicity Subset for Phase 2/3 Analysis – Safety Population Age Group: 16-55 Years

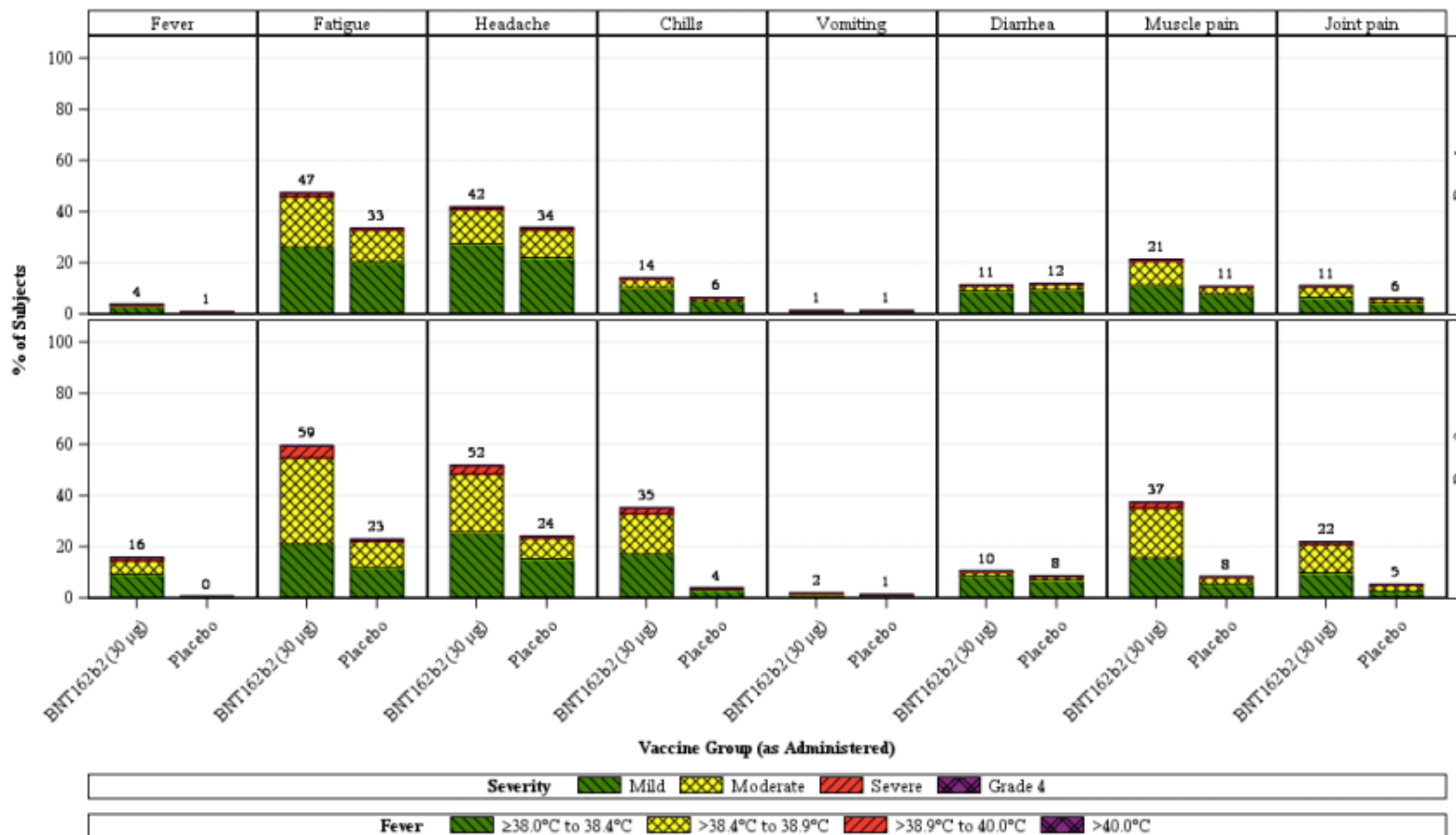


Table 6. Number (%) of Subjects Reporting at Least 1 Adverse Event From Dose 1 to 1 Month After Dose 2 – ~38000 Subjects for Phase 2/3 Analysis – Safety Population

Adverse Event	Vaccine Group (as Administered)	
	BNT162b2 (30 µg) (N ^a =18801) n ^b (%)	Placebo (N ^a =18785) n ^b (%)
Any event	5071 (27.0)	2356 (12.5)
Related ^c	3915 (20.8)	953 (5.1)
Severe	220 (1.2)	109 (0.6)
Life-threatening	18 (0.1)	20 (0.1)
Any serious adverse event	103 (0.5)	81 (0.4)
Related ^c	3 (0.0)	0
Severe	57 (0.3)	48 (0.3)
Life-threatening	18 (0.1)	19 (0.1)
Any adverse event leading to withdrawal	34 (0.2)	25 (0.1)
Related ^c	14 (0.1)	7 (0.0)
Severe	13 (0.1)	7 (0.0)
Life-threatening	2 (0.0)	4 (0.0)

Table 9. Vaccine Efficacy – First COVID-19 Occurrence From 7 Days After Dose 2 – Subjects Without Evidence of Infection Prior to 7 Days After Dose 2 – Evaluable Efficacy (7 Days) Population

Efficacy Endpoint	Vaccine Group (as Randomized)				VE (%)	(95% CI ^e)	Pr (VE >30% data) ^f
	BNT162b2 (30 µg) (N ^a =18198)		Placebo (N ^a =18325)				
	n1 ^b	Surveillance Time ^c (n2 ^d)	n1 ^b	Surveillance Time ^c (n2 ^d)			
First COVID-19 occurrence from 7 days after Dose 2	8	2.214 (17411)	162	2.222 (17511)	95.0	(90.3, 97.6)	>0.9999

Table 16. Vaccine Efficacy – First Severe COVID-19 Occurrence From 7 Days After Dose 2 – Subjects Without Evidence of Infection Prior to 7 Days After Dose 2 – Evaluable Efficacy (7 Days) Population

Efficacy Endpoint	Vaccine Group (as Randomized)				VE (%)	(95% CI ^e)	Pr (VE >30% data) ^f
	BNT162b2 (30 µg) (N ^a =18198)		Placebo (N ^a =18325)				
	n1 ^b	Surveillance Time ^c (n2 ^d)	n1 ^b	Surveillance Time ^c (n2 ^d)			
First severe COVID-19 occurrence from 7 days after Dose 2	1	2.215 (17411)	3	2.232 (17511)	66.4	(-124.8, 96.3)	0.7429

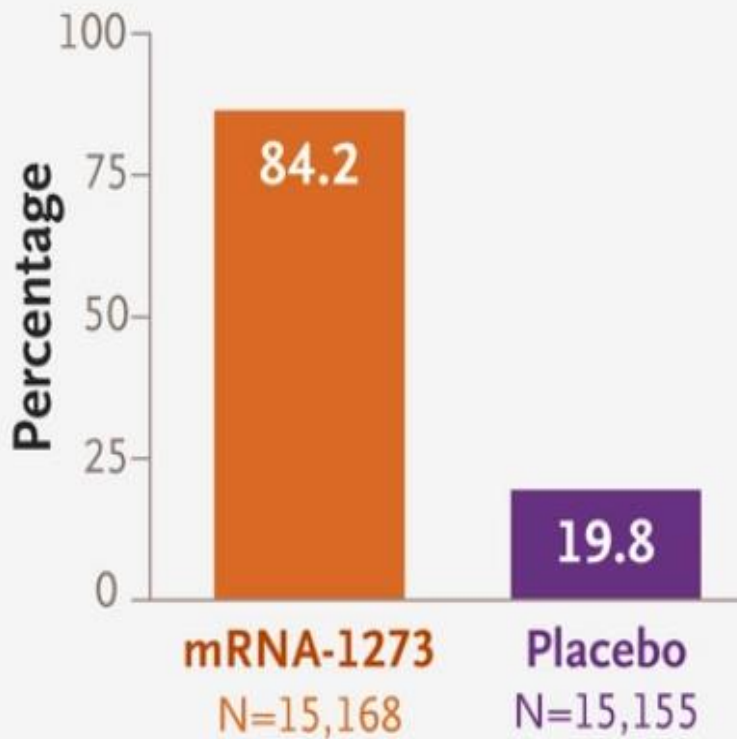
Table 18. Vaccine Efficacy – First Severe COVID-19 Occurrence After Dose 1 – Dose 1 All-Available Efficacy Population

Efficacy Endpoint Subgroup	Vaccine Group (as Randomized)				VE (%)	(95% CI ^e)
	BNT162b2 (30 µg) (N ^a =21669)		Placebo (N ^a =21686)			
	n1 ^b	Surveillance Time ^c (n2 ^d)	n1 ^b	Surveillance Time ^c (n2 ^d)		
First severe COVID-19 occurrence after Dose 1	1	4.021 (21314)	9	4.006 (21259)	88.9	(20.1, 99.7)
After Dose 1 to before Dose 2	0		4		100.0	(-51.5, 100.0)
Dose 2 to 7 days after Dose 2	0		1		100.0	(-3800.0, 100.0)
≥7 Days after Dose 2	1		4		75.0	(-152.6, 99.5)

