COORDINATED BEHAVIORAL CARE

COVID-19 PANDEMIC UPDATE: VACCINES

Coordinated Behavioral Care

February 10, 2021

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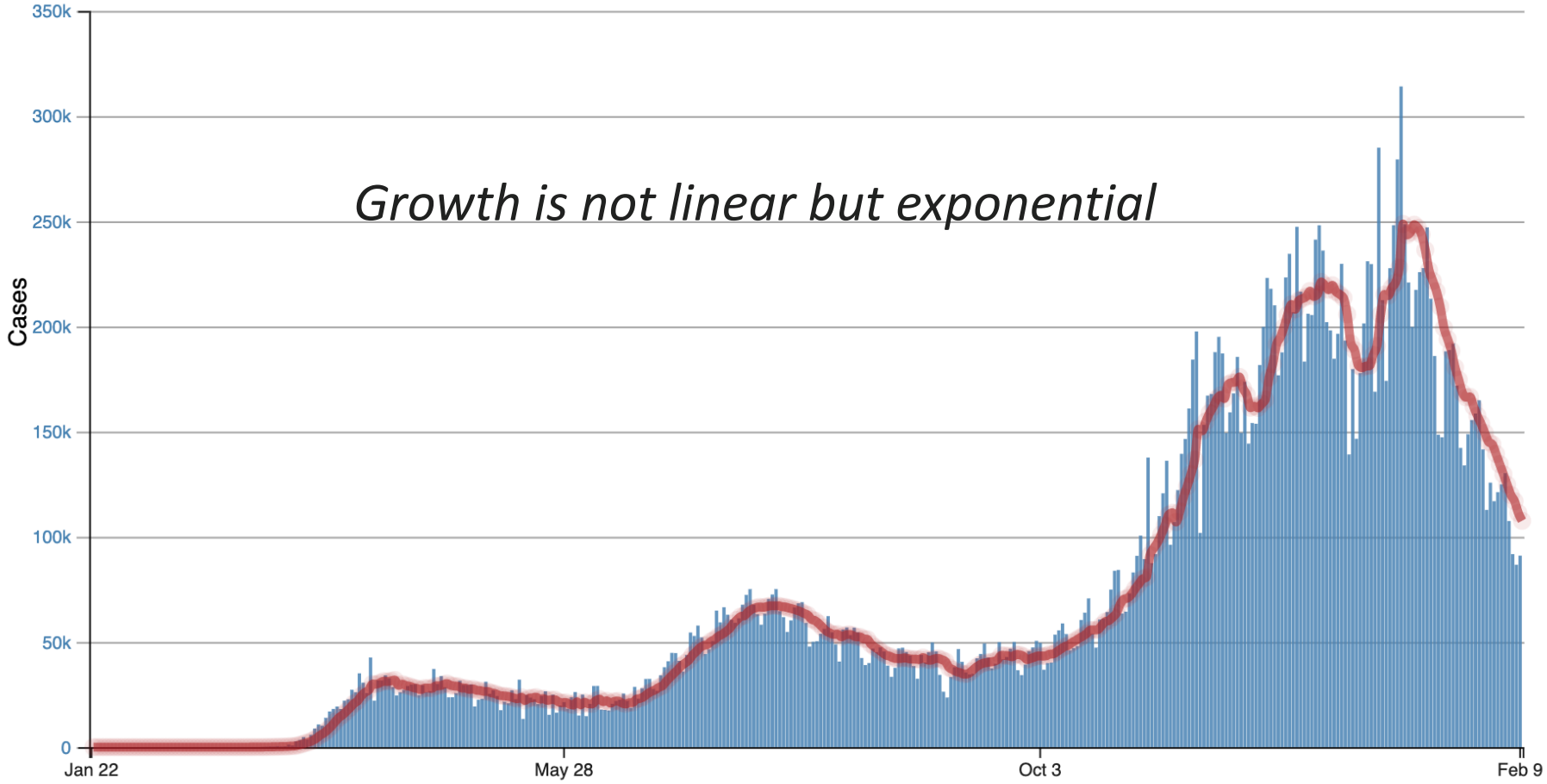
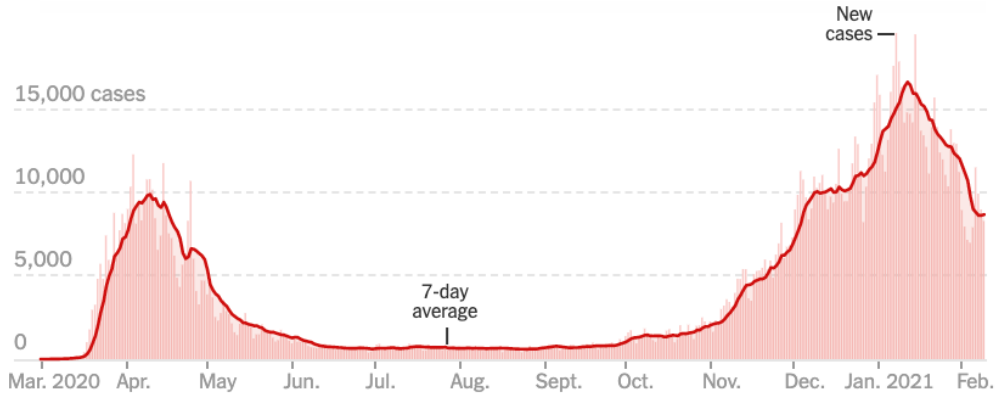
US COVID-19 EPIDEMIC CURVE AS OF FEBRUARY 9, 2021



