Vaccine Distribution & Justice

PHIL 334: Pandemic Ethics

The Problem:
We have a limited supply of vaccine
Allocation involves trade-offs

This means that we need to think about the values and goals that we want to prioritize in distribution.

Distributive Justice

Theories of the just distribution of benefits and burdens by the state.

They offer moral guidance concerning the choice of policies and processes that affect the distribution of benefits and burdens in society.

Should we aim to ...

- ... reduce **years of life** lost overall?
- ... reduce harms to already **disadvantaged communities**?
- ... **eradicate the virus** as quickly as possible?
- ... protect those who already made outsized **contributions to the fight** against COVID-19?
- ... distribute the vaccine in ways that **serve ongoing research**?
- ... target critical infrastructure (e.g., schools, garbage collection, political leaders)?

Domestic

Vaccine Distribution in the USA

CDC Guidelines

States don't have to follow this federal guidance.

1a. The first group should be health care workers, and residents of nursing homes and other long-term-care facilities

1b. People 75 and older and "frontline essential workers," including first responders; grocery-store, public-transit and postal workers; and teachers and day care providers.

BE COVIDSAFE

Get Vaccinated for COVID-19

Getting the COVID-19 vaccine not only helps to protect you and others around you, but is also a vital step for the recovery of San Diego County. COVID-19 vaccinations are being provided in phases to eligible groups based on federal and state guidance. **Groups within each phase and distribution timelines are subject to change pending vaccine supply and local recommendations.** For the latest vaccination information, please visit coronavirus-sd.com/vaccine.

Phase 1A* – *as of December 14, 2020*

- ☑ Staff working in acute care, psychiatric, and correctional facility hospitals*
- ☑ Staff working in skilled nursing facilities, assisted living facilities, and similar settings
  - Includes residents in these long-term care settings
- ☑ Paramedics, EMTs, and other staff providing emergency medical services
- ☑ Staff working in dialysis centers
- ☑ Staff working in behavioral health residential facilities
  - Includes residents in these behavioral health residential facilities
- ☑ Vaccinators
- ☑ Staff providing intermediate care, for persons who need non-continuous nursing supervision, and supportive care
- ☑ Staff providing in home health-care and in-home supportive services
- ☑ Community health workers, including promotores
- ☑ Public Health field staff
- ☑ Staff working in primary care clinics
- ☑ Staff working in Federally Qualified Health Centers
- ☑ Staff working in Rural Health Centers
- ☑ Staff working in correctional facility clinics
- ☑ Staff working in urgent care clinics
- ☑ Staff working in behavioral health non-residential or outpatient facilities
  - Includes residents in these behavioral health non-residential or outpatient facilities
- ☑ Other settings and healthcare personnel, including specialty clinics, laboratory workers **, dental/oral health clinics, pharmacy staff, and funeral workers, massage therapists, and others
- ☑ Couriers for vaccines and emergency supplies
- ☑ Janitorial workers providing support to the healthcare sector

Phase 1B*

- ☑ Persons aged 75 years and older - *as of January 18, 2021*
- ☑ Persons 65-74 years of age - *as of January 23, 2021*
- ☑ Persons at risk of occupational exposure through their work in the following sectors - *as of February 27, 2021:*
  - ☑ Emergency Services, including emergency operations and disaster service workers, fire, law enforcement, social workers, and utility workers
  - ☑ Childcare and Education
  - ☑ Food and Agriculture
- ☑ Janitorial workers in all other sectors

Pre-existing Social Inequality

What Role Should Social Inequality Play?

"The virus has spread in the United States along the fault lines of social inequality. Vaccines and medical interventions won't roll out to protect people who have been hit hardest unless we **allocate based on social vulnerability**. The National Academies of Science, Engineering and Medicine has said we need to do this using the CDC's *Vulnerability Index* which the agency developed for public-health emergencies. It can pinpoint geographic areas based on factors like living in crowded housing as well as socioeconomics and race and ethnicity."
- Gregg Gonsalves

Research Goals

How Should Research Goals Figure in the Roll-Out?

Siddhartha Mukherjee:
As a scientist and as an immunologist, I'd like to bring up another consideration—or another kind of value. I see value in more broadly distributing at least a little vaccine in the earlier phases so that we can understand its success and failure rates in the real world, across various populations. In the trials that have been done so far, Pfizer's and Moderna's vaccines were each tested on 30,000 to 40,000 people. Now we are in a phase of massive expansion. We need a broader range of people to figure out, Is this really working? Is it really preventing infections across all the groups that need to be protected? Six months from now, we don't want to still be asking that question... For instance, we'd like to know how the vaccine affects women who are pregnant and people who are partially immuno-compromised, and young kids. And we'd like to know about drug-vaccine interactions—if a particular drug you're taking changes the effectiveness of the vaccine.

Should Fairness Matter at All?

