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"No Jab, No Entry": A Constitutional and Human Rights Perspective on Vaccine Mandates in Ghana

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Abstract

As part of global efforts to reach herd immunity to stem the spread of COVID-19, the government of Ghana in 2021 declared December as the month of vaccination. Along with the declaration were statements about the government's intention to make vaccination mandatory in January 2022 for select groups of persons and to restrict access of unvaccinated persons to certain public spaces. The directives attracted varied reactions since they touched on constitutionally guaranteed fundamental human rights. Later, in March 2022, the president eased some restrictions, such as mask wearing and social distancing at public events but subject to all users being fully vaccinated. This paper analyzes the constitutional and human rights implications of a vaccine mandate in Ghana. It answers the question, Is mandatory vaccination necessary and appropriate given the COVID-19 situation in Ghana? I make a case for finding a reasonable balance between the personal liberties of Ghanaians and the state's responsibility to protect public health. Using the proportionality test, I argue that while mandatory vaccination is permissible within Ghana's legal and constitutional framework, a tiered approach is preferable.

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Introduction

By the end of March 2022, about 35% of the world's population—mostly in low-income countries—was still yet to receive their first dose of the COVID-19 vaccine.[1] In Africa, only 15.3% had been fully vaccinated and 5.1% had received their first dose as of March 31, 2022. Ghana was the first African country to receive COVID-19 vaccines, which it welcomed on February 24, 2021.[2] Mass vaccination of the population began on March 1, 2021. However, as of March 31, 2022, only 16% of the population had been fully vaccinated and 12% had received their first dose.[3]

In October 2021, the World Health Organization released the *Strategy to Achieve Global COVID-19 Vaccination by Mid-2022*, which set a global target of vaccinating 40% of each country's population by 2021 and 70% by mid-2022.[4] In a bid to meet these targets, the government of Ghana rolled out several measures, including declaring December 2021 as the month of vaccination, releasing directives for the mandatory vaccination of certain groups of persons, requiring all travelers coming into and leaving the country to provide proof of vaccination, and allowing public events to be conducted at total capacity subject to all participants being fully vaccinated.[5] Though the vaccine mandates employed are fairly lax—except for the entry points into the country by air, sea, and land—some commentators have criticized them for several reasons, including that they violate constitutionally guaranteed fundamental human rights.[6]

Through a doctrinal analysis of relevant legal provisions and case law, this paper uses the proportionality test to examine the appropriateness of Ghana's vaccine mandate regime from a constitutional and human rights perspective. It asks, Is mandatory vaccination necessary and appropriate, given the COVID-19 situation in Ghana? I show that mandatory vaccination is compatible with Ghana's constitutional, legal, and human rights framework. In particular, under certain conditions, mandatory vaccination is proportionate to realizing the government's public health objective and does not violate the fundamental human rights guaranteed in the 1992 Constitution. I further argue that in meeting those preconditions, the government should adopt a tiered approach that progresses from more persuasive to sterner measures.

The rest of the paper is structured as follows: I begin by highlighting the reasons for vaccine hesitancy in Ghana, as well as the state's decision to use vaccine mandates as a response to this hesitancy. Next, I explore how the state has attempted to balance affected constitutional and human rights with its responsibility to protect public health. In this section, I show how the proportionality test can be used to achieve such a balance. In the following section, I use the proportionality test to explore whether mandatory vaccination in Ghana is appropriate. Finally, I conclude with recommendations on how Ghana's government can achieve its herd immunity target without compromising the fundamental human rights of Ghanaians by using equally effective alternatives, of which mandatory vaccination is the last.

Vaccine hesitancy and vaccine mandates: The Ghanaian report card

Vaccine hesitancy

Extensive vaccination of a targeted population is a potent tool for reaching herd immunity and reducing the spread of infectious diseases such as COVID-19.[7] The percentage of a target population to be vaccinated to achieve herd immunity varies with each disease but typically ranges from 50% to 90%.[8] Herd immunity for COVID-19 requires 60% to 70% of the population to be vaccinated.[9] However, vaccine hesitancy—a continuum between vaccine acceptance and refusal—is a significant challenge to massive vaccination and herd immunity.[10] Globally, vaccine hesitancy is not a new phenomenon. In Africa, high rates of vaccine hesitancy pre-COVID-19 had been reported and found to be threatening to public health since such hesitancy made communities more susceptible to infectious diseases and to outbreaks.[11] It is not surprising, then, that COVID-19 vaccine hesitancy in Africa is higher compared to the rest of the world.

