PARTNERS IN HEALTH COVID-19 WEBINAR SERIES

Cholera to COVID: Delivering Vaccines During Global Crises

Hear how PIH is using lessons from lifesaving vaccine campaigns in Haiti and Sierra Leone to strengthen our COVID-19 vaccine strategy.



A Brief Exploration of Vaccine Hesitancy



March 24, 2021

Dr. Bailor Barrie and Jon Lascher

Mistrust of a Coronavirus Vaccine Could Imperil Widespread Immunity

Billions are being poured into developing a shot, but the rapid timetable and President Trump's cheerleading are creating a whole new group of vaccine-hesitant patients.





THE CORONAVIRUS CRISIS

New York Scrambles To Improve Vaccination Acceptance In Black And Latino Communities

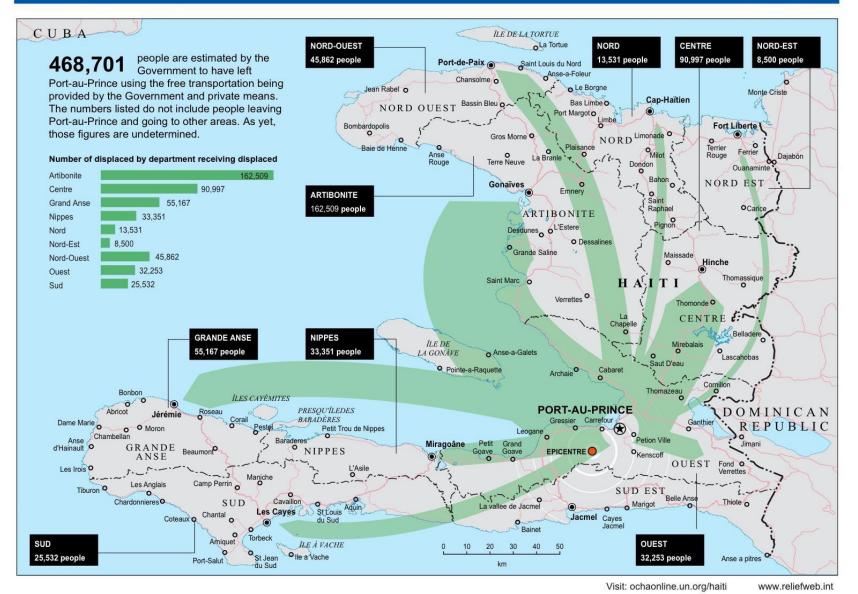
February 5, 2021 · 3:02 PM ET

BRIAN MANN

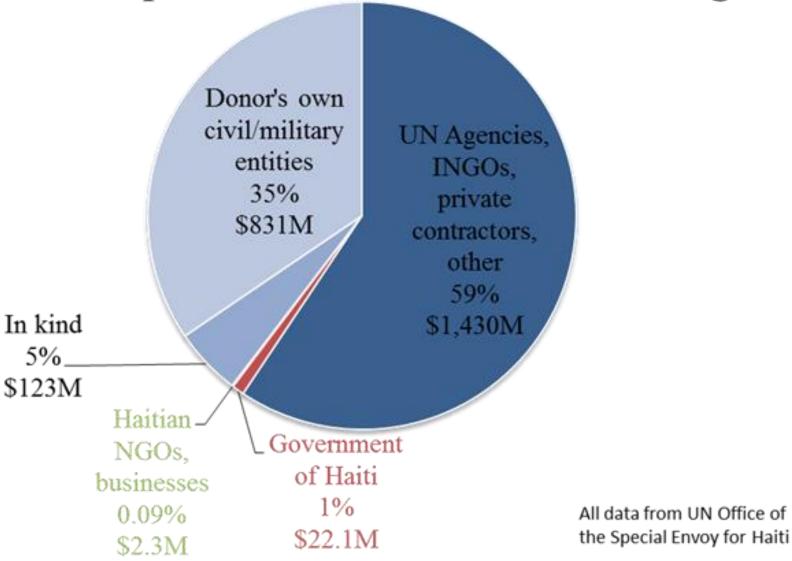


Haiti Earthquake - Population Movements out of Port-au-Prince - 8 February 2010





Recipients of Humanitarian Funding



not seem to add up to comprehensive change.

Opinion | OP-ED COLUMNIST

The Underlying Tragedy



David Brooks JAN. 14, 2010

On Oct. 17, 1989, a major earthquake with a magnitude of 7.0 struck the Bay Area in Northern California. Sixty-three people were killed. This week, a major earthquake, also measuring a magnitude of 7.0, struck near Port-au-Prince, Haiti. The Red Cross estimates that between 45,000 and 50,000 people have died.

