A Summary Report on

Global Ethics Lecture - What is the Fair and Equitable Allocation of Scarce Medical Resources?

by
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Dr Ezekiel Emanuel, Vice Provost of Global Initiatives at the University of Pennsylvania, delivered the inaugural Global Ethics Lecture. He focused on a major area in recent public health discourse: the fair and equitable allocation of scarce medical resources. His lecture was divided into three main areas: (i) Resource allocation in the context of the COVID-19 pandemic, (ii) Allocation for future pandemic scenarios beyond COVID, and (iii) Incorporating Bioethics into Decision-making.

Resource Allocation in the context of the COVID-19 pandemic

Emanuel's primary focus in this section was on outlining how the COVID-19 pandemic exposed several public policy challenges that must be addressed, and that the future of bioethics must place greater focus on resource allocation rather than only traditional bioethical issues such as consent.

Comparing the global response to COVID against other cases of scarce resource allocation in the past 100 years, such as the discoveries of insulin and penicillin, Emanuel evaluated that it was similarly poor. While there was a general consensus by policymakers for vaccine and resource distribution to be fair and equitable, such a definition was vague and lacked substance in practice. However, he also acknowledged that many reports produced globally converged on similar substantive values and procedural principles, proposing similar priority groups.

Emanuel outlined a three-step process for allocation of scarce resources that bear in mind ethical considerations to achieve said fair and equitable distribution. Firstly, the underlying fundamental ethical principles and frameworks to be considered must be identified. Secondly, these values and frameworks must be used to delineate tiers of priority for these scarce resources. Lastly, these tiers of priority must be implemented in a way that realises those fundamental principles with fidelity. Such a process would apply to the problem of allocation both globally and within a country.

There are five fundamental ethical values, Emanuel identified, to bear in mind when considering resource allocation.

First is utility, where impact is measured in terms of promoting benefits and minimising harms. In the context of COVID, this meant going beyond the appeal of medical need. All people needed the vaccines, and the key issue was determining who needed it. A difficulty with measuring such objective benefits and harms comes when weighing long and short-term, and direct and indirect effects. Emanuel noted that many reports failed to adequately consider these when making recommendations. Measuring the utility of a vaccine if one chooses to prioritise the total life-years saved compared to prioritising quality life-years saved, for example, can call for different distribution strategies.

The second fundamental value is priority: Emanuel explained this as prioritising groups in a way that does not exacerbate existing disparities, vulnerabilities, and disadvantages within society. For example, Ontario prioritised adults from First Nations and Inuit communities in its vaccine distribution. Emanuel also mentioned how distribution strategies can contribute to such disparities, citing the example of States in the US which had online signups for vaccination. This disadvantaged poor communities who lacked stable internet access and transportation to vaccination centres.

The third value mentioned by Emanuel was equality. He distinguished the principle of equality from treating all people equally, instead focusing on having equal moral concern for all people – this helps address the vagueness of "fair and equitable" mentioned earlier. The COVAX strategy of distribution by population size, Emanuel noted, was flawed as it did not prioritise minimising harm by giving priority to those most at risk, which is not plausible if treating everyone with equal moral concern.

Therefore, the correct strategy was to base distribution on the prevalence and risk of COVID within a population group.

The fourth and fifth values were grouped under the umbrella of social contribution, and delineated by the recognition and rewarding of either past value (Reciprocity) or potential contribution (Instrumental value). Two examples of reciprocity Emanuel cited were the priority given in the US to veterans of the armed forces in job applications, and certain countries' organ donation systems where registered donors are given priority when in need of a transplant. However, Emanuel firmly stated that reciprocity should never override other values, and only be used to differentiate among similar recipients. While reciprocity has its place in encouraging people to contribute to society and rewarding such contributions, Emanuel firmly opined that there are other sufficient factors that perform a similar role.