By December 2021, when a substantial amount of COVID-19 vaccines had been made available in Africa, less than 8% of the continent's 1.3 billion people had been fully vaccinated, with only six countries attaining the global target of vaccinating 40% of their population by the end of 2021.[12] Against this high number of unvaccinated Africans, John Nkengasong, the then director of the African Centers for Disease Control and Prevention, said that African governments might have to rely on vaccine mandates if the hesitancy persisted. Yet the World Health Organization cautioned against such mandates until all other options had been exhausted.[13]

In Ghana, studies on vaccine hesitancy have generally focused on two main periods—before and after mass vaccination started in the country—among health care workers and the general population. For vaccine hesitancy among health care workers before the vaccine rollout, Martin Agyekum et al.'s study of 234 health care workers showed a 64.5% hesitancy rate, Benard Botwe et al.'s survey recorded a 40.7% hesitancy rate among 108 radiographers, while Robert Alhassan et al.'s survey of 1,605 health care workers found a 30% hesitancy rate.[14] On vaccine reluctance among the larger Ghanaian population before mass vaccination started, Theophilus Acheampong et al.'s survey of 2,345 Ghanaian adults revealed that about 21% were vaccine hesitant, while 28% were undecided.[15] Ken Brackstone et al. conducted three surveys of 5,901 Ghanaians to ascertain the temporal trends of vaccine hesitancy in Ghana. The surveys were conducted in August 2020 (before vaccines arrived in Ghana), March 2021 (immediately after mass vaccination began), and June 2021 (three months after vaccine rollout).[16] They found a 36.8% hesitancy rate in August 2020, which dropped to 17.2% in March 2021 and then increased to 23.8% in June 2021.

While vaccine hesitancy varies worldwide, a systematic review of vaccine acceptance showed the global acceptance rate among adult populations to be above 70%.[17] From the surveys above, Ghana's vaccine acceptance rate, which averages 55.3% among health care workers and 68.3% among the general population, is nearing the threshold of the global rate. Yet the number of fully vaccinated Ghanaians—only 17.2% as of April 8, 2022—suggests that the acceptance rates may be lower and hesitancy higher than the survey results indicate.[18] Several reasons account for the reluctance of Ghanaians to vaccinate against COVID-19. The most common are the lack of vaccine-related information and education and concerns over vaccine safety, effectiveness, and side effects.[19] Other reasons include mistrust of government, concerns over the vaccine's effect on fertility, spiritual and religious beliefs, influence from family and friends, long queues for vaccines, extended travel time to vaccination centers, personal aversion to vaccines generally, fear of getting infected through the vaccine, personal choice (lack of interest, vaccination unnecessary, no perceived risk if infected), and natural immunity due to already contracting COVID-19.[20]

The low vaccination rate in Ghana, coupled with the myriad drivers of vaccine hesitancy, has attracted opposing views. While some advocate for exploring mandatory vaccination, others oppose it. Alhassan et al., for example, recommend a mandatory targeted vaccination for health care workers.[21] Meanwhile, the group Concerned Ghanaian Doctors is against mandatory vaccination, but the Ghana Medical Association, the parent association for medical doctors, has dissociated itself from this group's view.[22]

Vaccine mandates

Mandatory vaccination has legislative backing in Ghana. Section 22 of the Public Health Act (PHA) allows the minister of health, by executive instrument, to order compulsory vaccination "generally or with reference to a particular district, area or place or with respect to a particular class or classes of persons." The PHA also authorizes the vaccination of travelers at the point of entry into Ghana.[23] Noncompliance is punishable by fine, a three-month imprisonment, or both.[24] An exception to compulsory vaccination is where the vaccination will be injurious to health in the opinion of the public vaccinator.[25] Natural immunity to the disease in question is also an exception to vaccination.[26]