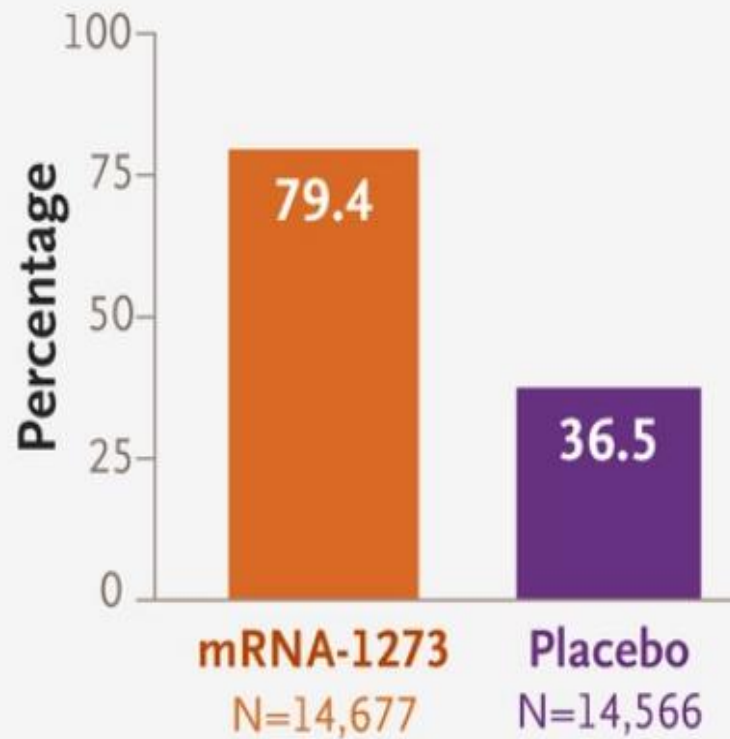
mRNA-1273 (Moderna)

- mRNA vaccine EUA submitted 11/30/20
- Reviewed 12/17/20 (54 pages)
- mRNA -1273-P301 is a 30,000 participant study done at 99 sites in the US (1:1 randomization)
- 80% White, 20% Hispanic, 25% >65 yo
- 26% with comorbidity, 6.7% severely obese, 13 pregnancies (2 abortions: 1 spontaneous (both in placebo))
- Solicited AE in all patients
- SAE, deaths, **treatment limiting AEs (0.1%) - same in both arms**

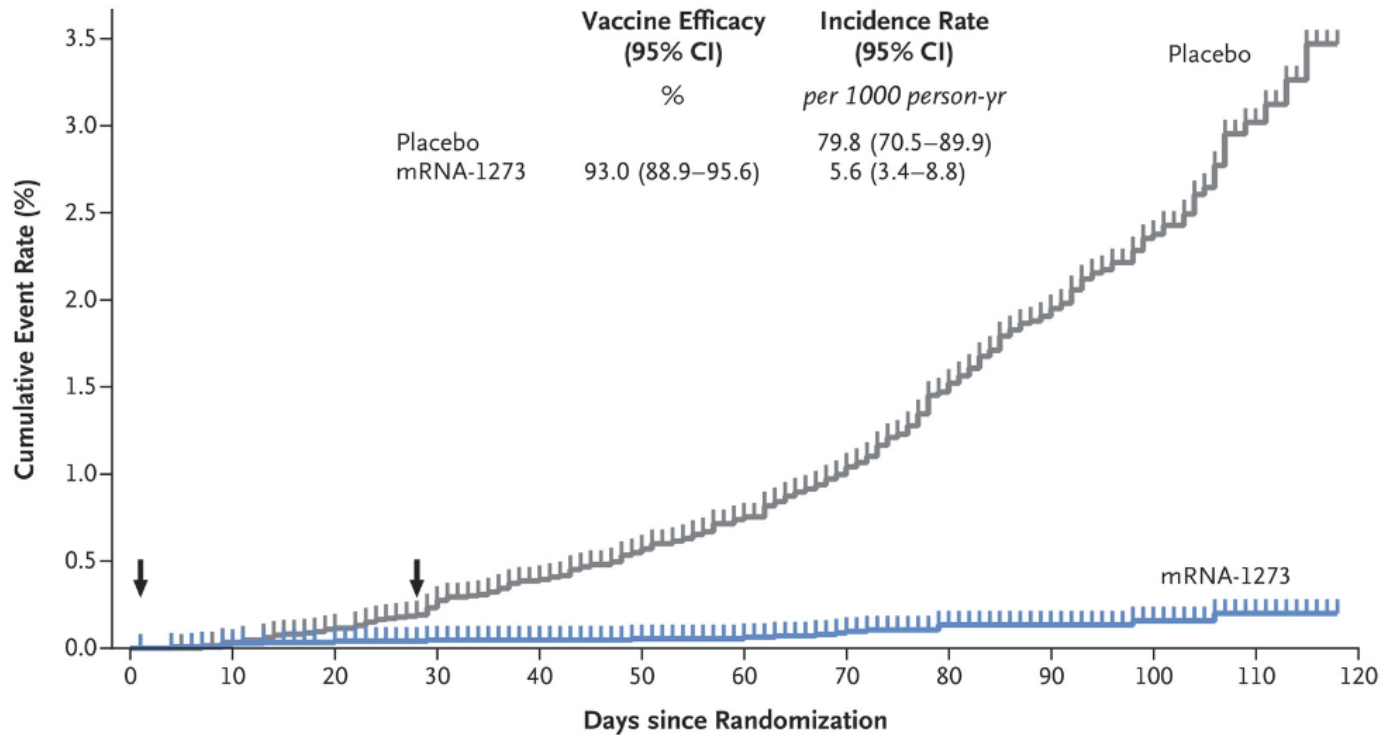
Injection-Site Adverse Events after First Dose



Systemic Adverse Events after Second Dose



B Modified Intention-to-Treat Analysis

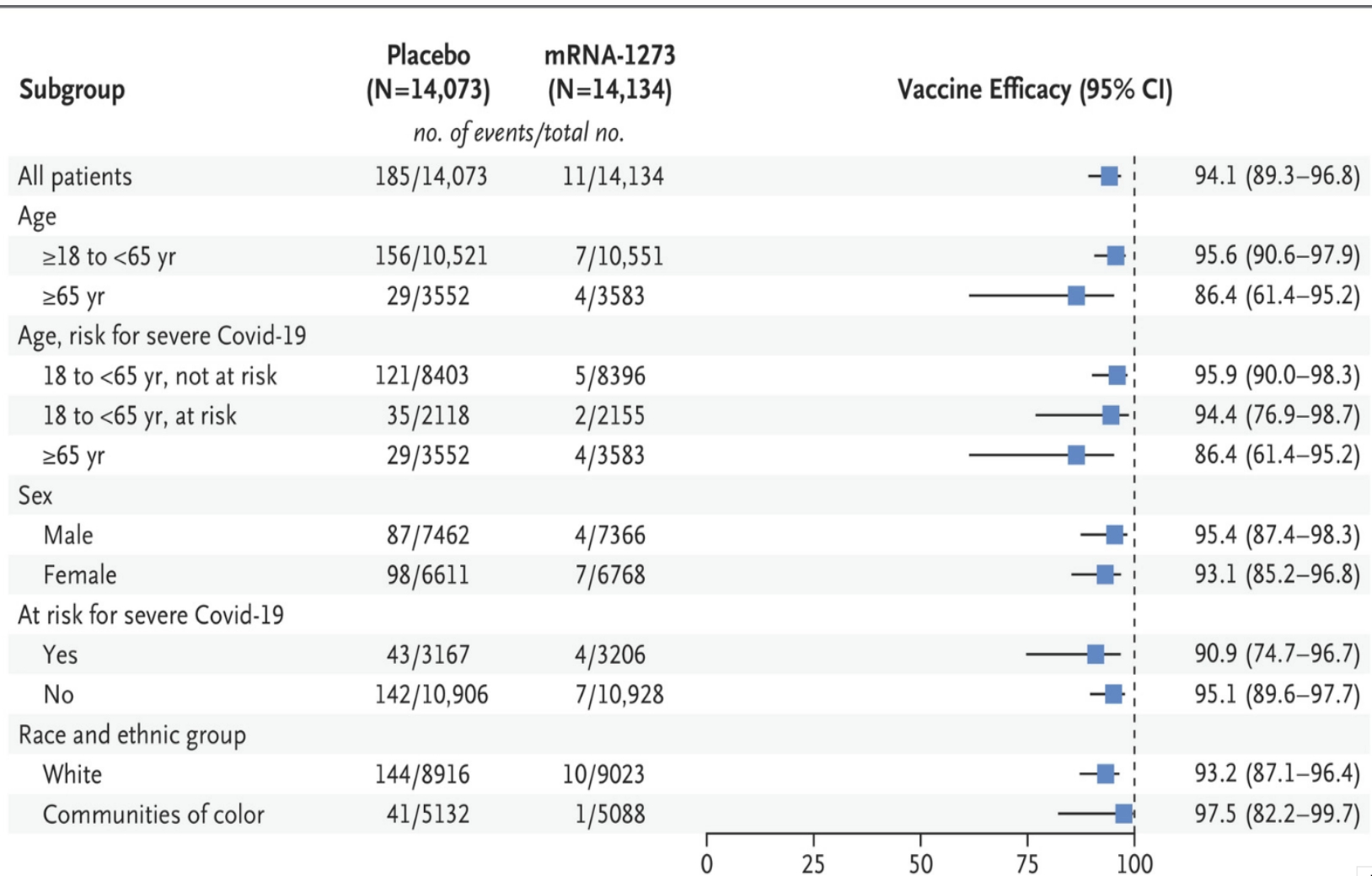


No. at Risk

	0	10	20	30	40	50	60	70	80	90	100	110	120
Placebo	14,598	14,590	14,567	14,515	13,806	12,352	12,694	11,450	9736	6729	4067	1200	0
mRNA-1273	14,550	14,543	14,532	14,504	13,825	13,398	12,791	11,573	9911	6871	4179	1238	0