This is not a natural disaster story. This is a poverty story. It's a story about poorly constructed buildings, bad infrastructure and terrible public services. On Thursday, President Obama told the people of Haiti: "You will not be forsaken; you will not be forgotten." If he is going to remain faithful to that vow then he is going to have to use this tragedy



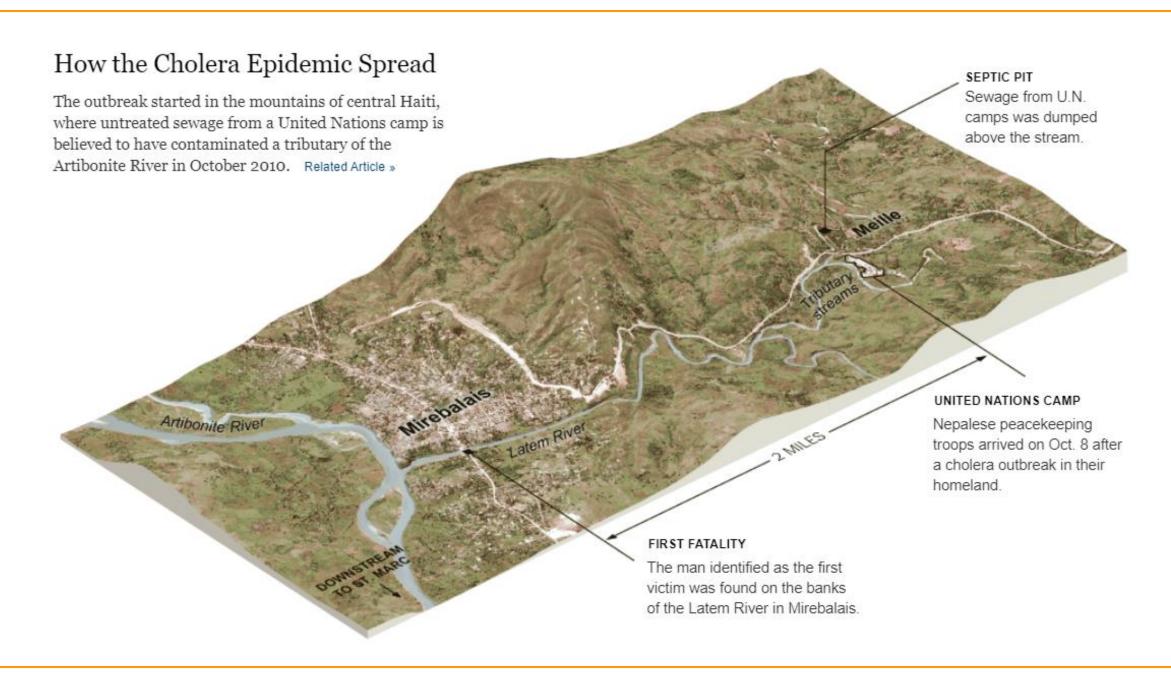
David Brooks

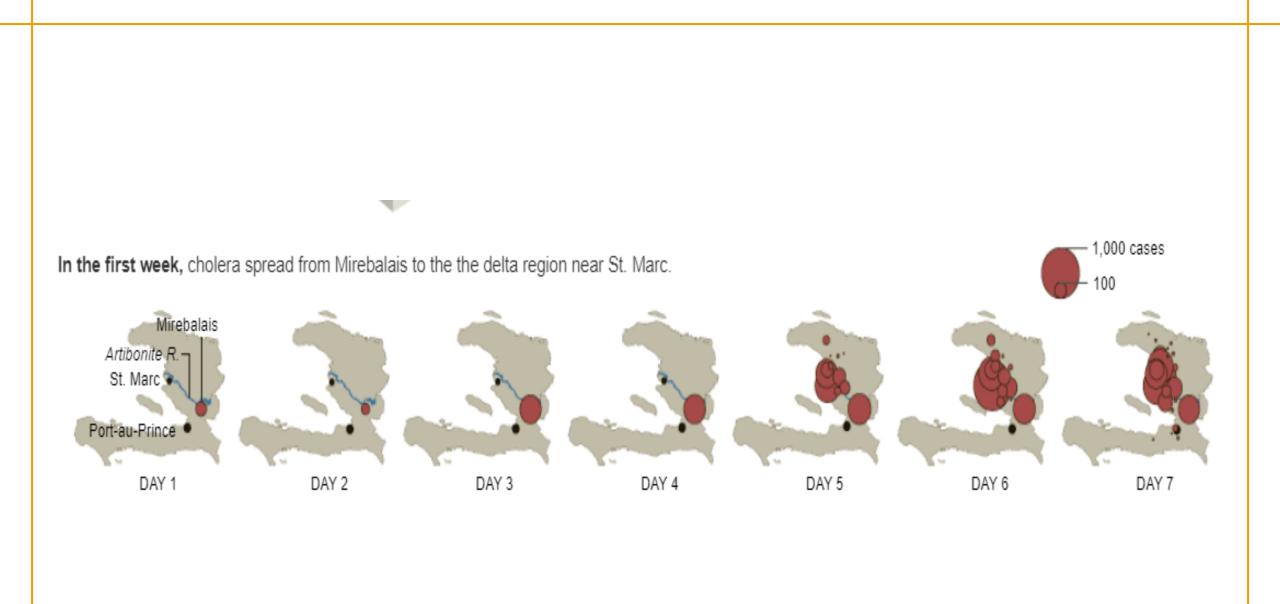
Third, it is time to put the thorny issue of culture at the center of efforts to tackle global poverty. Why is Haiti so poor?
Well, it has a history of oppression, slavery and colonialism. But so does Barbados, and Barbados is doing pretty well. Haiti has endured ruthless dictators, corruption and foreign invasions. But so has the Dominican Republic, and the D.R. is in much better shape. Haiti and the Dominican Republic share the same island and the same basic environment, yet the border between the two societies