So far, COVID-19 vaccine mandates in Ghana have taken two forms: direct targeted mandatory vaccination and indirect mass mandatory vaccination. On November 28, 2021, Patrick Kuma-Aboagye, director of the Ghana Health Service, announced at a press conference that the government of Ghana had declared December 2021 a month of COVID-19 vaccination.[27] Consequently, a directive by the Ghana Health Service mandated all travelers coming into and leaving the country to be fully vaccinated.[28] Additionally, persons visiting certain public spaces, including beaches, restaurants, nightclubs, sports stadiums, the Ministry of Health, and other government agencies, had to show proof of vaccination.[29] Kuma-Aboagye also intimated the government's intention to roll out mandatory vaccination for certain groups of people in January 2022. The targeted groups include all public employees, health care workers, security personnel, staff and students of tertiary and secondary institutions, commercial drivers and their conductors, and other government workers.[30] Some people resisted and criticized the vaccine mandate directives on several grounds, including that it violated Ghanaians' rights and was illegal.[31] In response to some of the pushback, the presidential advisor on health, Anthony Nsiah-Asare, in a letter to a group of concerned Ghanaian medical doctors, stated that "there is no current mandate requiring mandatory vaccine rollouts within the country."[32] Nsiah-Asare's position, however, was contrary to the actions of the Ghana Health Service and the realities on the ground.

On March 27, 2022, the president, in his COVID-19 update address to the nation, eased some of the restrictions imposed earlier, effective the following day.[33] Wearing face masks was no longer compulsory, and all in-person and outdoor activities could resume at total capacity *provided that all persons present were fully vaccinated*.[34] In other words, if one went to any public event, then they had to be fully vaccinated. Herein lies an indirect mass vaccination mandate. There has not been much opposition to this mandate compared to the November one, perhaps due to the indirect nature of the former and the lack of vigorous enforcement, at least at the time of writing this paper. The president's address also mentioned that proof of full vaccination at the Kotoka International Airport was still a requirement and that all other entry points into Ghana by land and sea were open only to fully vaccinated travelers.[35]

Overall, the government's concerted effort to vaccinate some 20 million Ghanaians (about 65% of the population) by June 2022 using all means possible included vaccine mandates, whether direct or indirect, or mass or targeted.[36] Presently, the existing mandatory vaccination schemes described above seem lax, except for those applicable to international travel. Though legally authorized in Ghana to protect public health, vaccine mandates have constitutional and human rights implications, as explored below.

Balancing personal rights and public health: Ghana's constitutional and human rights framework

Chapter five of Ghana's 1992 Constitution is devoted to fundamental human rights and freedoms. The chapter begins with an express guarantee that every person in Ghana is entitled to all the fundamental human rights and freedoms provided "subject to respect for the rights and freedoms of others and for the public interest."[37] This caveat presupposes that none of the rights in chapter five are absolute and that they could be limited if the public interest is at risk. The Supreme Court, in *Akuffo JSC*, recognized the public interest limitation on all human rights in Ghana: "with *every* guaranteed human right under the Constitution, comes an *overriding responsibility, which is toward the public interest* or greater good."[38] The public interest includes any "right or advantage which enures or is intended to enure to the benefit generally" of all Ghanaians.[39] Therefore, public health is an advantage for all Ghanaians and so forms part of the public interest. With this public (health) interest proviso in mind, I outline the personal rights at stake given the government's mandatory vaccination agenda. I look at Ghanaian courts' jurisprudence on balancing personal rights with the public interest, including public health.

Personal rights at stake: Personal autonomy and freedom of movement

Regarding medical treatment and procedures, a patient has the right to personal autonomy over their body.[40] This common law right of patient autonomy was popularized in the American case *Schloendorff v. Society of New York Hospital*, in which Justice Cardozo stated that "every human being of adult years and sound mind has the right to determine what shall be done with his own body; and a surgeon who performs surgery without his patient's consent commits an assault for which he is liable in damages."[41] Vaccination is a form of medical intervention.[42] A forced medical intervention violates the subject's personal autonomy, which in Ghana manifests as personal liberty and right to dignity under articles 14 and 15 of the Constitution, respectively. Therefore, ordinarily, vaccinating a person against his or her will is a violation of that person's constitutional right to liberty and dignity.

The Constitution places several limitations on the enjoyment of one's personal liberty, including where a person is "suffering from an infectious or contagious disease … for the purpose of his care or treatment or the protection of the community."[43] Vaccination is intended to provide immunity against disease, and so it usually precedes contracting an infection or disease. Accordingly, at first glance, mandatory vaccination falls outside the health-related exception to personal liberty under article 14 of the Constitution. However, mandatory vaccination could be justified with the standing and cross-cutting qualification that all fundamental human rights are subject to the public interest (including public health). The justification is that given the global nature of the COVID-19 pandemic, Ghana has a positive obligation to protect public health. Mandatory mass vaccination is a valuable tool for carrying out this obligation.