Should Vaccine Distribution Be Fair?

"Say ... that you had 20,000 vaccine doses to distribute. There are about 20,000 cities and towns in America. Would you send one dose to each location?

That might sound fair, but such a distribution would limit the overall effect. Many of those 20,000 recipients would be safer, but your plan would not meaningfully reduce community transmission in any of those places, nor would it allow any public events to restart or schools to reopen."

Vaccine Distribution Shouldn't Be Fair

Priority should be given to methods that will save more lives and bring back the economy more rapidly.

By Tyler Cowen

Should Vaccine Distribution Be Fair?

"Alternatively, say you chose one town or well-defined area and distributed all 20,000 doses there.

Not only would you protect 20,000 people with the vaccine, but the surrounding area would be much safer, too. Children could go to school, for instance, knowing that most of the other people in the building had been vaccinated. Shopping and dining would boom as well."

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"In other words, if the first doses went (to choose a random example) to Wilmington, Delaware, the next batch of doses should go to the suburbs of Wilmington. In economics language, one can say that Covid-19 infections (and protections) have **externalities**, and **there are increasing returns to those externalities**. That implies a geographically concentrated approach to vaccine distribution, whether at the federal or state level."

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Should Vaccine Distribution Be Fair?

But wouldn't that be **unfair**?

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Should Vaccine Distribution Be Fair?

"Speaking of unfairness: Who else should get vaccine doses very early on?

NBA players, for one. Their vaccinations could be televised, and their nightly displays of scoring and rebounding would show the American people that vaccines are quite safe.

And how about early doses for leaders of the anti-mask movements? If they will take them, that is. Aren't they relatively likely to be superspreaders?"

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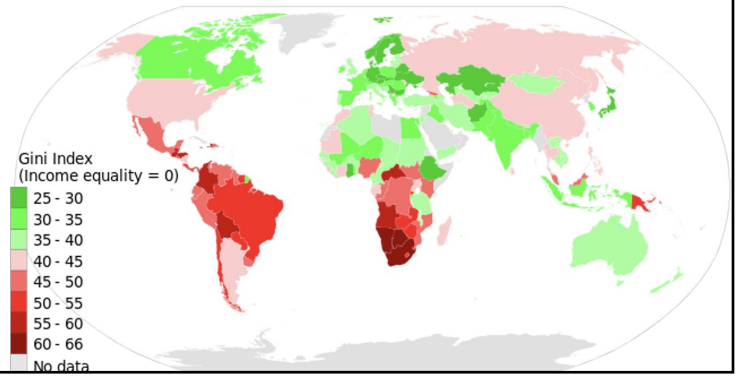
Global

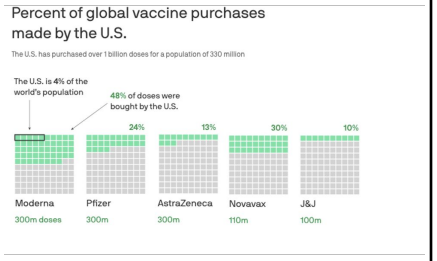
What Role Should Global Inequality Play?



Global Vaccine Inequality

The People's Vaccine Alliance has reported that in 70 lower-income countries, only one out of 10 people will get access to the vaccine in 2021.

It's not just the US - the EU has ordered enough vaccine to immunize its people twice.



Vaccine Nationalism

What Is **Vaccine Nationalism?**

Is Vaccine National Ethical?

"Some defend national partiality as ethical. Fellow citizens share "associative ties," common governmental, civic, and other institutions, and a sense of shared identity.

Also, the legitimate authority of representative government officials inheres in their representing and promoting the interests of their citizens. Plausibly, these relations support allowing countries to prioritize citizens over foreigners for vaccines.

Others view national partiality as unethical: People's entitlement to lifesaving resources should not depend on nationality."


POLICY FORUM

ETHICS: COVID-19

An ethical framework for global vaccine allocation

The Fair Priority Model offers a practical way to fulfill pledges to distribute vaccines fairly and equitably

What Do You Think?

Is Vaccine Nationalism Ethical?

"Regardless of whether some national partiality is ethical, unlimited national partiality is not. Associative ties only justify a government's giving **some priority** to its own citizens, **not absolute priority**.

Moreover, associative ties extend across national borders, and citizens of different countries share common institutions. Finally, national governments have crossborder responsibilities to help satisfy fundamental needs like basic healthcare, particularly in a global health emergency."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Is Vaccine Nationalism Ethical?

"Reasonable national partiality does not permit retaining more vaccine than the amount needed to keep the rate of transmission (Rt) below 1, when that vaccine could instead mitigate substantial COVID-19–related harms in other countries that have been unable to keep Rt below 1 through ongoing public-health efforts.

When a government reaches the limit of national partiality, it should release vaccines for other countries.