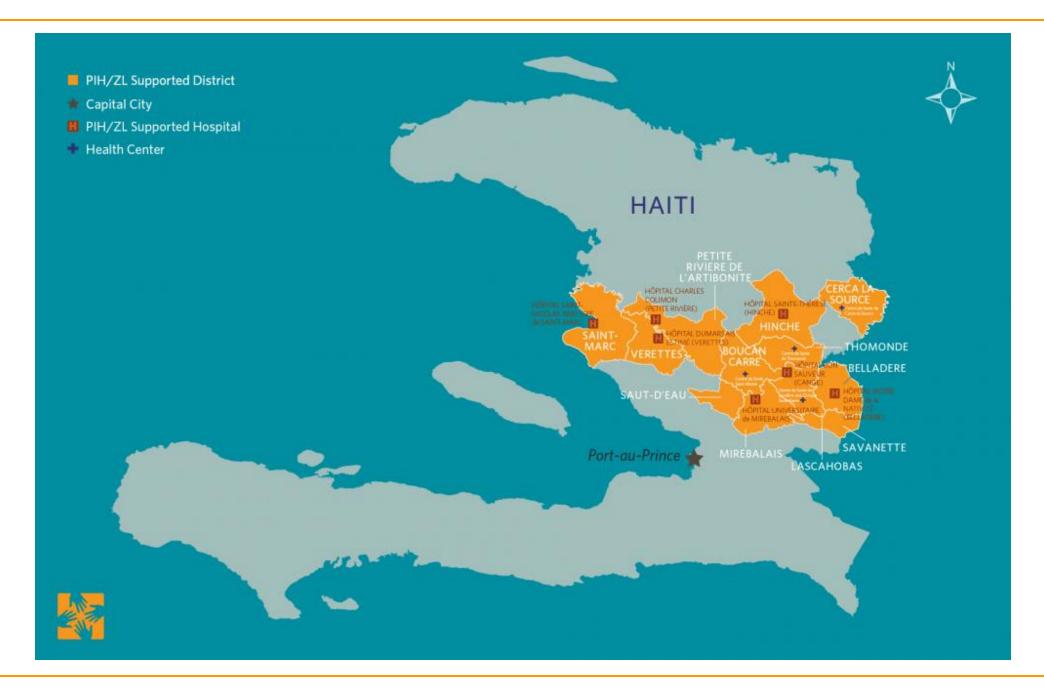
offers one of the starkest contrasts on earth — with trees and progress on one side, and deforestation and poverty and early death on the other.