The constitutional right to dignity for all persons in Ghana "shall be inviolable."[44] Personal autonomy is grounded in the right to dignity because autonomy is how a person attains self-worth. Ghana's Patient's Charter, which is vested with legislative status in the PHA, also protects the dignity of patients, noting that "in all health care activities the patient's dignity and interest must be paramount."[45] Despite the inviolability of personal dignity, Kirchhoffer argues that where a person's perception of dignity as autonomy is objectively misguided, their autonomy (self-worth) depends on beliefs or actions that violate the dignity of others—then justice permits limiting their freedom to protect them and others.[46] Applying Kirchhoffer's argument to the Ghanaian constitutional context, the inviolability of the right to dignity on which personal autonomy is grounded does not mean that exercising one's autonomy is limitless. Where exerting one's autonomy, such as refusing to vaccinate against a global pandemic, violates the dignity and rights of others, the *overriding responsibility toward public interest* in article 12(2) of the Constitution allows their dignity (autonomy) to be limited for the protection of their health and that of others. Similarly, the Patient's Charter, while holding patient's dignity paramount, also emphasizes patients "respecting the rights of other patients."[47]

Freedom of thought, conscience, and belief is a logical corollary of personal autonomy. A person's freedom to determine what should be done with his or her own body medically can be based on the person's thoughts, conscience, and beliefs. Therefore, in Ghana, refusing to vaccinate based on one's beliefs is founded on a constitutional right. However, this right, like the right to liberty and dignity, maybe limited for public health's sake.

The Constitution is silent on the manner through which limitations on personal liberty, the right to dignity, and their corollaries as manifestations of personal autonomy for public health reasons should take. Thus, a mere administrative or executive directive communicating mandatory vaccination may suffice. However, the edict need not to be communicated through law.

Freedom of movement, protected under article 21(1)(g) of the Constitution, is another human right affected by the government's mandatory vaccination plan. Freedom of movement in Ghana means the right to move in Ghana freely, the right to leave and enter the country, and immunity from expulsion from Ghana.[48] Requiring proof of vaccination before a person is allowed entry into Ghana or any

public place implies the mandatory vaccination of all travelers and users of such spaces, which, without doubt, constitutes a violation of the freedom of movement of such persons. However, in addition to the general limitation provided under article 12(2) of the Constitution, there are limitations to the right to freedom of movement, including where it is "reasonably required in the interest of … public safety, [and] public health."[49] Hence, mandatory vaccination as a public health protection device may be justifiable concerning the exception.

Unlike the mode of imposing restrictions on personal autonomy, which is flexible, limiting freedom of movement through mandatory vaccination, for example, must be done under the authority of law.[50] Some commentators have criticized the constitutionality of the administrative nature of the mandatory vaccination directives. It follows that an administrative mandatory vaccination directive not backed by law to the extent that it prohibits the freedom of movement is unconstitutional. Therefore, the administrative or executive directive used by the Ghana Health Service will not do.[51] Pursuant to article 21(4)(c) of the Constitution, the government, during the early days of the pandemic, passed the Imposition of Restrictions Act (IRA). The IRA authorizes the president to impose restrictions (including freedom of movement) in emergency circumstances to ensure "public safety, public health, and protection."[52] The restrictions are to be imposed by executive instruments.[53] Consequently, it may be argued that regarding restriction of movement, mandatory vaccination could be validated if it is channeled through the IRA. The constitutionality of the IRA itself is debatable, which I have commented on elsewhere.[54] However, that discussion is beyond this paper's scope. An alternative could be for the minister of health to impose mandatory vaccination by executive instrument under the PHA. I proceed on the assumption that mandatory vaccination directives, to the extent that they limit the freedom of movement, will and can easily be regularized to comply with the constitutional requirement once the government's attention is drawn to it.