https://covid.cdc.gov/covid-data-tracker/?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fcases-updates%2Fcases-in-us.html#trends_dailytrends

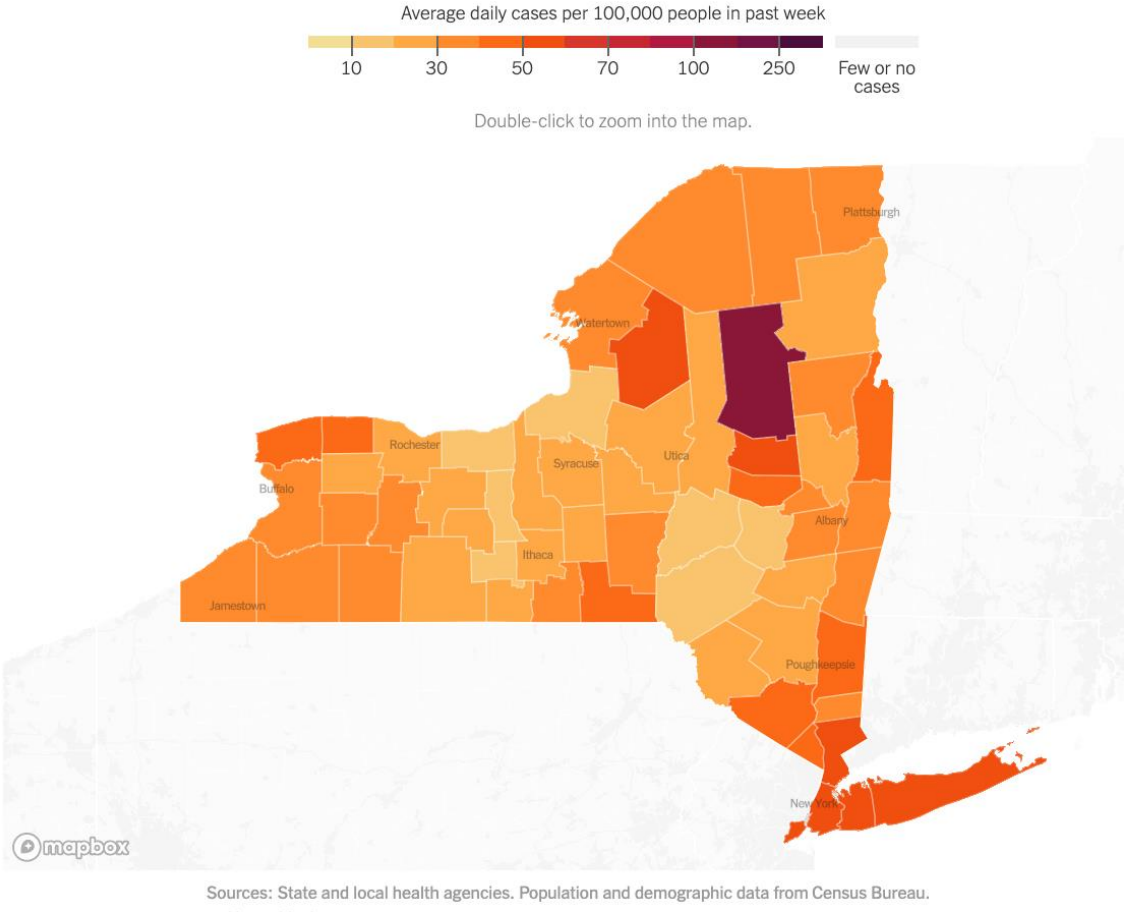
COVID-19 IN NEW YORK STATE AS OF FEBRUARY 10, 2021