Instrumental Value, on the other hand, prioritises allocations that indirectly increase the realisation of other values. This could mean prioritising healthcare workers as that has the greatest potential to minimise future harm to the population as a whole. A plausible allocation would combine all these values and recognise what is important at different stages of response. Prioritisation differed between countries according to the various values which they adhered to, but that is acceptable as long as such a prioritisation is justifiable.

Emanuel also pointed out that many countries failed to distinguish procedural principles from substantive values in responding to allocation issues during COVID. Procedural principles such as transparency, engagement, and evidence-responsiveness are not determinative of allocation. Rather, they inform the ethical values to be considered.

Overall, Emanuel outlined certain key lessons to take from the global experience with COVID, primarily related to implementation of a distribution framework. Distribution should not be population-based, should be based on multiple values rather than adherence to any one, and should be active in nature. Furthermore, adherence to a rigid priority tier system led to vaccine wastage, and allocation should serve multiple tiers at once. After all, the best ethical framework is only as good as its implementation.

Beyond COVID-19: Malaria, Mpox, and Cholera

Emanuel then moved on to apply these lessons to current allocation problems, focusing on the three diseases named.

For malaria, a majority of the health burden is on children under 5, with an overwhelming majority of cases concentrated in the WHO African region. Ghana, Kenya, and Malawi participated in a randomised trial to test a new vaccine which proved to have moderate efficacy in children under 5. However, supply is short and expected to remain insufficient to meet demand in the initial 4-6 years of mass production, and so the issue arises of how to allocate the vaccines.

WHO's initial distribution strategy focused on reciprocity, prioritising the three trial-participating nations. However, Emanuel emphasised again how reciprocity should not be a dictating value, but only break ties between others. Prioritising minimising harm would likely mean targeting the vaccine to at-risk populations including young children and pregnant women.

Emanuel also cited monkeypox as an example of how different values may conflict in considering allocation. While monkeypox is endemic in African countries, with about 300 million people under age 40 without smallpox vaccination, there is a larger unvaccinated population in non-endemic locations.

Therefore, minimising harm may call for greater distribution to other countries. However, prioritising not exacerbating existing inequalities may call for greater focus on African nations who have historically been disadvantaged with respect to vaccine coverage. Even when considering only harm minimisation, there are many routes that could be taken. Reducing overall infections could mean targeting vaccines to those most exposed or most vulnerable to infecting others, such as lab workers or those with multiple same-sex partners. On the other hand, construing harm minimisation as reducing deaths might mean targeting vaccines at those most at risk of developing complications such as immune-compromised patients.

The final disease Emanuel cited was Cholera, which had 50% more outbreaks in 2022 than previous years. Vaccine supply and production will not meet global demand, and priority tiers must be established to determine allocation. When considering allocation, Emanuel focused on the burden of disease in a country. Prevalence and access to rehydrating therapies have a key determinative role in assessing how badly a country will fare in a Cholera outbreak, and so vaccines should be targeted at those likely to suffer most greatly. Haiti, Emanuel praised, implemented a good distribution strategy, prioritising problem areas with the highest at-risk population.

Incorporating Bioethics into Decision-making

Emanuel ended his talk by addressed the need for ethics to be integrated into emergency decision-making and policy formulation. Too often, policy-makers think they need to start from scratch when responding to a new challenge or crisis. In reality, well-developed ethical frameworks informed by precedents already exist and are readily adapted. Just as decision-makers are expected to make evidence-based policies, such policies should also be ethics-informed. Just as evidence is only as good as its interpretation, a framework is only as good as its implementation, and ethics is necessary to guide policy-making in deciding how best to distribute scarce healthcare resources.

Concluding Thoughts

It is fortunate that Ezekiel Emanuel has been working on such pressing issues throughout the pandemic, and has managed to play a key role in global response to COVID-19 resource allocation. He has made an influential argument for ethics to have a greater place at the table of policy formulation, and continues to stimulate discussion about the role of ethics within difficult practical problems. Ethics is not about arriving at a correct answer, but a defensible and justifiable one.