From the foregoing, there is a competing interest between the personal rights of Ghanaians and the public health protection of the Ghanaian community. There is also a constitutional justification for mandatory vaccination as a tool for public health protection. Having established that mandatory vaccination fits in with the constitutional and human rights framework in Ghana, I ask whether, despite the green light, mandatory vaccination is necessary and appropriate given the pandemic situation in the country. To answer this question, I use the proportionality test to measure whether mandatory vaccination is a measure proportional to protecting public health and warrants restricting personal rights. To this end, I examine the Supreme Court's jurisprudence on the proportionality test.

The proportionality test

In *Civil and Local Government Staff Association of Ghana (CLOSAG) v. Attorney General and Others*, the Supreme Court outlined the proportionality test thus:

> *Prima facie, constitutional rights and freedoms are to be enjoyed fully subject to the limits that the Constitution places thereon in terms of Article 12 (2) … Hence in determining the validity of any statutory or other limitation placed on a constitutional right, the questions that need to be determined are:*
> - *Is the limitation necessary? In other words, is the limitation necessary for the enhancement of democracy and freedoms of all, is it for the public good?*
> - *Is the limitation proportional? Is the limitation over-broad such as to effectively nullify a particular right or freedom guaranteed by the Constitution?*[55]

From the above, the proportionality test in Ghana constitutes two elements: (1) necessity and (2) proportionality of the limitation for the public good. The element of necessity essentially proffers that a limitation placed on a constitutional and human right should be the least restrictive among the equally effective alternatives for achieving the public good. The public good here is protecting public health.[56] In other words, where there is a milder limitation available than the one imposed, then the imposed limitation is not necessary. Mandatory

vaccination, therefore, will pass the necessity test only if it is the least restrictive of human rights among the equally effective limitations for protecting public health in Ghana.

On the other hand, the element of proportionality requires a balance between the harm the limitation does to the enjoyment of the rights at stake (i.e., the costs) and the gains the limitation aims to achieve (i.e., the benefits). To put it differently, if the costs of a limitation outweigh its benefit, then that limitation is not proportional. Mandatory vaccination, therefore, will pass the proportionality test only if there is parity between its costs and benefits.

Lord Diplock's nut-cracking analogy in explaining the proportionality principle in *R v. Goldstein* is instructive: "in plain English, 'you must not use a steam hammer to crack a nut, if a nutcracker would do.'"[57] The next section assesses whether mandatory vaccination in Ghana is a steam hammer or a nutcracker.

There is no doubt that a fully vaccinated country will safeguard public health, which is the public good that vaccine mandates seek to achieve. So far, I have established that Ghana's legal framework allows for a mandatory vaccine regime. This is supported by section 22 of the PHA referred to above. I have also highlighted the determinants for the proportionality test. Given this background, the next logical question is whether mandatory vaccination is a proportionate means of protecting public health in Ghana.

Vaccine mandates in Ghana: A steam hammer or a nutcracker?

This section explores the appropriateness of vaccine mandates in addressing the spread of COVID-19 in Ghana by answering the question, Is mandatory vaccination against COVID-19 a proportionate means for protecting public health in Ghana? Using Lord Diplock's analogy, a different way to ask the question is, Taking public health protection by reducing the spread of COVID-19 as the nut to crack, is mandatory vaccination in Ghana a steam hammer or a nutcracker?

First, I explore the necessity of mandatory vaccination in addressing COVID-19. Is mandatory vaccination the least restrictive of constitutional and human rights, among other equally effective measures for protecting public health in Ghana? As of March 2022, two years since Ghana recorded its first index case, the country had experienced four pandemic waves, leading to 160,932 confirmed cases (about 5.3% of the population) and 1,445 deaths.[58] As of March 25, 2022, there were only 72 active cases, with none critical.[59] The transmission rate in Ghana over the past two years is not as escalating as to trigger vaccine mandates yet.

The surveys discussed earlier showed that the lack of vaccine-related information and education and concerns over the vaccine's safety, effectiveness, and side effects are the primary drivers of vaccine hesitancy.[60] Therefore, an intensive COVID-19 vaccination education campaign championed by the government is a less restrictive measure that should be explored. Indeed, in his recent address on the COVID-19 update, the president hinted at such a campaign and called on religious and traditional leaders, agencies, institutions, and the media to aid the vaccine education campaign.[61]

While massive vaccination education is ongoing, restricted access to some public spaces may also be instituted. Proof of vaccination or a negative test result (maximum 72 hours) may be required before allowing entry into such spaces. No one has an inherent right or is required to visit a public place such as a restaurant. It is a choice. Thus, a "no jab/negative test result, no entry" requirement for select public spaces becomes a conditional prerequisite rather than a mandatory obligation punishable by law. These conditional prerequisites are justifiable as necessary to visit a place and a mechanism for protecting other users' health while there. Over time, such conditional requirements will persuade users of these spaces to vaccinate for two reasons: their need to frequently visit such places, and the costs and inconvenience of taking the tests repeatedly. Rapid diagnostic self-tests are not common in Ghana, so most would have to go for the antigen test at designated health centers.