Updated February 10, 2021, 7:37 A.M. E.T.



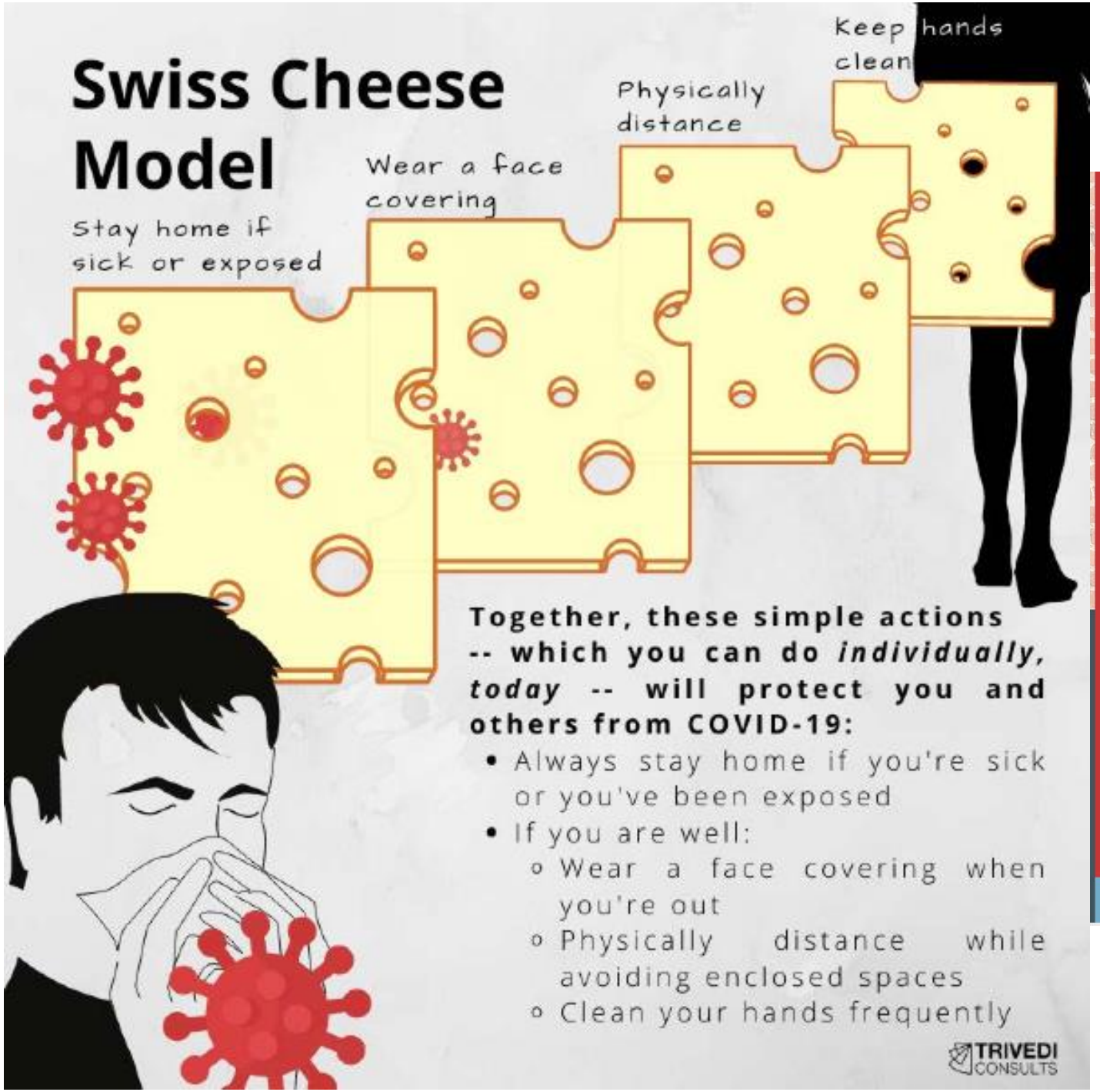
	TOTAL REPORTED	ON FEB. 9	14-DAY CHANGE
Cases	1.4 million+	8,279	–33% ↘
Deaths	44,683	171	–14% →
Hospitalized		7,875	–11% →