Covid-19 Onset	Placebo (N=14,598)	mRNA-1273 (N=14,550)
Randomization to 14 days after dose 1	11	5
14 Days after dose 1 to dose 2	35	2
Dose 2 to 14 days after dose 2	19	0
Starting 14 days after dose 2	204	12
Total (any time after randomization)	269	19





ChAdOx1 (Oxford/Astra Zeneca)

- Chimpanzee adenovirus chimeric vaccine
- Approved in Canada, UK
- ChAdOx1 combination of 5 studies in UK, SA, Brazil (12k patients)
- 18-55 yo cohort planned as single-dose cohort. The protocol was modified in July 2020 to offer a 2nd dose (after robust booster responses identified in early immunogenicity cohorts)
- >80% white, average BMI 25, female, >80% HCW
- **70% efficacy but only approx. 10% against B1.351 variant**

Johnson and Johnson/Janson

- Efficacy 72% in the US, 66% in Latin America, **57% in South Africa (due to prevalence of B.1.351—95% cases with the variant)**
 - 66% effective overall at preventing moderate/severe COVID-19 (**85% effective against severe**)
 - Onset of protection observed as early as day 14
 - No cases reported after day 49
 - Consistent protection across race, age (including >60yo)
- Viable in the refrigerator for 3 months
- US has agreed to purchase 100 million doses
 - **One dose!**

Novavax

- Phase 3: 89.3% efficacy
 - Trial done in UK with the UK (501Y.V1) variant dominating (>50% cases)
- Phase 2b:
 - South Africa with 93% cases attributable to SA (501Y.V2) variant
 - 60.1% efficacy in HIV negative
 - **49.4% overall**
 - **Note: 1/3 of participants had prior COVID-19 infection indicating prior infection may not protect against 501Y.V2 variant**

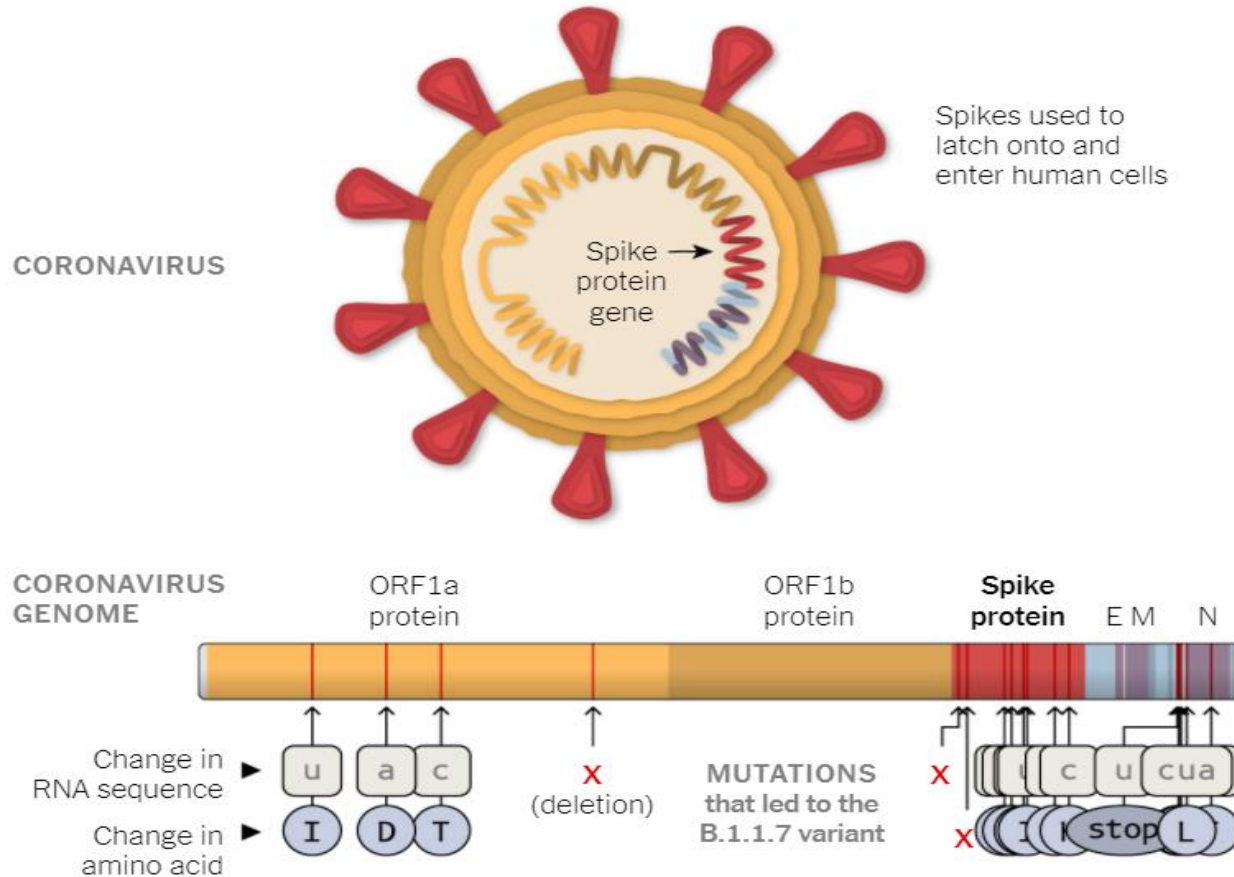
Description	Pfizer-BioNTech COVID-19 vaccine	Moderna COVID-19 vaccine
mRNA	Nucleoside-modified mRNA encoding the viral spike (S) glycoprotein of SARS-CoV-2	Nucleoside-modified mRNA encoding the viral spike (S) glycoprotein of SARS-CoV-2
Lipids	2[(polyethylene glycol)-2000]-N,N-ditetradecylacetamide	PEG2000-DMG: 1,2-dimyristoyl-rac-glycerol, methoxypolyethylene glycol
	1,2-distearoyl-sn-glycero-3-phosphocholine	1,2-distearoyl-sn-glycero-3-phosphocholine
	Cholesterol	Cholesterol
	(4-hydroxybutyl)azanediylbis(hexane-6,1-diyl)bis(2-hexyldecanoate)	SM-102: heptadecan-9-yl 8-((2-hydroxyethyl)(6-oxo-6-(undecyloxy) hexyl) amino) octanoate
Salts, sugars, buffers	Potassium chloride	Tromethamine
	Monobasic potassium phosphate	Tromethamine hydrochloride
	Sodium chloride	Acetic acid
	Dibasic sodium phosphate dihydrate	Sodium acetate
	Sucrose	Sucrose

Goals of Mass Vaccination

- Decrease Morbidity
 - Vulnerable, elderly, high risk, essential, socially mobile
- Decrease Mortality
 - Elderly, vulnerable, high risk
- **Decrease the Transmission/lower R0**
 - Socially mobile, essential, 'anti-maskers/denialist/party animals'

A New Variant

A series of tiny mutations found in many British samples of the coronavirus may help the virus spread more easily. The coronavirus variant is known as B.1.1.7.



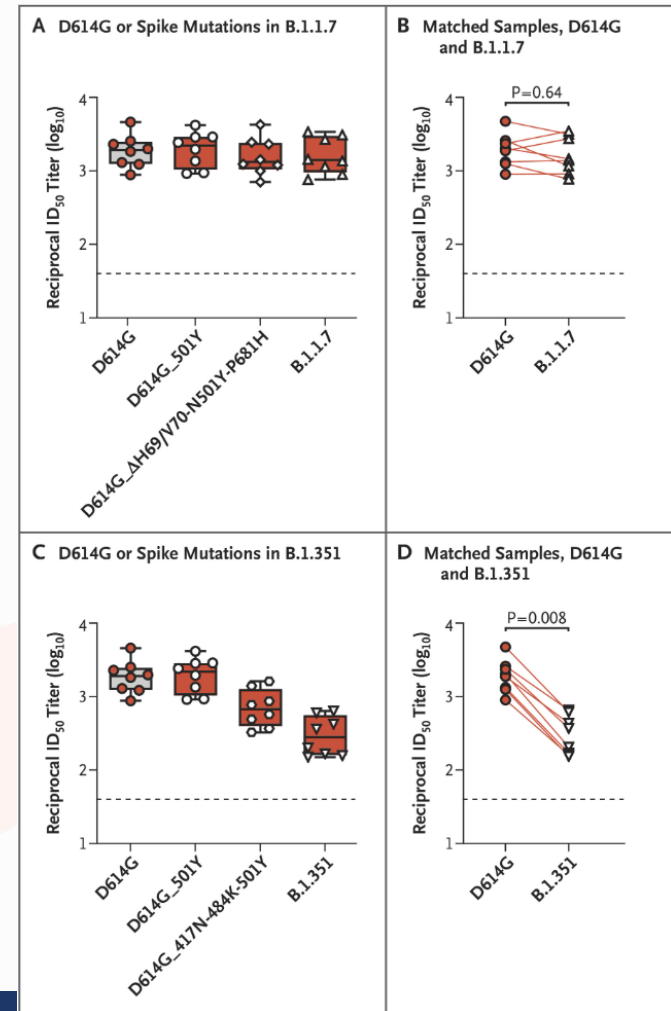
By Jonathan Corum | Source: Andrew Rambaut et al., Covid-19 Genomics Consortium U.K.

