Rationing health and social goods during pandemics: guidance for Ghanaian decision makers

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Abstract

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The paper discusses and critiques some moral considerations (utilitarian, equity, equal worth, urgent need, and the prioritarian principles) for rationing and their relevance in the Ghanaian context. This contribution may facilitate ethical decision-making during COVID-19 in Ghana and other African settings where hardly any rationing guidelines exist.
Rationing health and social goods during pandemics: guidance for Ghanaian decision makers

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Keywords
Rationing, health and social goods, pandemics, COVID-19, guidance, decision-making, Ghana
Background

In December 2019, a few cases of a severe form of viral pneumonia were reported from Wuhan city, China. Now christened COVID-19, the illness was identified as a novel Coronavirus disease, caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). From that small beginning, the disease has evolved into a pandemic.[1] A lag period in transmission may have precipitated a false sense of security in the African region. However, following the World Health Organization (WHO)’s declaration of COVID-19 as a pandemic on March 11th, 2020[2], and with many African countries experiencing rising number of cases, governments in this region have instituted several COVID-19 countermeasures. These include public education, thermal screening at ports of entry to identify people with fever, quarantining of the exposed, isolation of the infected, travel restrictions, targeted lockdowns, as well as faith-based interventions.[3, 4]

As of July 14, 2020, there have been 12,929,306 confirmed cases of COVID-19 globally, including 569,738 deaths[1]. The corresponding statistics for Africa were 610,807 cases and 13,456 deaths[5]. Initial estimates showed that about 20% of diagnosed COVID-19 cases were serious enough to require hospitalization, including 5-10% who needed intensive care/treatment.[6] In the United States, hospitalization rate among COVID-19 cases was estimated as 4.6 per 100,000 population.[7] Owing to the chronic shortage of healthcare goods such as health facilities, intensive care unit (ICU) beds, health personnel in Ghana, even if a small fraction of the over 30 million residents were to test positive to COVID-19, become critically ill or require hospital-based care, a difficult triage calculus will ensue.

Although healthcare rationing has been widely discussed in global bioethics literature,[8-12] existing scenarios, and analyses have focused on high income countries,[9, 13] except for very few disease areas such as HIV treatment where some analyses related to implicit and explicit rationing of antiretrovirals in African countries exist.[14, 15] The inadequate attention to the subject of rationing is not a sign of unimportance. Indeed, many situations exist in African, and Ghanaian medical practice where triaging is required. For instance, during seasonal cholera outbreaks where there are limited beds or supplies, or in non-disease context where a midwife is expected to manage several expectant mothers in labour in a tiny labour ward with a single delivery bed. Therefore, the lack of scholastic discourse, and by extension, professional and democratic engagement on the subject constitutes an unacceptable ethical omission. The absence of clear guidelines relegates the rationing of healthcare goods to the discretion of individual healthcare providers. This is unfair to the healthcare worker. Secondly, such ad hoc decision-making creates inefficiencies and adverse health outcomes. Often, it is the shoulders of these health workers on which rationing-related moral injury rests.

In 2015, we assessed the ethics-sensitivity of Ghana’s plans to respond to a future influenza pandemic and noticed that several ethical issues had been unanticipated, unacknowledged, and unaddressed in the plan.[16] Absence of guidelines on allocation of scarce resources, and inaction regarding stockpiling vaccines/antivirals/personal protective equipment (PPEs) were uncovered. We alerted the Ghanaian government that such deficiencies needed to be addressed to forestall rolling out unjust and ethically indefensible actions with real negative consequences during a pandemic. Five years following this warning, little has changed[17], except that there is a pandemic.

As of July 14, 2020, Ghana had over 24,988 COVID-19 cases and 139 deaths, making it the country with the fourth highest number of cases in Africa[18]. With less than 1 hospital bed and
0.2 physicians per 1,000 people[19], and an estimated 1.8 medical doctors, 42 nurses/midwives per 10,000 population[20], the country’s constrained healthcare system cannot escape rationing during this pandemic. Even in usual times, the Ghanaian healthcare system has been in a state of chronic scarcity of resources. The pandemic will amplify the scarcity.

This scarcity of healthcare resources is not peculiar to Ghana but is pervasive across the African continent. The WHO COVID-19 readiness study found that about 9 intensive care unit beds are available per 1 million people across the continent. Due to these challenges, the United Nations has warned of a potential loss of 300,000 to 3.3 million lives in Africa due to COVID-19[21]. Thoughtful planning promotes better rationing outcomes. Yet governments in Africa have failed to develop robust ethical plans for pandemics, and ethicists in this region have been unable to ignite public discourse on rationing[17]. Therefore, we aim to initiate a debate on how rationing health and social goods (including food, health facilities, health personnel, ICU beds, PPEs, testing kits, treatment and vaccines) could be done ethically in Ghana and by extension, Africa – during COVID-19 and beyond.