Hospitalization data from the Covid Tracking Project; 14-day change trends use 7-day averages.



Sources: State and local health agencies. Population and demographic data from Census Bureau.

https://www.nytimes.com/interactive/2020/us/coronavirus-us-cases.html

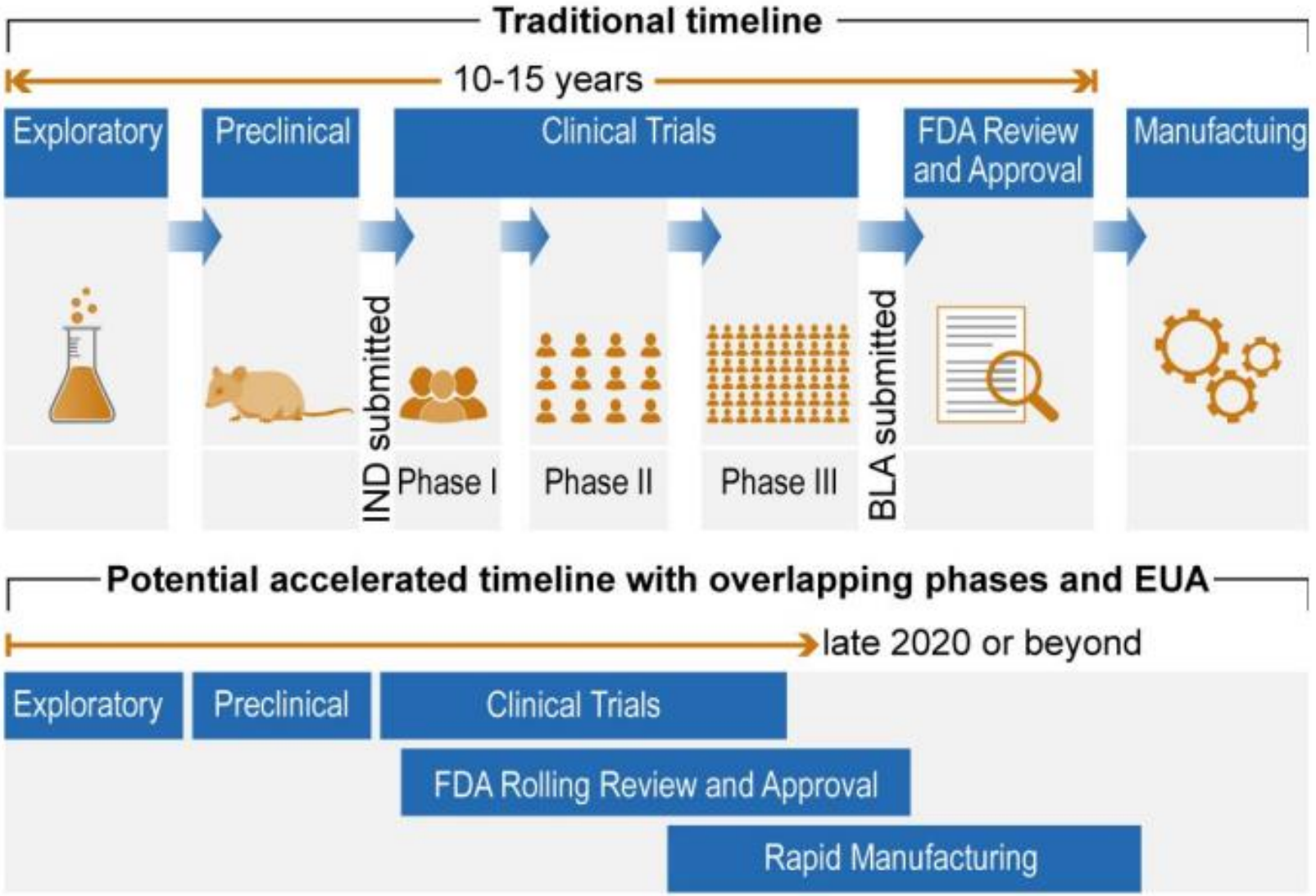


On their own, these four practices have holes, but like slices of Swiss cheese, when they're layered together they form a solid barrier against the spread of COVID-19.

FACE COVERINGS

- ***Filtration + fit***
- ***Best is face covering you do not touch with high filtration efficiency that fits your face***
  - Fit tested N95 or equivalent (KF94) > form-fitting surgical (surgical with cloth mask on top or brace) > loose-fitting surgical > 3-ply cloth > 2-ply cloth > neck gaiter >>> nothing
  - Indoor environment with many unmasked people, high filtration efficiency mask with face shield for barrier control

VACCINES


Traditional timeline
10-15 years
Exploratory
Preclinical
Clinical Trials
FDA Review and Approval
Manufactuing
IND submitted
Phase I
Phase II
Phase III
BLA submitted
Potential accelerated timeline with overlapping phases and EUA
late 2020 or beyond
Exploratory
Preclinical
Clinical Trials
FDA Rolling Review and Approval
Rapid Manufacturing