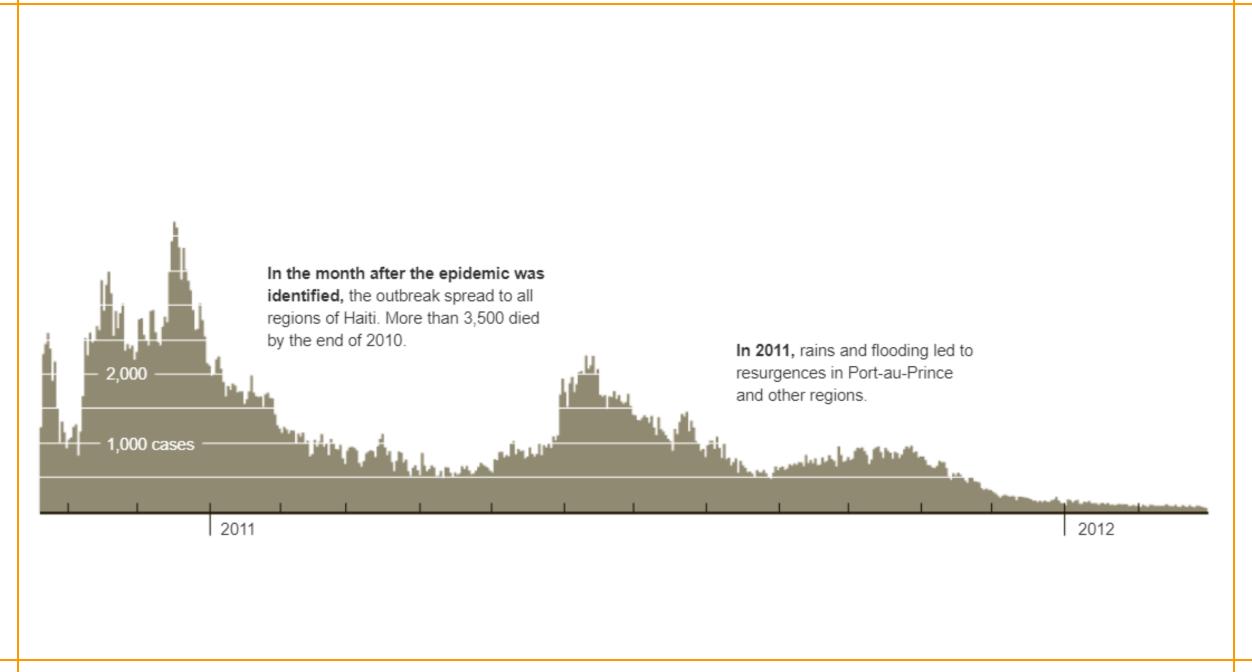
As Lawrence E. Harrison explained in his book "The Central Liberal Truth," Haiti, like most of the world's poorest nations, suffers from a complex web of progress-resistant cultural influences. There is the influence of the voodoo religion, which spreads the message that life is capricious and planning futile. There are high levels of social mistrust. Responsibility is often not internalized. Child-rearing practices often involve neglect in the early years and harsh retribution when kids hit 9 or 10.

"Haiti, like most of the world's poorest nations, suffers from a complex web of progress-resistant cultural influences"

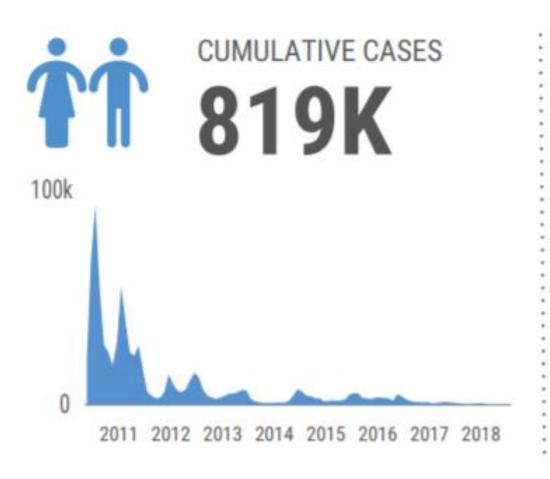


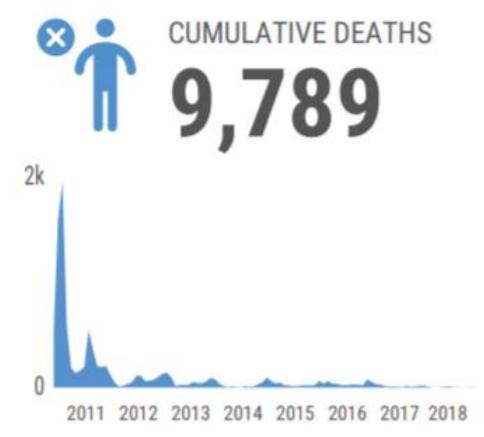






OCTOBER 2010 - DECEMBER 2018





"We need to raise our expectations of what's possible to do in Haiti and other countries in terms of these diseases that we've completely eliminated from our own societies." -Dr. Louise Ivers

"It's been a long and twisted path toward what vaccination proponents consider an obvious response to one of the biggest cholera epidemics on record."

