# NASTARS None Are Safe 'Til All Are Safe



Team 3958



# COVID-19 is a Major Problem

- We selected this problem because COVID is one of the biggest problems facing our world right now, according the white house
- https://www.whitehouse.gov/priorities/

#### COVID-19

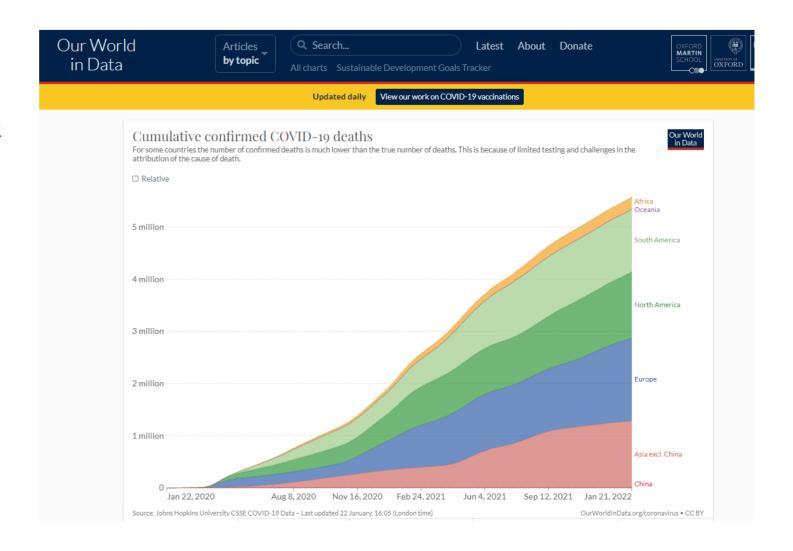
President Biden will move quickly to contain the COVID-19 crisis by expanding testing, safely reopening schools and businesses, and taking science-driven steps to address the communities — especially communities of color — who have been hardest hit by this virus. And, President Biden will launch a national vaccination program to inoculate the U.S. population efficiently and equitably.

Read more about the Biden-Harris plan to beat COVID-19

~

## COVID has killed 5.5 million

 COVID has killed 5.5 million people across the globe, according to our world in data. <a href="https://ourworldindata.org/grap-her/cumulative-covid-deaths-region">https://ourworldindata.org/grap-her/cumulative-covid-deaths-region</a>



## COVID has cost the world 24 trillion dollars

- COVID has cost the world
   24 trillion dollars, According
   to Forbes.
- https://www.forbes.com/si tes/williampesek/2021/02/2
   6/covid-19s-24-trillion-costso-far-means-economics-willnever-be-thesame/?sh=4163603d4844



# COVID easily spreads

• COVID is a virus that spreads from person to person. The current pandemic started in the fall of 2019 and is still underway.

## COVID can be slowed...

 The world used travel restrictions, quarantine, masking, and social distancing to reduce the spread of COVID until there was a vaccine to provide protection to people. According to the BBC, New Zealand was a role model for these interventions.

https://www.bbc.com/n ews/world-asia-53274085

# How did New Zealand become Covid-19 free?

By Anna Jones

( 10 July 2020



Coronavirus pandemic



In late June, two cases of coronavirus were confirmed in New Zealand.

# COVID causes hospital shortages

 Despite these efforts, many hospitals did not have enough resources such as ICU beds, ventilators, and medicines. Many people died because of shortages of medical supplies.

https://www.euronews.co m/2020/03/19/bergamohospitals-full-as-italy-scoronavirus-nightmareworsens

#### Bergamo hospitals full as Italy's coronavirus nightmare worsens Ocomments

By Giorgia Orlandi • Updated: 19/03/2020



A view of Bergamo, Italy, Tuesday, March 17, 2020. - Copyright Luca Bruno/Copyright 2020 The Associated Press. All rights reserved

## Vaccines Work!

 According to the CDC, we have successfully fought past 14 pandemics with vaccines, such as polio and smallpox. Vaccines work by reduce the spread of the disease by building immunity among people so those people can't spread the disease.

https://www.cdc.gov/vacc ines/parents/diseases/for got-14-diseases.html Diseases You Almost Forgot About (Thanks to Vaccines)





#### #1. Polio

Polio is a crippling and potentially deadly infectious disease that is capoliovirus. The virus spreads from person to person and can invade a person's brain and spinal cord, causing paralysis. Polio was eliminate. United States with vaccination, and continued use of polio vaccine ha country polio-free. But, polio is still a threat in some other countries. that infants and children are vaccinated is the best way to prevent poreturning. Make sure your baby is protected with the polio vaccine.