STATUS OF FIVE* LEADING COVID-19 VACCINES IN THE US

Manufacturer	Status
Pfizer/ BioNTech - mRNA	Approved on 12/11/2020 >16 y/o Doses being administered
Moderna - mRNA	Approved on 12/18/2020 >18 y/o Doses being administered
AstraZeneca/Oxford – ds DNA	11/23/2020 Reported 90% efficacy for Phase 3 trial. Approved in UK on 12/30/2020. Expected to seek EUA in February 2021
Johnson & Johnson – ds DNA	1/29/2021 reported 72% efficacy in US overall with one dose. Filed for EUA 2/4/21
Novavax – protein-based recombinant version of spike protein	1/28/2021 reported 89% efficacy in UK

Vaccine trial	Approximate # of people who received the vaccine	Of people vaccinated in the trial		
		# hospitalized for COVID	# who died from COVID	# who died from the vaccine
Moderna	15,000	0	0	0
Pfizer	18,600	0	0	0
Novavax*	13,000	0	0	0
Astra-Zeneca	5,800	0	0	0
J&J*	22,000	0	0	0

SAFETY PROFILE

Short-term mild-mod pain at injection site

- Immune system is producing antibodies

More common after 2nd dose and in younger recipients (16-55 y/o):

- 59% fatigue, 52% headache

SAFETY PROFILE

Serious adverse events

- Anaphylaxis (severe allergic reaction) in 5 per million doses (Pfizer)
- Anaphylaxis 2.8 per million doses (Moderna);
- Most previous history of allergy within 15 minutes