Rationing scarce resources
The quintessential and persistent challenge facing both public health professionals and bioethicists has been devising an appropriate approach to ration limited resources ethically [12]. Although guidelines on rationing exist,[9, 11, 13] we concur with Scheunemann, and White[10] that, rationing is context sensitive. Thus, a justifiable rationing decision in one setting may be objectionable in another. The WHO has advised that when adopting and applying existing rationing frameworks, the context, or the specific healthcare resource should be considered.[22]

In a theoretically homogeneous context where each person’s interest counts equally, limited resources could be shared using the principle of blind justice which dictates a random allocation, or a more routine first-come, first-served basis. The scheme may be appropriate to guide the allocation of scarce resources among individuals who can be expected to derive the same benefit from the resource, for example, sharing ventilators among persons with similar clinical indicators for benefit.[22] In real life, however, this approach does not wisely steward scarce resources. Allocation should be more purposefully cost-effective.[23] Moreover, a first-come first-served approach favors those with greater access and so perpetuates unfairness.

Therefore, this principle may only be invoked to guide allocation decisions among individuals or populations who can be expected to derive the same benefit from the resource. For instance, allocation of limited PPEs to frontline health workers playing the same role or rationing of ventilators among those with similar clinical indicators for benefit, or once available, rationing of COVID-19 vaccine among individuals with comparable risk profiles.

There are other approaches to rationing limited resources. Veatch[24] identifies two basic moral approaches of rationing – utility and justice. Other commentators specify moral principles that may guide rationing.[10, 12, 25, 26] We outline below these, and other moral considerations regarding rationing and their relevance in the African context – during COVID-19.

Rationing based on Utilitarian principle
The most widely used principle in formulating health policy is utilitarianism.[25] Although many views on the theory exist, utilitarianism is generally held to be the view that the morally right action is the action that produces the most good.[27] As a form of consequentialism, the right action is understood entirely in terms of consequences produced.[28] Thus, the rationing option with the best balance of beneficial over harmful “consequence” is favored. In the context of
 rationing COVID-19 goods/services/care, the principle dictates giving priority to COVID-19 patients who will respond better to such health ministrations. This excludes patients whose condition has progressed to a point where only a temporary health benefit can be expected, the terminally ill, or the aged with several underlying conditions that compromise the chance of recovery. In this regard, the Italian recommendations for rationing ICU resources for COVID-19 patients flags age as a potential criterion.[29]. However, the unchecked pursuit of utility conflicts with common moral intuitions about fairness and protection of the vulnerable.5,14 Indeed, given that socially disadvantaged groups suffer a greater burden of disease than do more privileged groups, this could further compound prevailing systematic disadvantage.[30] In addition, for utility to be a practical rationing guideline, the term “consequence” (whether it be preventing new COVID-19 infections; preventing COVID-19-related deaths; preventing infection among health professionals; preventing infection among the political class; or the homeless) needs to be unpacked.

For practical application, the WHO suggests that the principle be consulted to justify the allocation of resources in ways that does the most good or minimize the most harm, or using available resources in ways that saves the most lives possible. Second, the principle may be invoked to guide the allocation of scarce resources that confer substantially different benefits to different individuals (e.g. sharing ventilators to those expected to derive the most benefit or preferentially prioritizing Healthcare workers for PPEs.[22]

Rationing based on the equity principle
Equity requires that resources are shared so that outcomes (positive or negative) are distributed as fairly as possible. As a principle, equity’s goal is to reduce disparities in health status among different groups in society.[25] In the context of the COVID-19, equity would call for prioritizing those at greatest risk of infection, severe disease, or death, including those who suffer health disparities due to systematic disadvantage (poverty, racism, etc.). Equity does not require equal access to all resources.

For instance, prioritizing health workers for access to PPEs will prevent infection in them and in the general population, ultimately saving lives and curtailing the spread of COVID-19 in the population. In addition, disadvantaged populations may be protected by measures other than allocating health resources – for example, providing paid leave from work due to illness or providing housing assistance to those facing homelessness.