# The path to the vaccine-Government Money

Many countries, like the US, paid the research costs to companies for trying to make a vaccine. The US paid more than 9 billion in research monies to 7 companies like Pfizer, Moderna and Johnson and Johnson. This money made it safe for companies to take a risk of developing a new vaccine, which normally takes billions of dollars.

https://www.usatoday.com/story/news/health/2020/08/08/feds-spending-more-than-9-billion-covid-19-vaccine-candidates/5575206002/



## Path to the Vaccine-Reduce Trial Times

 Many countries lifted the normal testing plans for the candidate vaccines. because the world needed a vaccine immediately. Vaccines normally take 2-10 years of extensive testing before being used. https://www.fda.gov/vacci nes-bloodbiologics/vaccines/emerge ncy-use-authorizationvaccines-explained

# Emergency Use Authorization for Vaccines Explained



#### Español

FDA is globally respected for its scientific standards of vaccine safety, effectiveness and quality. The agency provides scientific and regulatory advice to vaccine developers and undertakes a rigorous evaluation of the scientific information through all phases of clinical trials, which continues after a vaccine has been approved by FDA or authorized for emergency use.

FDA recognizes the gravity of the current public health emergency and the importance of facilitating availability, as soon as possible, of vaccines to prevent COVID-19 - vaccines that the public will trust and have confidence in receiving.

#### What is an Emergency Use Authorization (EUA)?

An Emergency Use Authorization (EUA) is a mechanism to facilitate the availability and use of medical countermeasures, including vaccines, during public health emergencies, such as the current COVID-19 pandemic. Under an EUA, FDA may allow the use of unapproved medical products, or unapproved uses of approved medical products in an emergency to diagnose, treat, or prevent serious or life-threatening diseases or conditions when certain statutory criteria have been met, including that there are no adocusts.

#### Content current as of:

11/20/2020

#### Regulated Product(s) Biologics

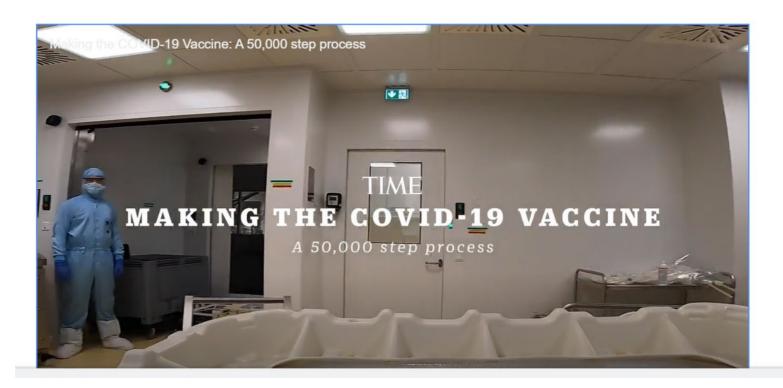
Biologics Vaccines

# Pfizer makes 1 B dosses per year in Marburg Alone

 Companies like Pfizer developed a good vaccine and built extra capacity to make the vaccine. For example, according to Time Magazine, the Pfizer facility in Marburg runs 24 hours a day, 7 days a week. It was built for around \$600 million dollars in a month. It makes 1 billion doses of COVID vaccine per year. https://time.com/59552 47/inside-biontechvaccine-facility/

HEALTH . COVID-19

Exclusive: Inside the Facilities Making the World's Most Prevalent COVID-19 Vaccine



## The World made 10 Billion Vaccine Doses

 According to Bloomberg, almost 10 billion doses of vaccine were administered last vear.

https://www.bloomberg.com/g raphics/covid-vaccine-trackerglobal-distribution/

#### More Than 9.89 Billion Shots **Given: Covid-19 Tracker**

In the U.S., 533 million doses have been administered

Updated: January 22, 2022, 9:30 AM EST

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accine Tracker

Global 7 U.S. 7 U.S. Vaccine Demographics 7 FAQ 7 Covid-19 Tracker 7

The biggest vaccination campaign in history is underway. More than **9.89 billion doses** have been administered across 184 countries, according to data collected by Bloomberg. The latest rate was roughly **36.5 million** doses a day.

In the U.S., 533 million doses have been given so far. An average 271,981 **doses per day** were administered over the last week.

#### **World Map of Vaccinations**

More than 9.89 billion doses have been administered—126 shots for every 100 people worldwide

# Vaccinate Rates Vary Widely

 According to Our World in Data, vaccination rates around the world vary from nearly 99% in United Arab Emirates to 74% in the US to 6% in Nigeria.

https://ourworldindata.org/covid-vaccinations



## African Countries have low vaccination rate

 The vaccination rate in Nigeria is so low because they do not have access to the vaccine. They were supposed to have access to the vaccine through COVAX.