The surveys also revealed that long queues and

long travel times to the vaccination centers were reasons for vaccine reluctance.[62] To address this, the government should set up more vaccination centers than already exist so that the centers will not be overcrowded, and people will not have to travel far to get jabbed.

When these and other milder alternatives that could be explored have been sufficiently exhausted, and the expected outcome is not achieved, vaccine mandates should follow. Even with vaccine mandates, mandatory targeted vaccination of select groups such as health care workers and government employees, among others, should be explored before mandatory mass vaccination is rolled out. Mass vaccine mandates should also allow for credible exemptions such as persons with natural immunity after recovering from COVID-19, children, and persons who cannot be vaccinated due to underlying conditions such as allergies.

So, in answering whether mandatory vaccination is the least restrictive of constitutional and human rights, among other equally effective measures for protecting public health in Ghana, the answer is no. Vaccine education campaigns, limited access to public facilities, and the erection of more vaccination centers are all viable milder alternatives that could persuade Ghanaians to vaccinate, thereby attaining the intended public good without limiting their personal autonomy and freedom of movement as much as vaccine mandates do. Therefore, mandatory vaccination is not yet necessary to protect Ghanaians' right to be free from the public health risk that COVID-19 poses.

Second, I examine the proportionality of vaccine mandates in Ghana. Is there a balance between the costs of mandatory vaccination and its benefits? It has already been established that protecting the public from the health risks of COVID-19 is the primary benefit that vaccine mandates intend to achieve. COVID-19 vaccines, while helpful in reducing public health risks, also carry their perils. COVID-19 vaccination does not benefit all persons equally. For example, it protects some vulnerable persons (e.g., the aged) from harm. It does not do so for vulnerable people such as children and those with medical conditions who cannot be vaccinated yet.[63] However, it may be riposted that it is in the interest of protecting the latter vulnerable group, who cannot get vaccinated even if they wanted to, that individuals who can get vaccinated should do so. Therefore, the vulnerable population depends on the rest of the population to vaccinate not only for self-protection of the vaccinated but also to protect the "unable to vaccinate" others from getting infected. There have also been reports of vaccinated persons who have developed breakthrough infections, meaning that some people are at a higher risk of vaccination than contracting COVID-19.[64] Furthermore, it has been reported that vaccinated persons can be carriers and transmitters of the virus.[65] These hazards aside, the question is, At what cost do vaccine mandates attain the ideal projected public health benefits?

Vaccine mandates limit Ghanaians' right to liberty, dignity, freedom of thought, belief and conscience, and freedom of movement. However, are these limitations justified and proportionate to the public health protection objective? The limitations flowing from vaccine mandates would be justified and proportionate if all other less restrictive options were exhausted without yielding the anticipated objective. However, the reality is that vaccine education has not been widespread. Beyond the issue of not exhausting milder alternatives is the limited availability of vaccines for the entire population. Refusal to vaccinate is not likely to lead to wastage and financial loss to the state. About 29 million vaccine doses have been acquired since February 2021, when the first batch of vaccines arrived in Ghana.[66] Of that number, some 13.5 million doses had been administered as of April 8, 2022, out of which only 5.4 million people were fully vaccinated.[67] Even when all 29 million doses are administered, the total number of fully vaccinated Ghanaians will still not be in proportion to the 60%–70% of the population needed to achieve herd immunity. It can thus be concluded that the costs of vaccine mandates (restricting personal autonomy and freedom of movement)—amid inadequate education campaigns and vaccine availability challenges—plainly outweigh the benefit (protection of public health) they aim to achieve.

Overall, vaccine mandates are currently not proportional given the Ghanaian context—the relatively low spread of the virus, non-exhaustion of milder alternatives, an inadequate education campaign, and an insufficient supply of vaccines. Thus, in Ghana, COVID-19 vaccine mandates amount to using Lord Diplock's metaphorical steam hammer, instead of a nutcracker, to crack a nut.