New Variants

- **B.1.1.7 lineage** (UK variant): RBD mutation at position 501 (N501Y)
 - **Increased transmissibility**
- B.1.351 lineage (South Africa or Zambia variant): multiple mutations in the spike protein (K417T, E484K, N501Y)
 - **Some evidence that the E484K may affect neutralization by some polyclonal/monoclonal antibodies**
- P.1 lineage (Brazil variant): 3 mutations in RBD (K417T, E484K, N501Y)
 - **Concern for reinfection as well as increase in transmissibility**
- <https://www.cdc.gov/coronavirus/2019-ncov/more/science-and-research/scientific-brief-emerging-variants.html>

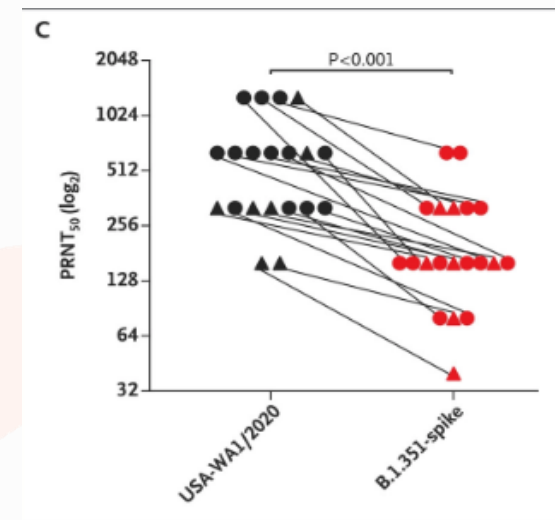
Serum Neutralizing Activity Elicited by mRNA-1273 Vaccine — Preliminary Report

- Serum obtained 7d after 2nd vax
- Recombinant virus
- Neutralization of B1.117
 - 1.2 fold reduction of titer
- Neutralization of B1.351
 - 6.4 fold reduction of titer
 - GMNT was 1:290
- **All samples were neutralized**



Neutralizing Activity of BNT162b2-Elicited Serum — Preliminary Report

- Engineered mutations into USA-WA1/2020
- 50% plaque reduction neutralization testing
- Sera 2-4 weeks after 2nd Pfizer vax
- GMNT for USA-WA1/2020 was 501
- GMNT for B1.351 was 184
 - Weaker by 2/3



Where do refugees fit in all of this?

Implementation in the Refugee Community

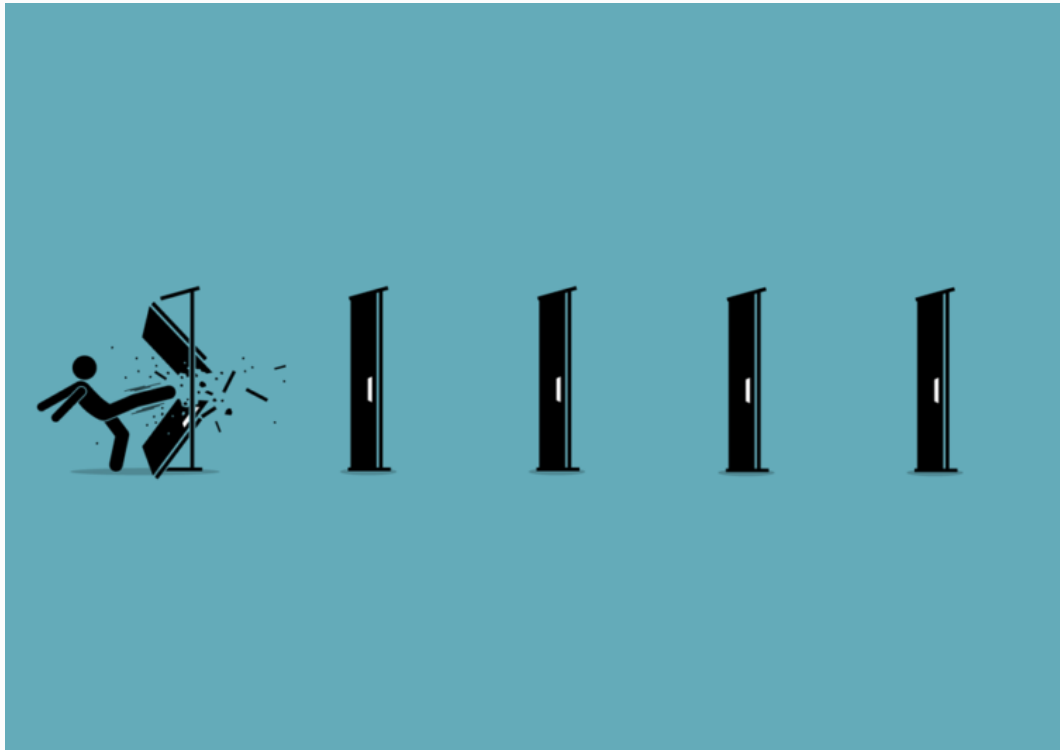
- Multiple barriers to care in general, many of which are illuminated by COVID and vaccination procedures
- Limited information regarding knowledge, attitudes, and practices surrounding vaccines
- Historic mistrust in certain communities
- Turbulent US political environment
- Novelty of COVID-19 vaccines

- Refugee, immigrant, and migrant populations are not homogeneous
 - Attitudes towards vaccinations are varied
 - Need to be familiar with each varying community needs and concerns

Hesitation



Barriers



Hesitation



Hesitation in the Refugee Community

Advocating Agency

Paternalism

Hesitation in the Refugee Community

Advocating Agency

~~Paternalism~~

Hesitation in the Refugee Community

What do you know?

Hesitation in the Refugee Community

<https://www.cdc.gov/coronavirus/2019-nCoV/hcp/vaccination.html>

The screenshot shows the CDC website's 'COVID-19' section for 'Healthcare Workers'. The page is titled 'COVID-19 Vaccination' and is updated as of Dec. 29, 2020. It features a navigation menu with options like 'Your Health', 'Vaccines', 'Cases & Data', 'Work & School', 'Healthcare Workers', 'Health Depts', and 'More'. The 'Healthcare Workers' section is active, showing a sidebar with categories such as 'Testing', 'Vaccination', 'Clinical Care', 'Infection Control', 'First Responders', 'Exposure in Healthcare Settings', 'Optimizing PPE Supplies', 'Facility Planning & Operations', and 'Non-Hospital Settings'. The main content area includes a 'Protect Yourself, Your Patients, and Family' section with a 'Vaccines and Your Health' button, and a 'Prepare for COVID-19 Vaccination' section with a 'For Healthcare Professionals' button. Below these are three columns of links: 'Getting Vaccinated' (with a sub-link 'How CDC Is Making COVID-19'), 'Preparing Your Patients' (with a sub-link 'Talking to Recipients about'), and 'COVID-19 Vaccine Resources for Providers'.



Hesitation in the Refugee Community

Vaccines & Immunizations

CDC > COVID-19 Vaccination > Recipient Education



🏠 COVID-19 Vaccination

Product Info by US Vaccine +

Clinical Care +

Provider Requirements and Support +

Training and Education +

Recipient Education -

mRNA COVID-19 Vaccines

Viral Vector COVID-19 Vaccines

Making a Strong Recommendation for COVID-19 Vaccination

Understanding and Explaining mRNA COVID-19 Vaccines

Messenger RNA vaccines—also called mRNA vaccines—are some of the first COVID-19 vaccines authorized for use in the United States. This page provides vaccine information for healthcare professionals and vaccine providers and tips for explaining mRNA vaccines to patients and answering questions about how mRNA vaccines work, their safety profile, and common misconceptions.

Key Points to Share with Your Patients

In addition to the following key messages, you can refer your patients with questions to [CDC's COVID-19 mRNA vaccine webpage](#).

- Like all vaccines, COVID-19 mRNA vaccines have been rigorously tested for safety before being authorized for use in the United States.
- mRNA technology is new, but not unknown. They have been studied for more than a decade.
- mRNA vaccines do not contain a live virus and do not carry a risk of causing disease in the vaccinated person.