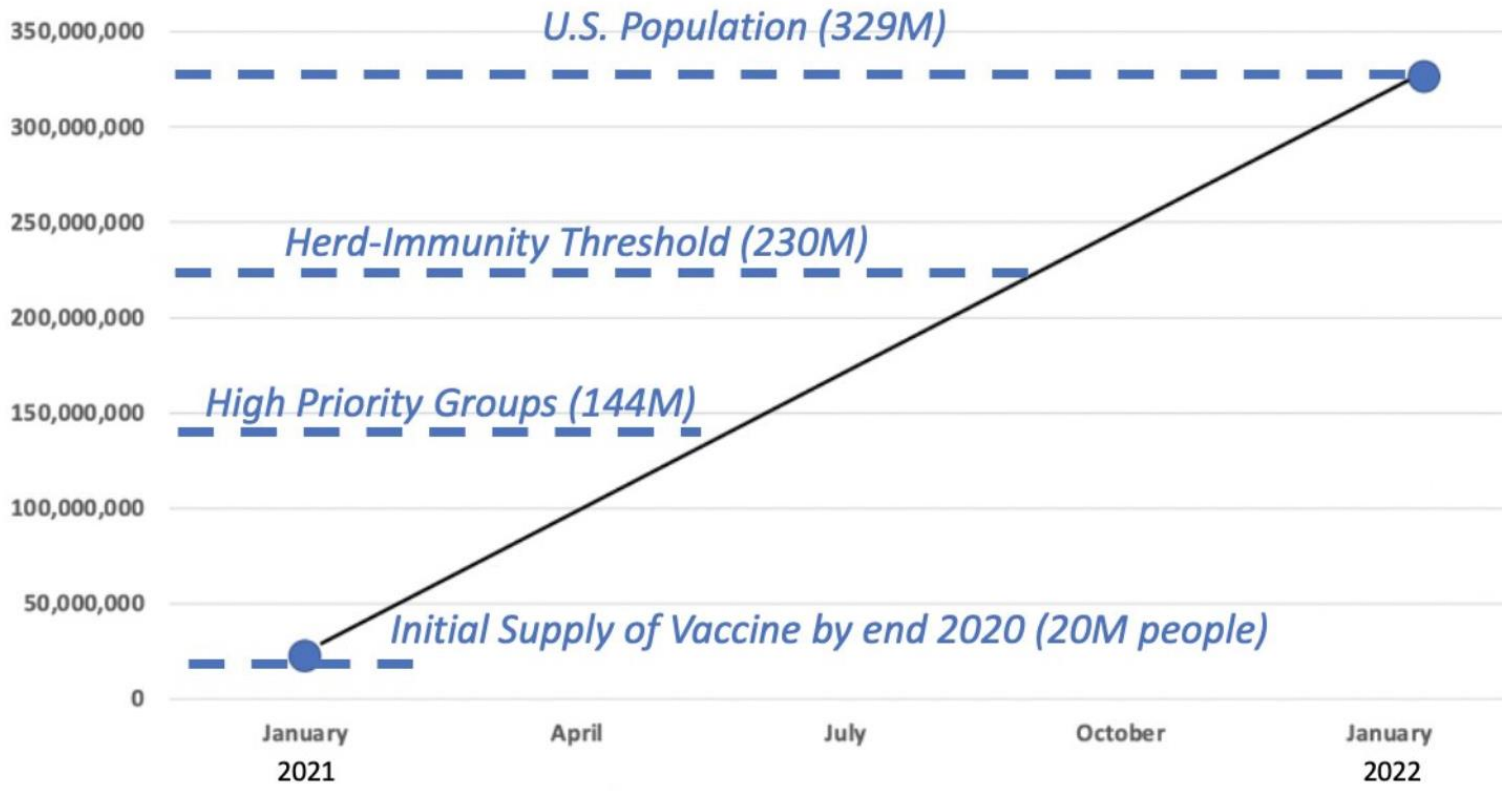
VACCINATION VS. VIRUS

Taking vaccine has some risks but risks are lower than if you contract the virus