Equal worth principle
The principle of equal worth calls upon us to value each person’s life independently of his or her economic or other value to society or to others, and regardless of social position or stigma.[31] The principle prohibits discrimination based on perceptions of an individual’s social worth. In this context, the politician and the hawker, the citizen and the refugee are all humans and should be equally respected. Each person’s interests count equally unless there are good reasons that justify the differential prioritization of resources. This principle frowns upon rationing practices, where the political class, and the privileged (who usually wield political, financial, and normative power) are prioritized.[30]. Other irrelevant characteristics in rationing decision-making are race, ethnicity, creed, ability, or gender of potential beneficiaries.
The urgent need principle
Urgent need principle is stated by Brock[32] as follows: “People’s medical needs give rise to moral claims to the health care resources necessary to meet those needs, …equally urgent needs give rise to equal moral claims, and…more urgent needs give rise to stronger moral claims”. In the context of COVID-19 response, this principle prioritizes those who might die soonest from non-receipt of resources, or those who will be worst off if receipt of resources is delayed.

In practice, the principle may be invoked to justify the allocation of resources to those in greatest need or those most at risk; or to guide the allocation of resources that are intended to protect those at risk (e.g. PPEs for health care workers, vaccines for those at highest risk of infection and severe illness).

The prioritarian principle
The prioritarian principle requires that social and health goods are provided to the least advantaged members or groups in society.[26] The least advantaged in the context of COVID-19 might be the poorest, or the youngest; or the elderly, or the homeless, or the stateless.

A prioritarian might consider preferentially allocating COVID-19 goods to the young over the old because they have had the least chance to live through life’s stages, the fair innings strategy.[33] This “life cycle” principle, has been advocated as a way to allocate ventilators during a pandemic.[8] Of note, when used alone to guide allocation decisions, the life cycle principle ignores prognostic differences among individuals. This undermines fairness and efficiency. Whatever criterion is used to identify the prioritized group or individual, the decision-making when done deliberatively lessens the moral burden of the distributor.

Discussion
The question of which moral principle best guides rationing decisions during COVID-19 is relevant. In a morally pluralistic Africa, it is not unreasonable that reasonable people are unable to agree about which single principle to adopt. Therefore, we concur with Laar[15] and White et al[8] that multi-principle allocation strategies should be considered. For example, a recent WHO guidelines note that an allocation scheme for PPEs might find its justification in a principle prioritizing those most at risk as well as a principle prioritizing those tasked with helping others, which would support priority allocation of PPE to health care workers[22]. Aside being morally pluralistic, Africa often claims to be more communitarian than other parts of the world. Thus, such commitment to the common good should help to promote public support for rationing protocols, rather than everyone insisting on having what they as individuals deem to be optimal resource allocation for themselves. That said, among the eligible it still may be morally necessary to ration based upon resources needed to treat; the opportunity for home care, the protection of health care workers and the realistic odds of efforts at treatment making any difference to the fate of the sick In the context of COVID-19, we agree with existing guidelines that health workers who are currently pulling the tight rope of duty-to-care versus self-preservation be prioritized for PPEs. Given the central role of healthcare workers in the fight against COVID-19, a defeat to the healthcare worker is a defeat to the entire health system, and a defeat to all. Beyond health workers, decisions about who benefits from COVID-19-related health and social goods must be motivated by public health principles. As argued by Gostin et al[34], this should center on prevention of SARS-CoV-2 transmission, protection of individuals at highest risk, meeting societal needs, and promoting social justice. In the African context, protecting public health may mean prioritizing resources for people in high risk settings such as slums, homeless hawkers, local transportation system, where the virus can easily from person to person.
Conclusions

As the question of how to ration limited resources or which moral principles should guide response to the current pandemic lingers, development of context-specific guidance is critical. We have provided high-level guidance that can be used to steer rationing decision-making. We recommend that multi-principle allocation strategies be considered in rationing decision-making. Whatever principles are chosen, such should prioritize transparency and fairness. To the extent possible, such processes should involve the public and be made in advance, with clearly communicated rationales. It is also worth noting that decision-making around pandemic induced scarcity affects both COVID-19 patients as well as non-COVID individuals with other dire medical conditions.

List of abbreviations

- COVID-19: Coronavirus Disease 2019
- ICU: Intensive care unit
- PPEs: Personal protective equipment
- SARS-CoV-2: Severe acute respiratory syndrome coronavirus 2
- WAHO: West Africa Health Organization
- WHO: World Health Organization

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Authors’ contributions
AL conceived the manuscript idea and drafted the manuscript. DB, RO, MEL, BR, and AC critically reviewed the draft manuscript. All authors approved the final version.

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