Hesitation in the Refugee Community

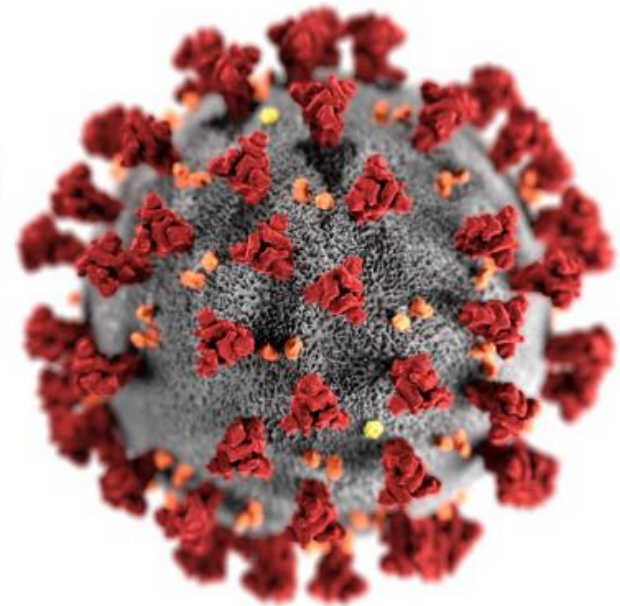
COVID
CORONAVIRUS
DISEASE **19**

What Clinicians Need to Know About the Pfizer-BioNTech COVID-19 Vaccine

Amanda Cohn, MD

Sarah Mbaeyi, MD, MPH

December 13, 2020



Hesitation in the Refugee Community

What do they know?

Hesitation in the Refugee Community

- Heterogenous groups have heterogeneous needs and hesitations
 - Need to assess to avoid generalizations
- Systemic distrust
 - Doctors may be present in torture
 - May be fleeing an antagonistic government
 - May be traumatized by US government
 - Many predators financial and physical
 - Sharing information could lead to judgement or antagonism

Hesitation in the Refugee Community

- Addressing systemic distrust
 - Avoid wearing a white coat
 - Hear and address their needs (may be far from your specialty)
 - Meet in nonclinical settings, including home visits
 - See family, context
 - Establish community centered activities
 - Tutoring, soccer, language classes, support group, gardening
 - Cultivate agency
 - Avoid judgement
 - Be consistent
 - Good rapport can take years
 - If lacking rapport, reach out to a community leader/advocate

Hesitation in the Refugee Community

- Heterogenous groups have heterogeneous needs and hesitations
- Congolese focus group
 - One of our most hesitant groups
 - 20 people involved, some of our most active/receptive community
 - 3 had talked about vaccination with a healthcare professional prior to this meeting

Hesitation in the Refugee Community

- Congolese focus group
 - Nearly all had seen social media posts decrying vaccines
 - Often in French or Swahili, sometimes English
 - Often invoke religion, particularly Christianity

Hesitation in the Refugee Community

Hear The Lord Jesus.com

Surely the Lord GOD will do nothing, but he revealeth his secret unto his servants the prophets!

Search

[How To Be Saved](#)

[The Antichrist](#)

[The False Prophet](#)

[The False Rapture/Alien Invasion](#)

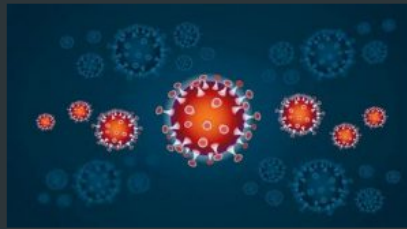
[Heaven And Hell Testimonies](#)

[World Wide Earth Quake Prophecies](#)

Posted on [March 20, 2020](#)

[← Previous](#) [Next →](#)

Prophecies About A New Virus And Covid-19 Coronavirus Vaccine Warnings

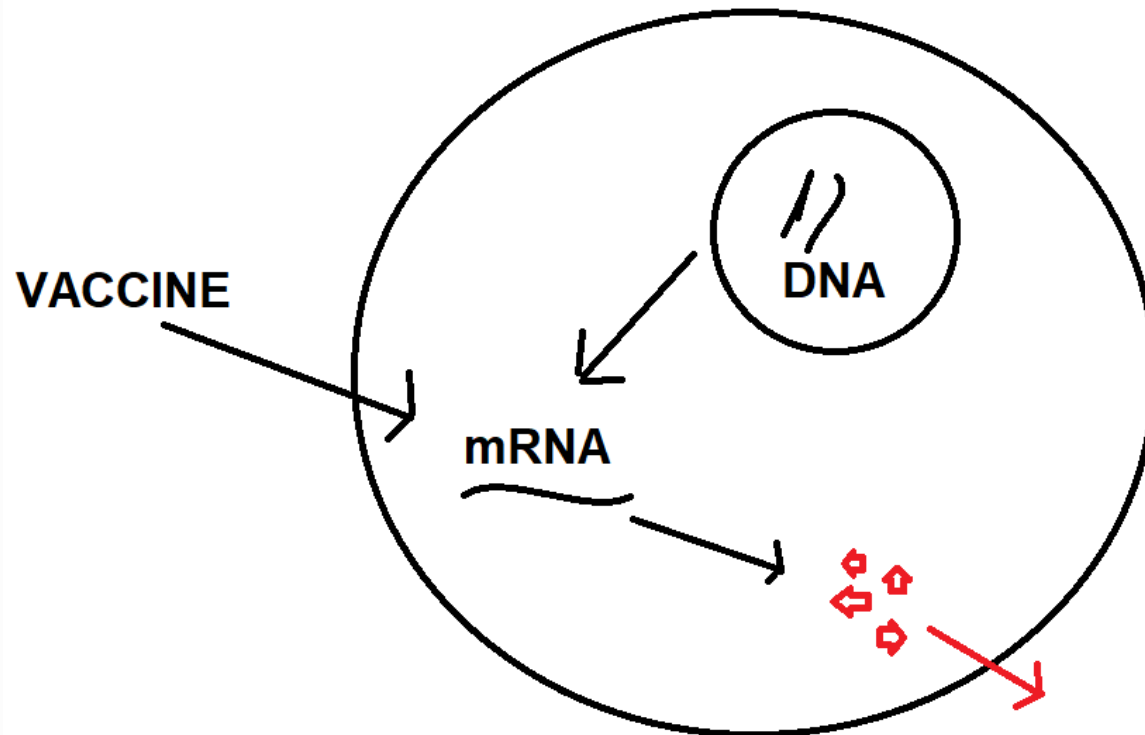


Do not take any vaccines for the Corona Virus or any of the other coming plagues. (See very last article below by Dr Mercola with comments from Senator Robert Kennedy Jr)

Hesitation in the Refugee Community

- Congolese focus group concerns from social media
 - Will this be mandatory? (No, vaccination requires consent.)
 - Will this cost money? (No, it is free.)
 - Will this change my DNA? Give the mark of the beast?

Hesitation in the Refugee Community



Hesitation in the Refugee Community

- Congolese focus group concerns from social media
 - Will this be mandatory? (No, vaccination requires consent.)
 - Will this cost money? (No, it is free.)
 - Will this change my DNA? Give the mark of the beast? (No, it does not interact with DNA.)
 - Are there microchips to track me? (No, the vials and the fluid are clear and there is nothing to see in them. We have given these vaccines to other people and received them ourselves. All ingredients in vaccines are public knowledge. Messenger RNA is a medical term.)

Hesitation in the Refugee Community

- Social media posts/ memes
 - What is in the vaccine?
Purported pork products,
aborted fetal tissue?
 - No pork
 - No fetal tissue
 - Infertility from S-protein?
 - No

Pope Calls Coronavirus Vaccinations an Ethical Obligation

Saying he will be vaccinated himself next week, Francis described the refusal to get the vaccine as suicidal.



Hesitation in the Refugee Community

- Vaccine effects
 - Is this going to give me COVID? Will I need to quarantine after vaccination? (No, this is not an COVID infection, and it will not make you contagious. You will not need to quarantine.)

Hesitation in the Refugee Community

- Social media posts/ memes
 - What about side effects? Death, Bell's palsy (or stroke), allergy?

Hesitation in the Refugee Community

- Social media posts/ memes
 - What about side effects? Death, Bell's palsy (or stroke), allergy?

 Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

Search

[A-Z Index](#)

[Advanced Search](#)

Morbidity and Mortality Weekly Report (*MMWR*)

CDC



First Month of COVID-19 Vaccine Safety Monitoring — United States, December 14, 2020–January 13, 2021

Early Release / February 19, 2021 / 70

Julianne Gee¹; Paige Marquez²; John Su¹; Geoffrey M. Calvert¹; Ruiling Liu¹; Tanya Myers¹; Narayan Nair²; Stacey Martin¹; Thomas Clark¹; Lauri Markowitz¹; Nicole Lindsey¹; Bicheng Zhang¹; Charles Licata¹; Amelia Jazwa¹; Mark Sotir¹; Tom Shimabukuro¹ ([View author affiliations](#))