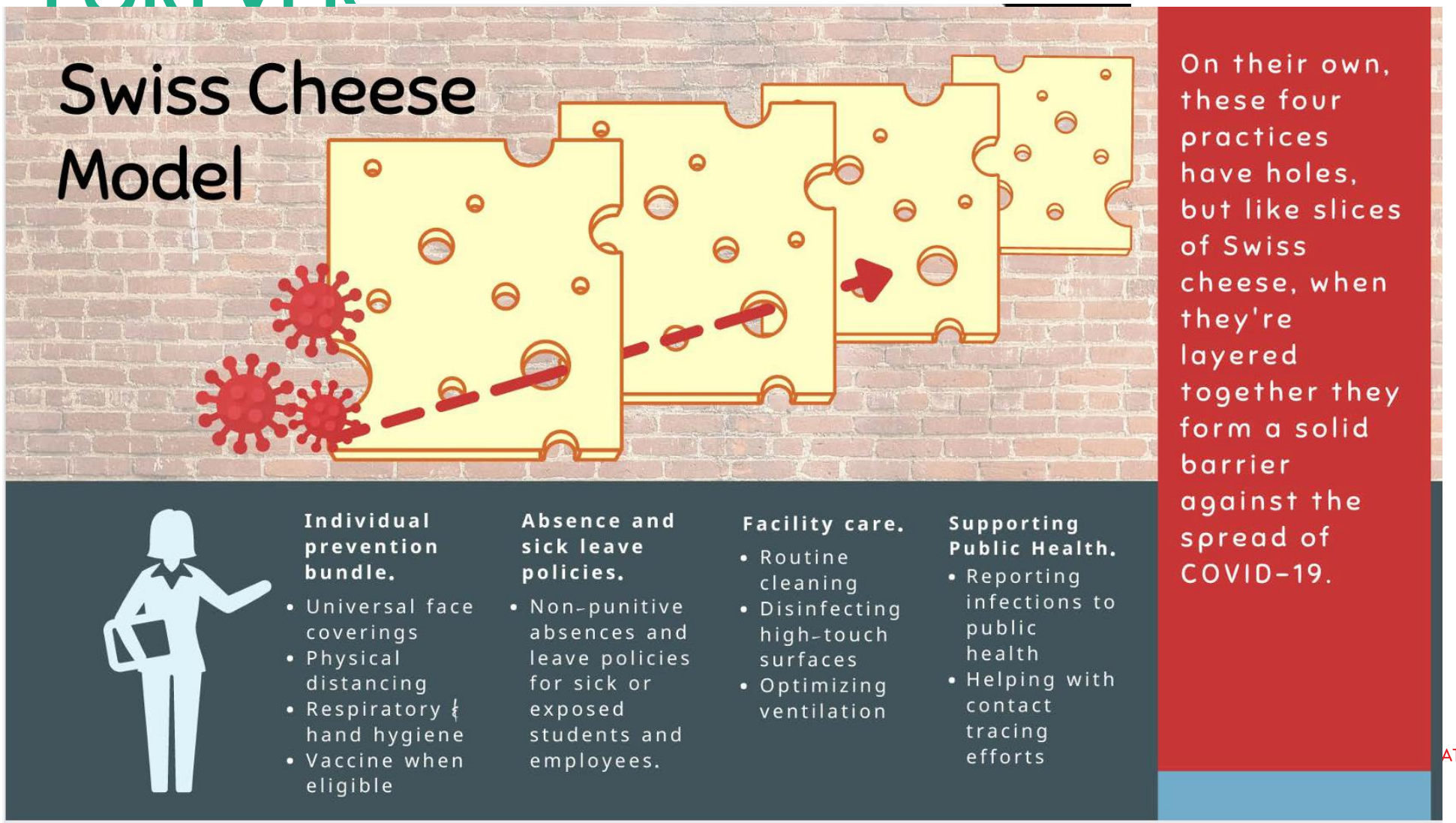
- In a study of 3222 18-34 y/o hospitalized for COVID-19 between 4-6/2020, 21% required ICU, 2.7% died