This makes an account of fair allocation among countries relevant to reasonable national governments"


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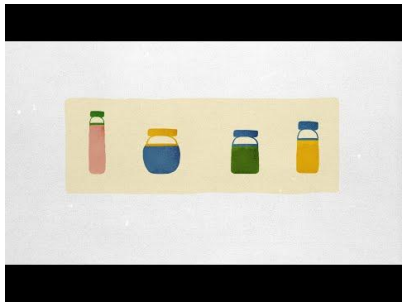
COVAX & The Fair Priority Model

What Is COVAX?

It aims to accelerate the development and manufacture of COVID-19 vaccines, and to guarantee **fair and equitable access** for every country in the world.

Proportionality Principle:
Every country gets vaccines for 20% of its population.

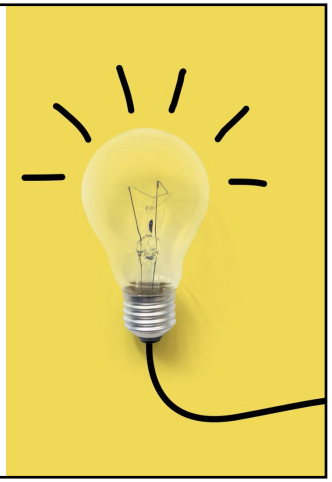
Is this a fair and equitable way of distributing vaccines?



Fair Priority Model - Lisa Herzog et al.

Three values of particular relevance:

1. Benefiting people and limiting harm,
2. Prioritizing the disadvantaged, and
3. Equal moral concern.



Fair Priority Model

Phase 1: Reducing premature death

Metric: Standard Expected Years of Life Lost (SEYLL) per dose of vaccine.

SEYLL calculates life years lost compared to a standardized reference life table—that is, a person's life expectancy at each age as estimated on the basis of the lowest observed age-specific mortality rates anywhere in the world.

Why SEYLLs?

Justification: SEYLL has three major advantages.

First, it regards all deaths as important but earlier deaths as particularly important. Thus, it integrates the aims of limiting harm and of prioritizing the least advantaged, particularly because early deaths are more frequent in low-income countries and are a proxy for being disadvantaged overall.

Second, SEYLL incorporates equal moral concern by valuing a life saved at a given age identically across countries, regardless of preexisting conditions or differences in national life expectancy.

Finally, SEYLL is a standard metric used in global burden-of-disease calculations.

Fair Priority Model

Phase 2: Reducing serious economic and social deprivations

Metric: Reduction in absolute poverty measured by poverty gap & Declines in gross national income (GNI) averted by administering vaccine.

- Prevents harm by recognizing a wide range of economic, social, and health deficits.
- Gives priority to the worst-off by prioritizing people in poverty.

Fair Priority Model

Phase 3: Returning to Full Functioning - Ending community spread of COVID-19

Metric: Ranking of different countries' transmission rates.

Justification: Prevents harm and gives priority to the worst-of by prioritizing countries with higher transmission rates.

Fair Priority Model

DISTRIBUTION PHASE	PRIMARY AIM	METRIC TO DISTRIBUTE VACCINE DOSES	HOW THE METRIC FULFILLS VALUES	PRIORITIZATION
Reducing premature deaths	Reducing foreseeable premature deaths directly or indirectly caused by COVID-19.	Standard expected years of life lost (SEYLL) averted by administering vaccine.	Prevents substantial harms and gives priority to the worst-off by giving weight to premature deaths. Recognizes equal moral concern by valuing a life saved at a given age identically across countries.	Priority to countries that would reduce more SEYLL per dose of vaccine.
Reducing serious economic and social deprivations	Reducing serious economic, social, and fatal and nonfatal health harms caused by COVID-19.	SEYLL averted. Reduction in absolute poverty measured by poverty gap. Declines in gross national income (GNI) averted by administering vaccine.	Prevents harm by recognizing a wide range of economic, social, and health deficits. Gives priority to the worst-off by prioritizing people in poverty.	Priority to countries that would reduce more poverty, avert more loss of GNI, and avert more SEYLL per dose of vaccine.
Returning to full functioning	Ending community spread of COVID-19.	Ranking of different countries' transmission rates.	Prevents harm and gives priority to the worst-off by prioritizing countries with higher transmission rates.	Priority to countries with higher transmission rates.

Should Australia Receive Less of the Vaccine?

Countries, like Australia and New Zealand, have done an excellent job controlling the spread of the virus.

The Fair Priority Model suggests, then, that they should be deprioritized in the vaccine rollout.

Should they?

Fairness
Is it unfair for countries who, often through great sacrifice, were more successful in slowing the spread of the virus to receive less of the vaccine?

Incentives
Would this remove the incentives for such countries to participate in COVAX (or similar schemes in the future)?

How should vaccines be distributed globally? What ethical considerations are at play?

Questions?