## **COVAX**

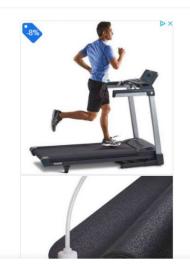
• COVAX is an international insurance policy where wealthy nations donate vaccines to poorer nations. This is important because "none of us are safe until we are all safe"

# COVAX failed to deliver on promise

 According to Washington Post, COVAX has delivered only 20% of the promised vaccines to African nations. There are many reasons for the low supply to Africa. <a href="https://www.washington.ost.com/world/2021/12/10/covax-doses-delivered/">https://www.washington.ost.com/world/2021/12/10/covax-doses-delivered/</a>

Covax promised 2 billion vaccine doses to help the world's neediest in 2021. It won't deliver even half that.





# India keeps Africa's Vaccines

 According to Reuters, Serum Institute, the largest vaccine manufacturer in the world, refused to export vaccine to Africa because India needed it to fight a surge in India. https://www.reuters.co m/business/healthcarepharmaceuticals/indiasserum-institute-letafrica-down-vaccinessays-africa-cdc-2021-12-09/



# Vaccines are perishible

-According to the Economist,
 African nations had to destroy
 more than 59 thousand vaccine
 doses because they were
 delivered too close to
 expiration to be safely used.
 <a href="https://www.economist.com/t">https://www.economist.com/t</a>
 he-economist explains/2021/08/12/why-are african-countries-destroying covid-19-vaccines

Explaining the world, daily
The Economist
explains



The Economist explains

Why are African countries destroying covid-19 vaccines?

Bad donations and flawed supply chains are to blame



## The Problem

• It seems that the world keeps its doses until it no longer needs them, and then sends them to poorer countries. This has delayed to vaccination of African nations, who are mostly poor.

## Deaths and Disease

• This is wrong for several reasons. First, people will die while waiting for vaccines. In Vermont, roughly 1 in 500 people who get COVID will die.

# **Economic Impacts**

• Second, if the vaccine continues to spread, the world continues to need travel bans, masks and so on. This hurts the economy, which hurts everyone

## Variants

• Third, if the vaccine continues to spread, new variants can arise like Delta, Omicron and Delta Cron.

# Fix Supply Chain by Moving Manufacturing

• Our solution is to increase the supply of vaccine by moving manufacturing to African Nations.

# COVAX has money

 According to Statista, the world has donated about 5.5 billion to COVAX. <a href="https://www.statista.com/c">https://www.statista.com/c</a> <a href="https://www.statista.com/c">hart/24244/donations-to-covax-by-country/</a> COVAX

#### The Governments Donating The Most Money To COVAX

by May 5, 2021

In a major reversal of his predecessor's isolationist America First policy, President Biden has pledged \$4 billion to the COVAX initiative. Led by the Global Alliance for Vaccines and the World Health Organization, COVAX aims to provide equitable Covid-19 vaccine access for 92 low/middle income governments through donations. Biden announced the contribution during a virtual summit with G7 leaders in February and the move is reportedly also aimed at mobilizing U.S. partners to increase their involvement in the initiative. The U.S. is initially paying \$2.5 billion towards COVAX, with the rest of the pledge to follow later.

While U.S. investment in COVAX will go some way towards <a href="helping\_poorer countries">helping\_poorer countries</a>, administration officials said the move will benefit Americans as it will reduce the risk of dangerous Covid-19 mutations developing that could prolong the pandemic. Before U.S. involvement, the UK was the biggest COVAX donor with more than \$730 million pledged as of December 2020, according to Gavi, the Vaccine Alliance. It has now slipped down to third position with Germany moving into second with around \$1 billion of funding pledged.

Governments are not the only COVAX donors and the intiative has received funding from an array of foundations, corporations and organizations. The Bill and Melinda Gates Foundation is among the largest donors, pledging more than \$150 million. COVAX is aiming to fairly distribute more than two billion doses to the governments that need them most by the end of the year.

frica has a population of 1.2 billion. A single facility can provide 1 billion does a year, which is enough to accinate 330 million with two doses and a booster. This would dramatically reduce the spread of COVID in frica.	

• A single facility would cost \$600 million to construct, which well within the 5 billion of monies for COVAX.

<ul> <li>Moving the facility to an African country means that the vaccines will be used in Africa.</li> </ul>	

•	It also means there will be more time to administer the vaccines because they are fresher and because they don't have to travel as far to get to patients. This means there is less chance that the doses will have to be destroyed.

 This is the right thing for Pfizer to do. According to CNN, Pfizer's profits doubled during the pandemic. They made more tan 24.1 billion in profits. They can afford to expand manufacturing facilities into Africa, especially if COVAX pays for it.

https://www.cnn.com/2 021/11/02/business/pfiz er-earnings/index.html

#### Pfizer revenue and profits soar on its Covid vaccine business



By <u>Chris Isidore</u>, CNN Business Updated 12:31 PM ET, Tue November 2, 2021



#### MORE FROM CNN BUSINES





The pitchforks are

Recommend



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• This is the right thing to do for the Global Economy, which is losing trillions due to COVID.

<ul> <li>This is the right thing to do because none of us are safe until we are all safe!</li> </ul>	