https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2770542

HERD IMMUNITY TIMELINE



CONTINUE BEHAVIORS THAT HAVE GOTTEN US THIS FAR…BUT NOT FOREVER



TWO VACCINES SIGNAL DECREASE IN TRANSMISSION IN VACCINATED PARTICIPANTS

COORDINATED BEHAVIORAL CARE

AstraZeneca/Oxford – swabbed

by

eived

o

placebo

4 Data to Support Efficacy Against Asymptomatic Infection

Monica Gandhi MD, MPH @MonicaGandhi9 · Jan 18

Please read from amazing @PaulSaxMD

nejm.org/covid-vaccine/...

"it would be highly unlikely in biological terms for vaccine to prevent disease and not also prevent infection. If there is an example ..of this selective effect.— I can't think of one!". Protect others until mass vax

	N=14,134		N=14,073	
RT-PCR NP Swab Results	n	%	N	%
No documented COVID-19 symptoms between 1st injection and 2nd injection	14	0.1%	38	0.3%

MRNA COVID-19 VACCINES

Two of the leading vaccine candidates (Pfizer/BioNTech and Moderna) use messe in from SARS

- Disc
- Do

This n vaccines can be ma higher temperatures, therefore, they must be kept extremely cold when shipped and stored

CLINICAL CONSIDERATIONS FOR USE OF APPROVED COVID-19 VACCINES

- *Administration of 2nd dose within 4-day grace period (e.g., day 17-21 or 24-28 days) considered valid*
- *No need to restart series if >3-4 weeks have elapsed before 2nd dose*
- *Both doses are necessary for protection; efficacy of a single dose has not been systematically evaluated*
- *COVID-19 vaccines not interchangeable*
- *Vaccine should be offered regardless of history of prior SARS-CoV-2 infection*
- *Vaccination should be deferred until recovery from acute illness (if person had symptoms) and criteria have been met to discontinue isolation*

https://www.cdc.gov/vaccines/covid-19/info-by-product/clinical-considerations.html

VACCINATION OF SPECIAL POPULATIONS

Vaccine may be administered to persons with underlying medical conditions with no contraindications

Persons with HIV infection, other immunocompromising conditions, or who take immunosuppressive medications might be at increased risk for severe COVID-19

- No data to establish safety and efficacy of vaccine in these groups
- These individuals may still receive vaccine unless otherwise contraindicated

No data on the safety of COVID-19 vaccines in pregnant women

- If a woman is part of a group (e.g., healthcare personnel) who is recommended to receive a COVID-19 vaccine and is pregnant, she may choose to be vaccinated

mRNA vaccines are not live virus vaccines and are not thought to be a risk to pregnant women or breastfeeding infants

VARIANTS OF CONCERN

Mutations in spike protein

More transmissible (e.g. B.1.1.7/501Y.V2 has 24 mutations predominant strain in UK 50% more transmissible than wild-type)

- Concern will become predominant in US

Some may increase disease severity (e.g. B.1.351/501Y.V2 and B.1.1.7/501Y.V1)

Prior infection may offer less protection (e.g., B.1.351/501Y.V2 and P.1)

Apoorva Mandavilli ✓
@apoorva_nyc

BREAKING: Moderna says vaccine will still protect against the coronavirus variants, altho neutralizing antibodies are sixfold less effective against the one in South Africa (but levels produced are so high, sixfold is not bad at all)
by @nytDeniseGrady

As Virus Grows Stealthier, Vaccine Makers Reconsider Battle Plans
Vaccines by Moderna and Pfizer-BioNTech effectively protect recipients. But in a worrying sign, they are slightly less effective against a variant found in ...
nytimes.com

5:42 AM · Jan 25, 2021 · TweetDeck

QUESTIONS/COMMENTS

"When the facts change, I change my mind – what do you do, sir?"

- John Maynard Keynes

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Presentation subject: CBC is a results-driven healthcare organization dedicated to improving the quality of care for Medicaid beneficiaries with serious mental illness, chronic health conditions and/or substance use disorders.