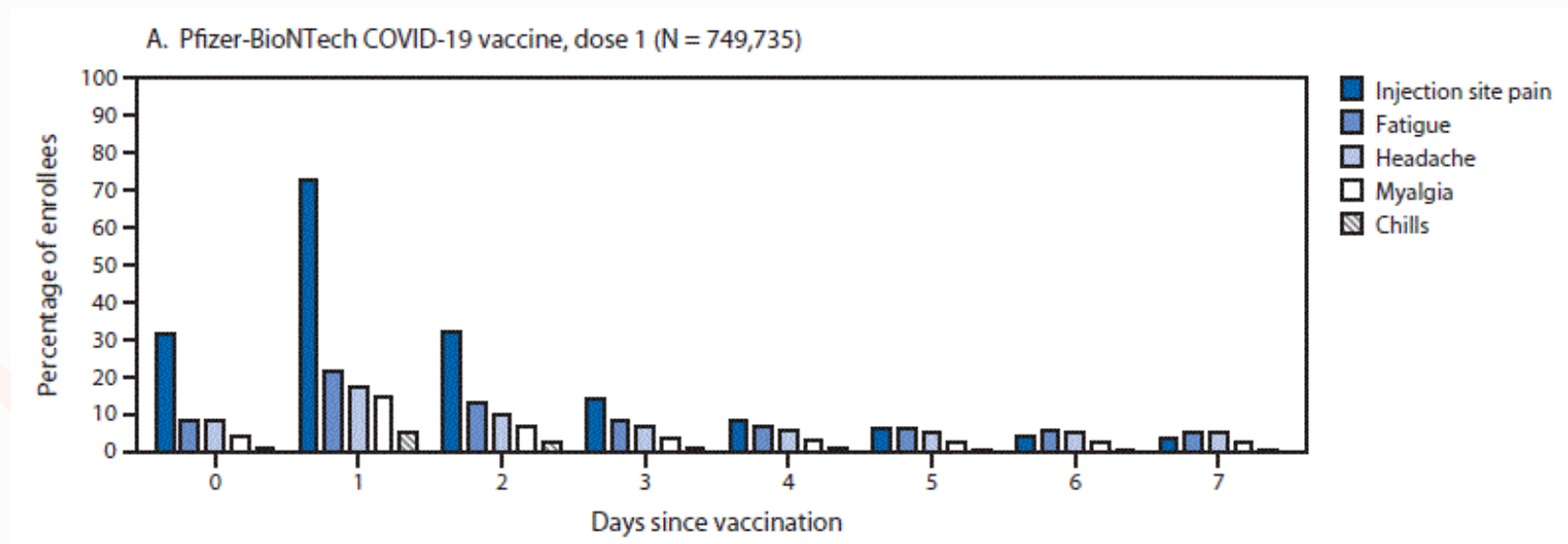
[View suggested citation](#)

Summary

Article Metrics

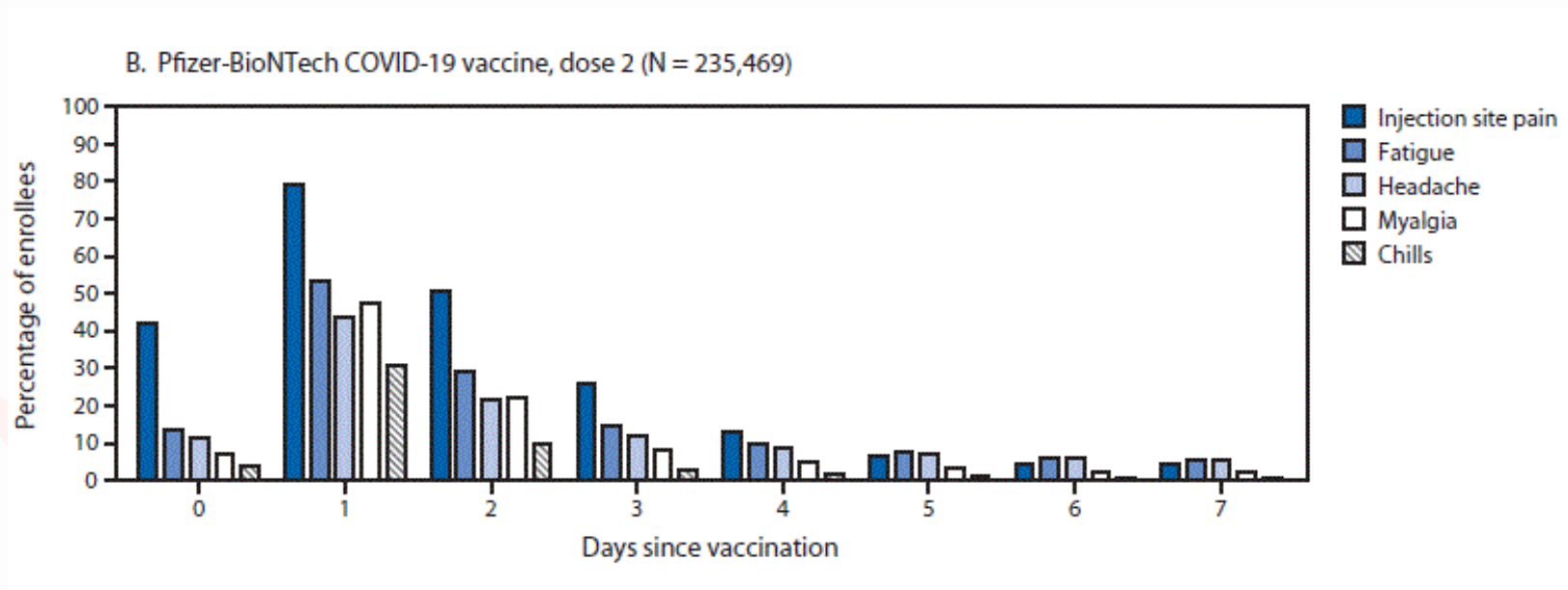
Hesitation in the Refugee Community

- Social media posts/ memes
 - What about side effects? Death, Bell's palsy (or stroke), allergy?



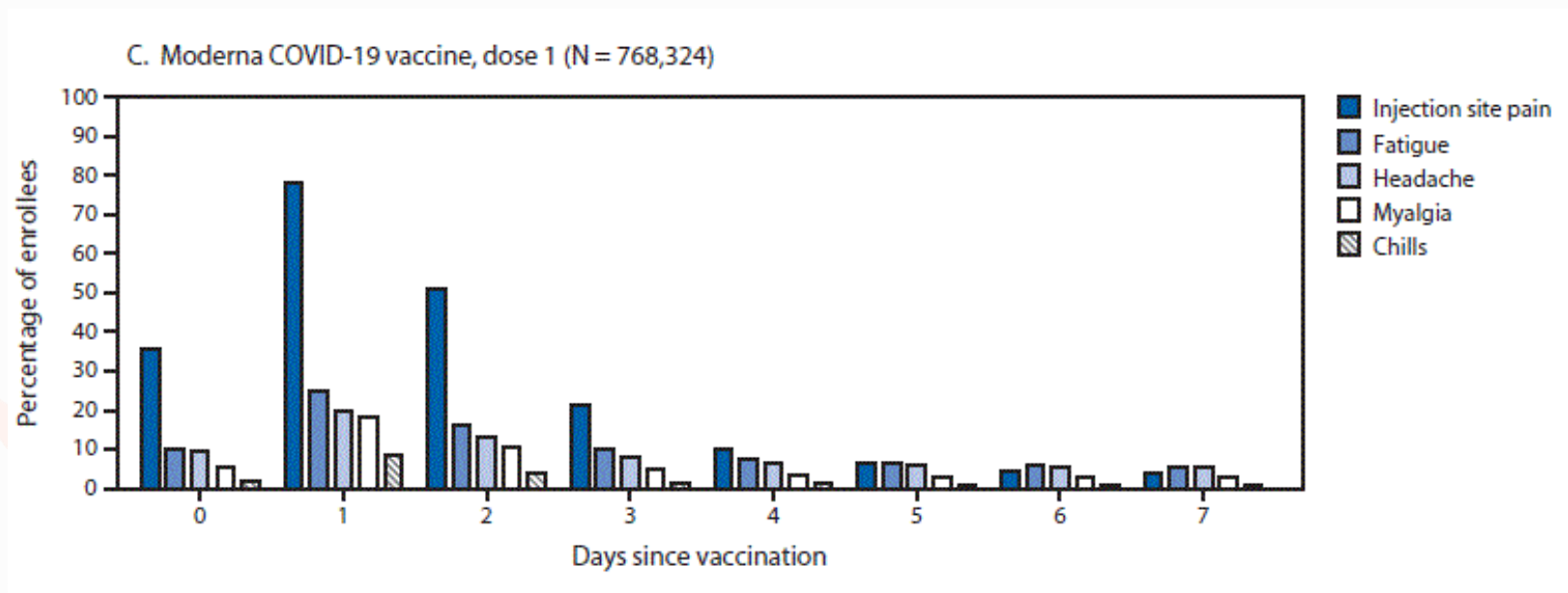
Hesitation in the Refugee Community

- Social media posts/ memes
 - What about side effects? Death, Bell's palsy (or stroke), allergy?



Hesitation in the Refugee Community

- Social media posts/ memes
 - What about side effects? Death, Bell's palsy (or stroke), allergy?