Conclusions and recommendations

This paper was driven by one central question—is mandatory vaccination necessary and appropriate given the COVID-19 pandemic situation in Ghana? The response is that it is not. Although the legal framework in Ghana allows for mandatory vaccination, it should be the last resort in addressing the pandemic, in line with the World Health Organization's recommendations.[68] Currently in Ghana, apart from entry points by air, sea, and land, where the vaccine mandates are strictly applied, the mandatory vaccination regime is generally lenient. This paper's purpose is to further water down any intended attempts to tighten things up by proposing alternatives that, if implemented effectively, would likely lead to the anticipated outcome and render mandatory vaccination unnecessary.

Before mandatory vaccination in Ghana is necessary and proportionate, the following must apply: The first is for government to collaborate with essential public and private agencies to embark on an intensive COVID-19 vaccination education and information campaign. The campaign should encourage Ghanaians to vaccinate by addressing the prevailing misconceptions and misinformation and highlighting the importance of getting protected through vaccination. Apart from the common misconceptions of the vaccine being a biological weapon, the result of 5G technology, a population control mechanism, and similar conspiracy theories, others are peculiar to Ghana. Brackstone et al., for instance, mention political allegiance.[69] Some anti-vaxxers who are members of the opposition political party believe that getting vaccinated will make them vote for the ruling party in the next election.[70] A random conversation I overheard between two people also revealed another misinformed narrative that could be common among the illiterate population—that they are "not sick and so do not need to take any injection" (vaccine). These and other misconceptions peculiar to Ghana must be addressed during the education campaigns in addition to the popular ones. From a personal perspective, there has not been as much education on the vaccines as about the disease itself and the safety protocols. The government's vaccination agenda would benefit greatly if more education were done.

The second is for government to set up more vaccination centers. More centers will reduce the tendency for long queues and ensure that the centers are close to most Ghanaians. It will be easier to persuade someone to walk to a center to get vaccinated than to spend money to board a taxi or bus.

The third is for the government to explore incentivizing Ghanaians to persuade them to vaccinate. In India, subsidizing property taxes and offering cheaper airfares, discounted restaurant meals, groceries, and reduced bank interest rates have successfully coaxed people to get the vaccine.[71] Similar incentives through government and private sector efforts are likely to be successful in Ghana. The government could discount, for example, the recently introduced and controversial electronic levy charges for all vaccinated persons for a period. Discounted payment for the National Health Insurance Scheme could also be introduced for vaccinated individuals. As part of its corporate social responsibility, corporate Ghana could offer some discounted or free services or products for the vaccinated.

Fourth, the government should provide conditional access to specific public spaces and facilities for only vaccinated people. As mentioned earlier, requiring proof of vaccination or negative test results before allowing people to visit or use these spaces will potentially wear out the unvaccinated to eventually get the vaccine. The idea that getting vaccinated will expedite one's return to normalcy in using public facilities is enough to sway many to the vaccinated side.

Fifth, failing these less restrictive alternatives, the government can quickly turn up the heat

by introducing mandatory targeted vaccination for certain critical groups, including health care workers, government employees, and teachers. At this stage, refusal to vaccinate should not attract punishment but relatively mild administrative sanctions, such as prohibited access to certain public services, places, or privileges.

Finally, when all of the above options have still not resulted in the expected goal, and the government has been able to secure enough vaccines for the entire adult population, direct mass mandatory vaccination initiatives can be introduced with the pain of punishment. The applicable law could be the PHA or the IRA. By the time government imposes these stringent measures, there will be no doubt that mandatory vaccination is a proportionate measure that does not amount to a violation of constitutional and human rights, having exhausted all possible milder alternatives without success.

It is crucial in implementing the above options that credible exemptions be made for those with natural immunity after recovering from COVID-19, those who cannot get vaccinated for medical reasons, children, and other persons or circumstances as may be necessary. In sum, the Ghanaian government should adopt a tiered system that is a continuum from carrot to stick approaches. Given the flattening curve of COVID-19 cases in the country, the government should spend considerable time dangling the carrot until such a time when using the stick becomes absolutely necessary and proportionate to achieve the expected herd immunity to stem the spread of the virus.

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