-Richard Knox NPR

Vaccine Hesitancy Institutional Style



Pan American Health Organization

Regional Office of the World Health Organization

http://www.paho.org

Challenges of use of cholera vaccines in Haiti and the Americas

Dr. Cuauhtémoc Ruiz Matus

Comprehensive Family Immunization Program

Main Challenges

- 1. Apparent decrease in strength of vaccination recommendation from endemic to epidemic scenarios; unclear steps for decision-making
- 2. Available vaccine only sufficient for <120.000 people, thus possible cause for inequities
- 3. Perception that greater priorities exist, whether for routine vaccination or in new vaccine introduction





Conclusions

- Weak recommendation for pre-emptive and even more so for reactive vaccination possibly reflecting greater doubts in feasibility
- Very limited vaccine available on short term
 - From offset, limited impact even in presence of "herd protection"
 - Yet, call for vaccine stockpile ought to consider stockpile required size and related cost- opportunity implications
- In lesser developed countries, other new vaccines may offer greater cost-effectiveness
 - Need to contextualize and set long-term priorities





Vaccine	Deaths averted	per averted death (US\$)
(DPT-Hib-HepB)	3,271	2,106
PCV13	7,338	2,661
Rotavirus vaccine	2,397	2,388
Oral cholera vaccine	769	11,677

Trivac model; preliminary results for OCV on Dukoral (85% vaccine effectiveness, 3 doses, 10% wastage, US\$ 2.7 per dose)



CHOLERA IN HAITI

H

Cholera Vaccine Isn't The Answer For Haiti

G

October 28, 2010 · 11:35 AM ET

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RICHARD KNOX



There are other reasons why cholera vaccination isn't recommended during an outbreak. It requires two doses in most people, and three in young children. Keeping track of who's been vaccinated and getting them back for a second and third dose presents enormous logistical problems and a lot of personnel. And even with all that effort, it still takes three weeks at the least for immunity to build in the body, Andrus says.

The effort to mount a crash vaccination campaign would also surely detract from other public health measures known to be effective, like educating people about handwashing and handing out safe water, soap and oral rehydration. Such measures prevent infections and reduce fatality rates to around 1 percent.

"Measures to prevent and treat this disease are so effective...that we don't vaccinate our own staff on the ground or staff we're sending there," Andrus says.

Why Global Health Institutions Didn't Want Us To Vaccinate

- Distract from global focus on clean water and sanitation investments
- Concerns that once people took a vaccine they would be less likely to take seriously health behaviors to prevent cholera
- Some partners did not think PIH/Haitian Ministry of Health could successfully deliver a two dose vaccine, requiring community members to come back a week after receiving their first dose
- Not enough available vaccine to vaccinate everyone (i.e. how do you choose who gets a limited good?) Only 200,000 doses existed in the world at the time.
- A high level American heath official told us we could expect to fail using tablet technology because of glare caused by the sun

"Oral cholera vaccines have been used in mass vaccination campaigns in response to humanitarian emergencies since 1997. But because the disease disproportionately affects poor communities who are often unaware that the vaccines exist, there has historically been little demand for the products."

Supply and Demand Who Decides?

Global OCV Availability

During the initial weeks of the outbreak, an estimated 100,000–300,000 doses of Dukoral and 150,000 doses of Shanchol were available for immediate shipment, and an estimated 1,000,000 additional doses could have been made available over a 1-year period (International Vaccine Institute, Crucell, PAHO, pers. comm.). In December 2010 and January 2011, both manufacturers indicated that a larger supply (up to 5 million combined doses for both vaccines) (25) could be made available gradually over 1–3 years, but firm orders and financial commitments were needed before production capacity could increase.

Area Targeted for Pilot Program: 5th Section, St. Marc



Why this area?

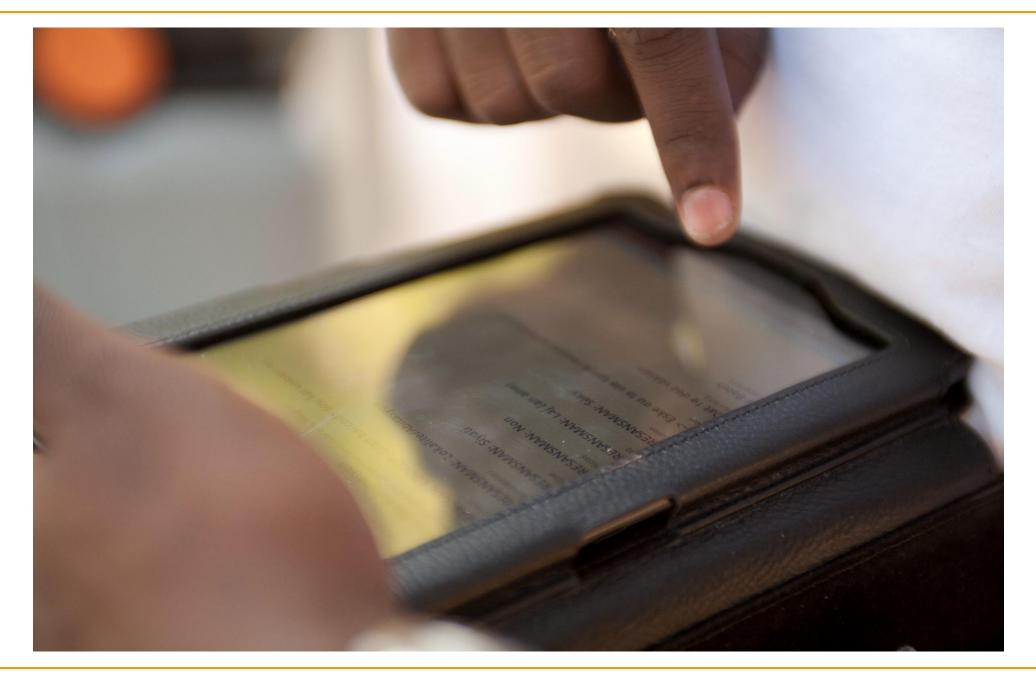
- Rural, isolated
- Close interaction with Artibonite river
- Low lying prone to flooding
- Some water pumps salty
- No public water system infrastructure plans in next 2-3 years
- Proximity to other ZL projects
- Later also included Grand Saline