Hesitation in the Refugee Community

- Social media posts/ memes
 - What about side effects? Death, Bell's palsy (or stroke), allergy?
 - Bell's palsy
 - Not a stroke
 - Noted in 4 people in Moderna vaccine trial out of 30,000
 - This could be normal population variance

Hesitation in the Refugee Community

- Social media posts/ memes
 - What about side effects? Death, Bell's palsy (or stroke), allergy?
 - Anaphylaxis
 - Sixty-two reports of anaphylaxis have been confirmed, 46 after receipt of the Pfizer-BioNTech vaccine and 16 after receipt of the Moderna vaccine
 - 4.5 cases per million doses administered, is within the range reported after receipt of inactivated influenza vaccine (1.4 per million), pneumococcal polysaccharide vaccine (2.5 per million), and live attenuated herpes zoster vaccine (9.6 per million)
 - Effective treatments for anaphylaxis exist – they live

Hesitation in the Refugee Community

- Social media posts/ memes
 - What about side effects? Death, Bell's palsy (or stroke), allergy?
- Elderly deaths
 - Norwegian study suggests a handful of people had died following vaccination
 - Very frail, elderly patients
 - No controls
 - Systemic effects may have been related but difficult to show clear link

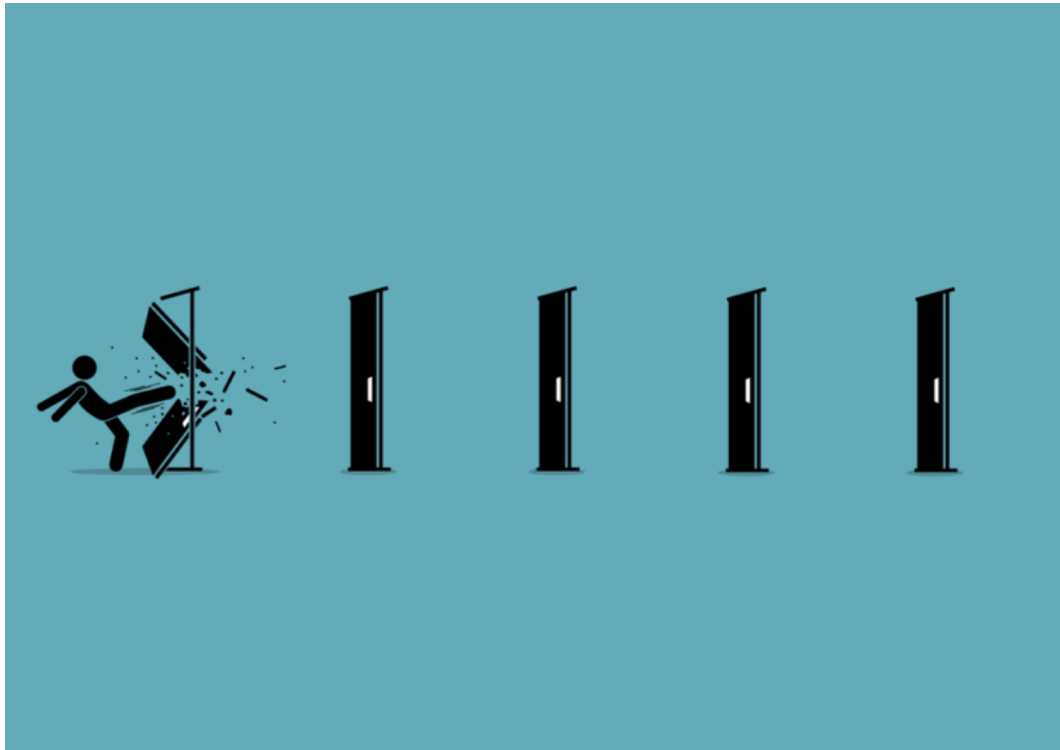
Hesitation in the Refugee Community

- While not formally proven yet, it seems likely vaccination decreased viral burden and decreases ability to transmit infection to others
- CDC does not require quarantine for vaccinated people after exposure
- Appealing to health of neighbor can help
- Idea that they could prevent someone else from being sick appears to be more effective than personal worry

Hesitation in the Refugee Community

- Benefits of Vaccination
 - May help prevent spread to other people you care about
 - Avoid missed days of work/ missed pay
 - Long term functionality is protected (brain fog, functional capacity)
 - People who get the vaccination don't die from COVID

Barriers



Implementation in the Refugee Community

- Policy competence
 - What phase are we in?
 - Who is included?
 - Different from state to state
 - Often unclear even to providers
 - Interpreters are Phase 1a
 - Volunteers working frontline healthcare should be considered
 - Check health department guidance

Phase 1a mission-critical workers and individuals include:

- 65+ year olds, regardless of health status or preexisting conditions
- Anesthesiology assistants, registered cardiovascular invasive specialists, and operating room staff
- Athletic Trainers
- American Sign Language (ASL) and other interpreters in healthcare facilities
- Autopsy room staff, coroners, embalmers, and funeral home staff at risk of exposure to bodily fluids
- Chiropractors
- Dentists and dental hygienists and technicians
- Dietary and food services staff in healthcare facilities
- Environmental services staff in healthcare facilities
- Harbor pilots
- Home health and hospice workers
- Hospital transport personnel
- Hospital inpatients 65 and older
- Laboratory personnel and phlebotomists
- Licensed dietitians
- Long-Term Care Facility (LTCF) residents and staff
- Medical assistants
- Medical first responders (paid and volunteer): EMS; fire department and law enforcement personnel who provide emergency medical care
- Nurses, nurse practitioners, and nurse's aides/ assistants
- Opticians and optometrists and assistants/ technicians
- Home caregivers for children who have a tracheostomy, are ventilator-dependent or who have a [Medically Complex Children's Waiver](#). Requires a [medical provider's signed attestation](#) to confirm caregiver meets criteria.
- Persons providing medical care in correctional facilities and correctional officers
- Pharmacists and pharmacy technicians
- Physical and occupational therapists and assistants
- Physicians, including medical house staff (i.e., interns, residents, fellows), and physician assistants
- Podiatrists
- Public health healthcare workers who are frequently interacting with persons with potential COVID-19 infection
- Radiology technicians
- Respiratory care practitioners, such as respiratory therapists
- Speech language pathologists and assistants and audiologists
- State/local government employees and their contractors who are mission-critical for maintaining operations of COVID-19 vaccinations and testing in SC
- Students and interns of the above categories

Implementation in the Refugee Community

- Technological competence
 - Especially in elderly
 - May not know how to access scheduling
 - Register on site

⚠ VAMS is only compatible with the most current stable version of Edge, Chrome, Mozilla Firefox and Safari.

VAMS Vaccine Administration Management System

Welcome to VAMS

Welcome to the Vaccine Administration Management System (VAMS). Registering for this application allows for you to be pre-screened and, if qualified, register for an account and schedule your COVID-19 vaccination. Creating an account will allow for your State Health Department and The Centers for Disease Control and Prevention to collect your information to use in public health data analysis. Your name or other information that may identify you will not appear when we talk about the vaccine or results from the analyses.

Confirm the following questions to register your account.

* I have already registered in VAMS to receive my vaccination through another organization I work for.

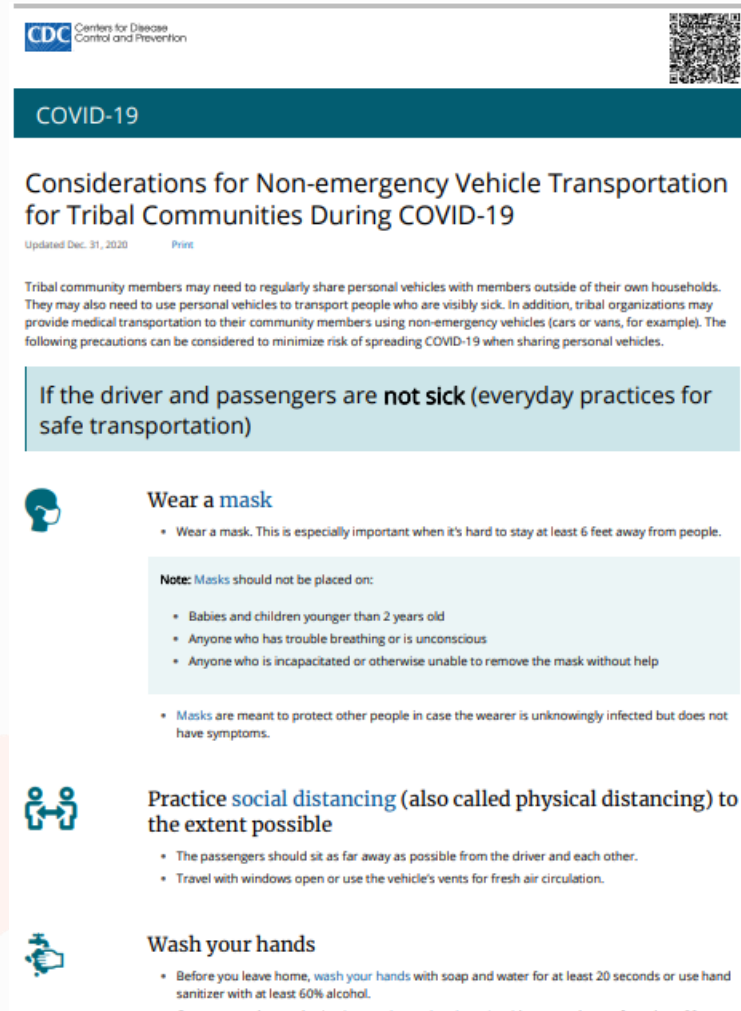
Yes
 No

* I have tested positive for the COVID-19 antibody.

Yes
 No

Implementation in the Refugee Community

- Transportation
 - Getting to the vaccination site and back
 - Group transport can be arranged but consider COVID precautions (spaced seating, masks, etc...)



CDC Centers for Disease Control and Prevention

COVID-19

Considerations for Non-emergency Vehicle Transportation for Tribal Communities During COVID-19

Updated Dec. 31, 2020 [Print](#)

Tribal community members may need to regularly share personal vehicles with members outside of their own households. They may also need to use personal vehicles to transport people who are visibly sick. In addition, tribal organizations may provide medical transportation to their community members using non-emergency vehicles (cars or vans, for example). The following precautions can be considered to minimize risk of spreading COVID-19 when sharing personal vehicles.

If the driver and passengers are **not sick (everyday practices for safe transportation)**

- Wear a mask**
 - Wear a mask. This is especially important when it's hard to stay at least 6 feet away from people.