Pilot Program for Oral Cholera Vaccine Phase 1 - Community engagement



Pilot Program for Oral Cholera Vaccine Phase 2 – Census







Pilot Program for Oral Cholera Vaccine Phase 3 – Vaccination

PHASE 3 - VACCINATION

40 TEAMS COMPRISED OF 4 PEOPLE EACH:

- Crier
- Registrar
- 2 Vaccinators
- +20 Supervisors

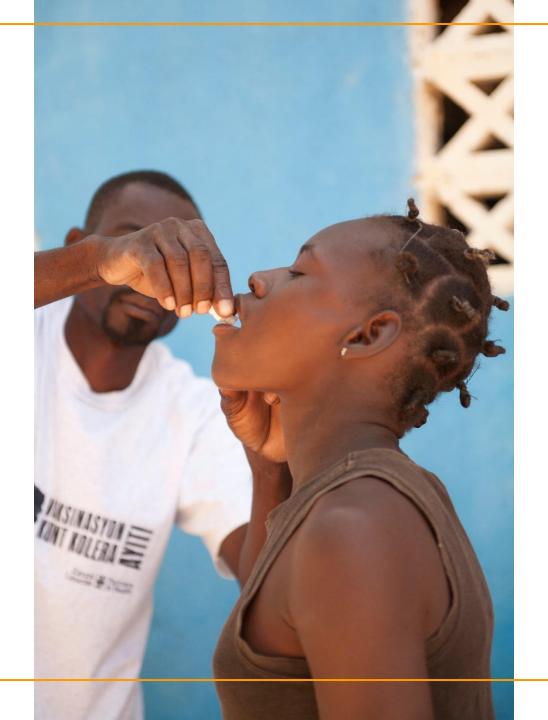
3-PRONGED APPROACH:

- Fixed posts
- Mobile posts
- Door to door

The approach was based on the data from the previous day









Pilot Program for Oral Cholera Vaccine Phase 4 – Evaluation

VACCINATION RESULTS

TOTAL NUMBER OF PEOPLE TO RECEIVE 2 DOSES: 41,193

PROPORTION OF THOSE VACCINATED THAT RECEIVED SECOND DOSE: 90.8% TOTAL

PROPORTION OF THOSE VACCINATED THAT RECEIVED SECOND DOSE BY GROUP:

Female: 91.7%

Male: 89.9%

1-4 years old: 93.7%

5-9 years old: 94.4%

10-17 years old: 90.7%

18+ years old: 89.5%

Bocozel: 90.7%

Grande Saline: 91.1%

VACCINATION IMPACT

"We're not trying to win an argument ... we're trying to get this epidemic slowed," said Farmer, who is also chair of the Department of Global Health and Social Medicine at Harvard Medical School.



"As researchers and policy-makers in Rwanda's health sector, we congratulate Guinea and Haiti on integrating oral cholera vaccination into their regular control efforts during epidemics. Rwanda has also learned valuable lessons about the costs of inaction from the world's delayed response to cholera outbreaks in post-earthquake Haiti...

We support the call for a global stockpile of cholera vaccine and argue for rapid integration of prevention and care at the first signs of a cholera outbreak."

Agnes Binagwaho *Ministry of Health, Kigali, Rwanda*

NOT TRYING TO WIN AN ARGUMENT

"In 2013 the WHO created the world's first OCV stockpile, undertaking to buy and use 2 million doses a year in order to stabilize and create demand for the vaccines.

Vaccination requires 2 doses per person, meaning the stockpile is sufficient to cover 1 million people."

http://www.who.int/cholera/vaccines/double/en/

NOT TRYING TO WIN AN ARGUMENT



NOT TRYING TO WIN AN ARGUMENT

36,066,010 (doses) eventually shipped in 83 deployments, resulting in 104 vaccination campaigns in 22 countries...

https://www.sciencedirect.com/science/article/pii/S0264410X19311855

...ONE OF THOSE 22 COUNTRIES WAS SIERRA LEONE



VACCINATION

OBJECTIVE: TO VACCINATE 95% OF PEOPLE LIVING IN SLUMS AFFECTED BY THE FLOODING

FIRST VACCINATION DOSE: SEPTEMBER 14-17

SECOND VACCINATION DOSE: OCTOBER 5-10

4 APPROACHES:

- House-house
- School-based temporary vaccine sites
- Fixed sites at 22 affected PHUs
- Outreach/mobile posts at displacement camps

RESULTS:

96.1% OF TARGET POPULATION REACHED IN FIRST ROUNDS

95% OF THOSE WHO RECEIVED FIRST VACCINE ALSO RECEIVED THE SECOND ROUND





OUR ALLIANCE

PROGRAMMES & IMPACT

INVESTING IN GAVI

#VACCINESWORK

NEWS & RESOURCES



GROWING MARKET

Demand for the oral cholera vaccine has increased over the past years. In the 15 years between 1997 and 2012, just 1.5 million doses of cholera vaccine were used worldwide. In 2018 alone, this figure had increased to over 17 million doses.

Supply and Demand Who Decides?



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3/23/2021

Capitalism Is What Will Defeat Covid - WSJ

OPINION | THE WEEKEND INTERVIEW

Capitalism Is What Will Defeat Covid

The vaccine revolution didn't happen on its own. It's a product of decades of planning and investment.

By Allysia Finley

March 19, 2021 6:24 pm ET

Behold the paradox of this pandemic moment: Large corporations are political villains, derided on the left and right. Yet the main, and perhaps only, reason the Covid-19 scourge is easing is vaccines developed by Big Pharma.



Dr Tedros Adhanom Ghebreyesus

Director-General



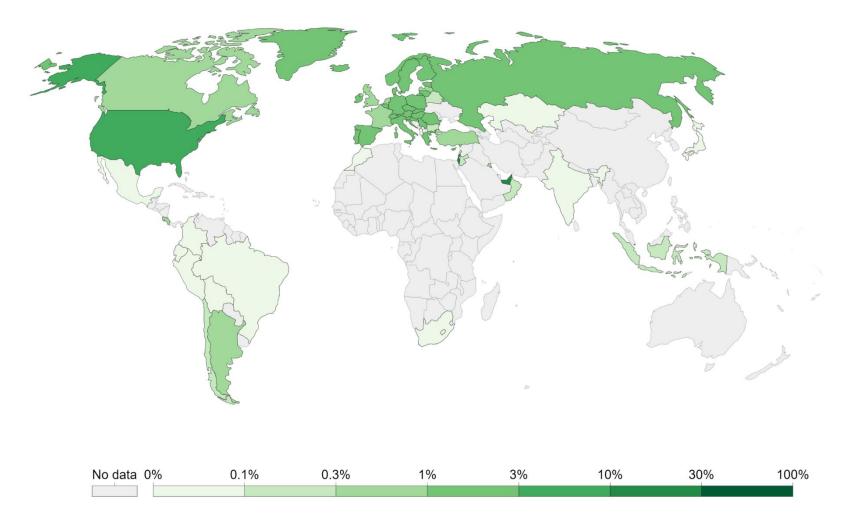
More than 39 million doses of vaccine have now been administered in at least 49 higherincome countries. Just 25 doses have been given in one lowest-income country. Not 25 million; not 25 thousand; just 25.

I need to be blunt: the world is on the brink of a catastrophic moral failure — and the price of this failure will be paid with lives and livelihoods in the world's poorest countries.

Share of the population fully vaccinated against COVID-19, Feb 12, 2021



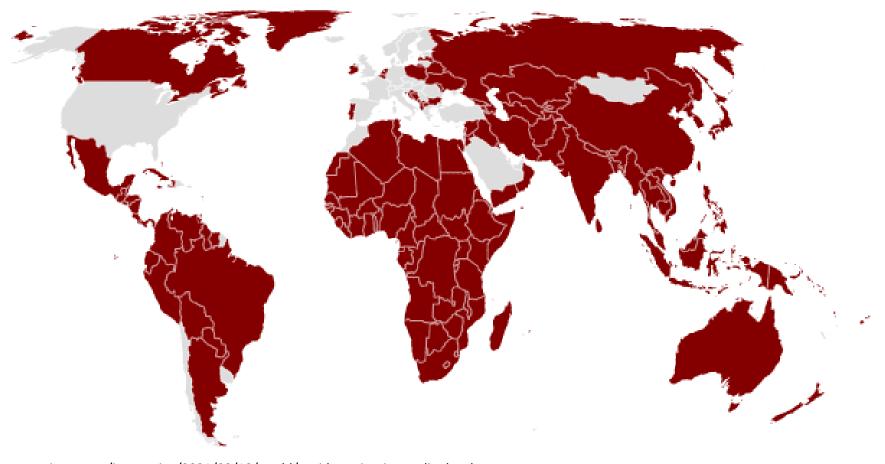
Share of the total population that have received all doses prescribed by the vaccination protocol. This data is only available for countries which report the breakdown of doses administered by first and second doses.