Note: Masks should not be placed on:

 - Babies and children younger than 2 years old
 - Anyone who has trouble breathing or is unconscious
 - Anyone who is incapacitated or otherwise unable to remove the mask without help
 - Masks are meant to protect other people in case the wearer is unknowingly infected but does not have symptoms.
- Practice social distancing (also called physical distancing) to the extent possible**
 - The passengers should sit as far away as possible from the driver and each other.
 - Travel with windows open or use the vehicle's vents for fresh air circulation.
- Wash your hands**
 - Before you leave home, wash your hands with soap and water for at least 20 seconds or use hand sanitizer with at least 60% alcohol.

Implementation in the Refugee Community

- Language Services
 - Autonomy must not be jeopardized due to a language barrier
 - Resources (registration, consent) available in appropriate language
 - Challenging when dealing with varied small populations
 - <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/communication-toolkit.html> (doesn't list vaccine)
 - <https://switchboardta.org/blog/a-round-up-of-multilingual-resources-on-covid-19/> (pretty extensive)
 - Not everyone can read
 - Interpreters or phone lines at vaccination site (confirm this)

Implementation in the Refugee Community



Technical Assistance ▾ Evidence ▾ Learning Resources ▾

Blog

WANT NEW BLOG POSTS SENT
TO YOUR INBOX?

Subscribe

LOOKING FOR A SPECIFIC
BLOG POST?

TOPICS

A Round-Up of Multilingual Resources on COVID-19

9 Comments By Switchboard March 10, 2020



ဆေးကသံဉ်ဒီသဒေးလာ COVID-19 အင်္ဂါ



တၢ်တြီဆၢဒီသဒေးလၢတၢ်ဆါသတြီကီဝဲတၢ်ဝဲဒိဉ်မး. ဘၣ်ဆၣ်ဆဲးဆဲး
ဆဲးပဆိဉ်ဒီသဒေးခါလၢကဒီသဒေးပုၤလၢ COVID-19 လီၤ.

V



တၢ်ဆဲးန့ၢ်ကသံဉ်ဒီသဒေးခါလီၤလၢတလီၢ်တၢ်ဟ့ၣ်အပူၤဘၣ်န့ၣ်လီၤ.

ဖဲၣ်ဒရၢၣ်ကီၢ်စၢဖိဉ်ပုဒိဉ်ကကျိၢ်ဘၢမၤစၢနကသံဉ်ကသီအပူၤလီၤန့ၣ်တၢ်ကြးယုန့ၣ်တၢ်အပူၤ
မ့တမၤတလီၢ်န့ၣ်တၢ်အပူၤဘၣ်န့ၣ်ပူၤဟ့ၣ်မၤစၢတၢ်
တၢ်ကြးယုန့ၣ်တၢ်အပူၤလၢတၢ်လဲၤထီၣ်လီၤသးလၢ
ဝဲၤဒၢဖဲန့ၣ်လဲၤန့ၣ်ဒီသဒေးထဲကသံဉ်ဒီသဒေးအခါအခါဘၣ်န့ၣ်လီၤ.



နကလီၣ်ဆဲးကသံဉ်ခဲဘျီလီၤ.

နကလီၣ်ဆဲးကသံဉ်ဒီသဒေးခဲဘျီ. တၢ်ဆၢကတီၢ်ကယံၤထီၣ်သးသၢတုၤလျှံန့ၣ်လီၤ.



ကသံဉ်ဒီသဒေးတဖၣ်မၤတၢ်တုၤလီၤတီၤလီၤန့ၣ်လီၤ.

ကသံဉ်ဒီသဒေးတဖၣ်မၤတၢ်တုၤလီၤတီၤလီၤ ၉၄ တုၤ ၉၅ မျးကယၤလီၤ. ဆဲးရဲကတၢ်ဆိဉ်တၢ်ဆိဉ်ဒီသဒေးတၢ်ကရၢကရီ
(U.S. Food and Drug Administration (FDA)) ဟ့ၣ်မိဟ့ၣ်ကမီၤကသံဉ်ဒီသဒေးတဖၣ်လၢတၢ်ကစူၤကဆိးဝဲဂ့ၢ်
ကိၢ်ဆူဆၢကတီၢ်ဒီတၢ်တဖၣ်တၢ်ပူၤဖျဲးတၢ်လီၤဘၣ်ယိဉ်လၢအန့ၣ်န့ၣ်ကလဲၢ်တဖၣ်ဘၣ်န့ၣ်လီၤ. ပူၤမၤတၢ်မိခဲဉ်နီၤလီၤဆီ
လီၤသးလၢအသဘူတဖၣ်ဟံၣ်ကိၢ်ဟံၣ်က့ၢ်တၢ်ဆဲးတုၤထီၣ်ဒီဘၢပူၤဖျဲးလၢအပတီၢ်ထီၣ်ဒီတၢ်မၤတၢ်တုၤလီၤတီၤလီၤတၢ်
တဖၣ်န့ၣ်လီၤ.



ပူၤလၢအိဉ်ဒီတၢ်လီၤဘၣ်ယိဉ်လၢအဆါတဖၣ်ကမၤန့ၢ်တၢ်ဆဲးကသံဉ်ဒီသဒေးလၢအဆိလီၤ.

ဖဲပမၤန့ၢ်အိဉ်ဒီကသံဉ်ဒီသဒေးအခါပူၤကဆဲးအိဉ်ဒီဘၣ်ကသံဉ်ဒီသဒေးကသုန့ၣ်လီၤ
တၢ်အိဉ်ဆၣ်အိဉ်ဆူဝဲက့ၢ်မၤတၢ်ယုထၢဘၣ်ယုဒီးမၤမ့တမၤကဆဲးဘၣ်ဆိကသံဉ်ဒီသ
ဒၢလဲၣ်ဒီးပညိဉ်ပူၤလၢအိဉ်ဒီတၢ်လီၤဘၣ်ယိဉ်အိဉ်န့ၣ်လီၤ
ပူၤကိးကဒီးကဆဲးဘၣ်ကသံဉ်ဒီသဒေးတဖၣ်အိဉ်ဒီအိဉ်ဒီကသံဉ်ဒီသဒေးလၢလီၢ်လီၢ်အခါန့ၣ်လီၤ
လဲၤက့ၢ်ဖိ [FindYourPhaseWA.org](https://www.findyourphases.org) မ့တမၤကိး 1-800-525-0127 ဝဲၤဒီးစံးလီၤ
လၢကယုထံၣ်န့ၣ်ဆဲးကသံဉ်ဒီသဒေးကသုအခါဖဲလဲၣ်န့ၣ်လီၤ (လၢတၢ်တၢ်ကျိးထံတၢ်မၤစၢတဖၣ်အဂီၢ်
ထဲလၢန့ၣ်လီၤလၢတၢ်ကစံးဆၢလီၤတဲစိအခါဖဲလဲၣ်န့ၣ်တက့ၢ်န့ၣ်).



နကတုၢ်ဘၣ်ကသံဉ်အတၢ်ဒီဘၣ်တဖၣ်န့ၣ်လီၤ.

ဒီကသံဉ်ဒီသဒေးညီၣ်န့ၣ်အကအသီ. နန့ၣ်ကညီၣ်ထီၣ်. တၢ်လီၤကီၢ်. ဝိဉ်ဆါ. မ့တမၤ တၢ်သ့ၣ်လီၤဘၣ်လီၤတီၤ
ဝဲတၢ်ဆဲးဘၣ်ကသံဉ်ဒီ
သဒေးဝဲၤအလီၢ်ခဲန့ၣ်လီၤ. တၢ်တဖၣ်ဆဲးမ့ၢ်တၢ်ပုၤနီၣ်တဖၣ်လၢကသံဉ်ဒီသဒေးတဖၣ်မၤတၢ်န့ၣ်လီၤ.



အိဉ်ဆိးပူၤပူၤဖျဲးဖျဲး

ဝဲန့ၣ်ဘၣ်ကသံဉ်ဒီသဒေးအလီၢ်ခဲ. ထီၣ်ယၢ်နီၣ်က့ၢ်ဘၢခဲ. အိဉ်ယၢ်ဒီးပူၤအကယုနီၣ်ယီၢ် (ခဲဆၢဉ်). ဒီးဟံၣ်ဖျိဉ်ထီၣ်သးစ့ၤလၢ

Implementation in the Refugee Community

- Availability
 - Being able to take time from work is a major constraint
 - Many vaccination sites have hours during times when people typically work
 - Identify accessible sites at accessible hours
 - Lobby for these sites if not available
 - Consider doctor's note for medical necessity
 - If can get doctor's note, consider requesting 2 days given vaccine effects on second day, although most patients are functional

Summary

- COVID-19 is an ongoing threat
- It is evolving new variants
- Testing is available but not perfect
- Treatments are available but not perfect
- Vaccination saves lives and the risks are low
- Refugee and immigrant populations have unique, heterogenous barriers to vaccination that require a proactive approach and good rapport

Questions/Discussion



Please complete the feedback survey that was chatted to you in the webinar or by using this link:

<https://tinyurl.com/2n3rjrad>

Thank you for attending this webinar by

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February 24, 2021

The National Capacity Building Project is a project of the Center for Victims of Torture

www.cvt.org

More resources are available at www.healtorture.org



National Capacity Building Project