Source: Official data collated by Our World in Data – Last updated 22 March, 09:40 (London time)

OurWorldInData.org/coronavirus • CC BY

These 148 countries, mostly low income, are on pace to take until next year or even longer.



Source: https://www.nytimes.com/interactive/2021/03/19/world/covid-vaccine-inequality.html

South Africa paying more than double EU price for Oxford vaccine

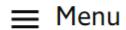
Health ministry quotes says premium is because government did not pay into research and development effort

- Coronavirus latest updates
- See all our coronavirus coverage



▲ Healthcare workers chat at a temporary coronavirus ward at Steve Biko Academic Hospital in Pretoria, South Africa. Photograph: Reuters





Weekly edition

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BEHIND THE NEWS

Are barbers the secret weapon against vaccine hesitancy?

Some African-Americans are reluctant to get the covid jab. Near Washington, DC, one man is trying to change people's minds

Vaccine hesitancy may not be why people of color are getting Covid shots at a lower rate

Analysis by Harry Enten, CNN Updated 1202 GMT (2002 HKT) March 21, 2021



(CNN) — Poll of the week: A new CBS News/YouGov poll finds that 22% of Americans say they have gotten at least one dose of a Covid-19 vaccine. An additional 33% of Americans say they will get one when it is made available to them, while 22% say they may get it. Just 22% say they will not get one.

This poll is in line with other data on the subject.

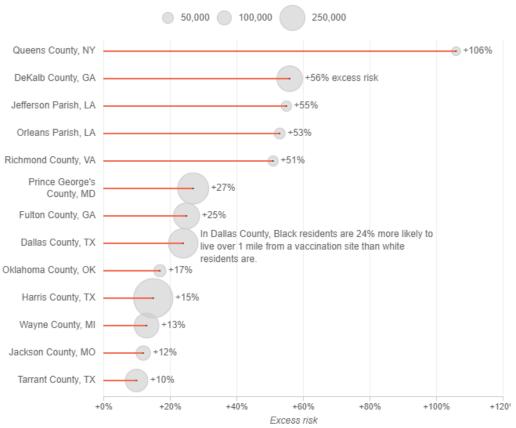
What's the point: America's vaccination effort is among the best in the world. One of the few problems so far has been a racial inequity in who is receiving the vaccine. White Americans have received a disproportionate percentage of vaccinations compared with Black and Hispanic Americans. A lot of politicians have claimed this is because of vaccine hesitancy from people of color.

A look at the polling data suggests, however, that this may not be the case. The lower vaccination rates may, at least in part, be because of problems with access to the vaccine.

Where Black Residents Live Farther Than White Residents From Potential Vaccination Sites

Urban counties by Black residents' excess risk of living more than 1 mile from a potential vaccination site, compared with white residents





Notes: Only counties with greater than 100,000 Black residents are shown. Potential vaccination site defined as a pharmacy, federally qualified health center, rural clinic or outpatient hospital.

Source: University of Pittsburgh, West Health Policy Center

Credit: Ruth Talbot and Sean McMinn/NPR







CORONAVIRUS

They're chasing the dream of getting a Covid-19 vaccination

Vaccine chasers are using everything from word-of-mouth to social media to score a shot.



A couple make their way with others in the "by appointment only" line to get vaccine shots to protect against the coronavirus at the Balboa Sports Complex in Encino, Calif., on Jan. 27, 2021. Mel Nelson / Los Angeles Times via Getty Images

Feb. 11, 2021, 9:57 PM GMT

By Matteo Moschella and Corky Siemaszko

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Rapid vaccine rollout in some states backfired, creating too high a demand













04.03.2021 - Press releases

Ebola: public reluctance hinders vaccination

Guinea has been facing a resurgence of the Ebola virus since February 13. The population's reluctance to be vaccinated may hamper response efforts. The Swiss children's relief organisation Terre des hommes is supporting the health authorities in the vaccination awareness campaign among communities affected by the epidemic.

"It has been our commitment to use every tool available to combat the spread of cholera in Haiti and ultimately save lives. The successful completion of the first phase of this vaccination campaign gives us hope that with strong partnerships, we can achieve what may initially seem like a daunting goal."

Max Raymond Jr.

http://www.redcross.org/news/article/American-Red-Cross-Funded-New-Cholera-Vaccination-

