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COMMENT

Achieving an Equitable Covid-19 Testing Model

Lessons and challenges from Africa and Asia

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More than a year into the Coronavirus pandemic, pain and suffering continue in all corners of the world. By early April 2021, Coronavirus-related deaths worldwide had crossed 3 million. It is hard to quantify sorrow. Beyond numbers, what continue to leap out are the human and social impacts of the pandemic, exacerbating the medical consequences of Covid-19. Despite developments and advances in medical research in the past months, access to testing worldwide has been riddled with problems.

To date, testing is still either restricted to symptomatic patients or available at exorbitant prices that many people cannot afford. As authorities in many countries focus on development of vaccines and countries pivot to rolling out mass vaccination campaigns — seen by many as almost

a magic solution — the benefits that could flow from widespread testing remain elusive in many countries because testing services remain riddled with problems. The four key barriers revolve around access, human rights, exclusion, and the overarching issue of equity which encompasses elements of the other three. The yawning gaps on all these fronts in many countries should sound an alarm because they stand in the way of an inclusive strategy to contain the pandemic.

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Regions are experiencing continuous waves; new variants of the virus are emerging as this report is being written. While the development of reliable vaccines has been in some ways a game changer, no one quite knows how long it will take for most people in the world to access the benefits of vaccines, and in the foreseeable future, the goal of vaccine equity must be accompanied by equity in testing.

Covid-19 is likely to remain a public health, political and socioeconomic challenge for many years to come, particularly for vulnerable populations who may not have easy access to testing, treatment, and vaccination. Socially excluded groups, including migrants, employees trapped in precarious labour systems, prisoners and the disabled are likely to be disproportionately impacted by the inequitable access to whatever pandemic control measures are available, compared with the more privileged members of society.

The successful control of the Covid-19 pandemic hinges on the capacity to test and isolate infected patients. Without the possibility to test and isolate, authorities are literally throwing spears in the dark. Scientists have long argued that for the moment, the best way to control the pandemic and its impact which the world has borne is to be able to **ensure access to diagnostics to track the virus, medicines to treat the infected, and a vaccine to prevent its spread**. As medicines continue in the pipeline of research and development, and vaccines from Pfizer, Moderna, Sinopharm and Johnson and Johnson among others continue to be rolled out, the role of diagnostics remains the most advanced and accessible pillar of this triangle of testing, treating and vaccination. For testing to have its maximum possible value, it then should be as widely accessible as possible—for the pandemic has been a stark reminder that healthcare that is a preserve for some in society but leaves out most of the population leaves all of society at risk.

Whilst the rollout of testing can and has offered a means of controlling the pandemic, examples abound of how testing capacity, especially where it is more limited, has accentuated existing social inequalities and inequities. Socially excluded groups have been the worst-affected, often being denied access to testing, or being exposed to a disproportionate risk of diagnostics whose results are not considered the most reliable. It is also these groups who have borne the brunt of blunt measures from authorities, like complete lockdowns and/or border closures that affect cross border traders and often come with no access to testing services.

In an unequal world, inequity intensely impacts our fight against the new Coronavirus. Therefore, centring equity in the pandemic response must be a top priority. Braveman and Gruskin (2003) described equity in health as “an ethical value, grounded in the ethical principle of distributive justice and consonant with human rights principles”. The authors assert that while difficult, it is possible to assess equity based on measurable and meaningful criteria. The criteria would be

based on the operational definition of *equity being the absence of disparities in health (and its key social determinants) that are systematically associated with social advantage or disadvantage.*

Equitable testing will lead to hard-to-reach and socially marginalised populations having access to testing which can lead to the use of fair and effective measures to reduce spread of infection, improve containment of the pandemic and better health outcomes for Covid-19 positive persons.

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This paper seeks to understand the barriers to equitable testing and potential ways to address them; it looks at components of an equitable testing model, drawn from a combination of existing literature and case studies of different testing models — mainly in Asia and Africa — and puts forward recommendations that will help ensure access to testing for all, especially the most vulnerable.

Why testing remains key to a successful pandemic response

While the medical impact of the pandemic in terms of morbidity and mortality has been felt across the globe, the human suffering and the pandemic's social and economic impacts that have hammered even those who have remained safe from infection are no less consequential. Addressing this in an equitable way will be one of the key challenges for policymakers in the foreseeable future.

Testing strategies are key to ameliorating economic and social hardship, allocating resources, and allowing more targeted interventions, as Kavanagh and others (2020) pointed out in a Lancet article.

An effective, equitable and accessible testing model can help parts of the economy open up. International travel offers a telling illustration. Most countries and airlines require passengers to produce evidence of a negative test before being allowed to board flights. This has not come without challenges as many countries still require potential travellers to foot the cost of the test themselves. In Africa, this could range from USD 70 in Southern Africa to as much as USD\$100 in Nigeria for all potential travellers.

Experience with diseases like Ebola, HIV and TB have underscored the role of access to testing in the control of rapid-spreading epidemics. Testing allows people who have contracted the disease to be isolated and reduces the spread of the disease to general population. The same is true for the novel Coronavirus. Testing allows for those who have contracted the virus to be isolated, supported, and treated in a way that not only protects their communities, but importantly, allows healthcare workers to be protected from the virus as they can approach positive and isolated patients with the necessary personal protective equipment.

As access to vaccines becomes one of the most topical issues in the control of the pandemic, it is important that the role of testing is once again examined, and its benefits made available to people most in need of them.

As testing continues to be the most developed pillar of the “testing, treatment and vaccination” axis to control the pandemic, it is important that authorities and policymakers confront the reality that if access to testing is not equitable and falls short of the principle of equity, then it will continue to be a huge challenge to address disparities in Covid-19 morbidity and mortality.

In the absence of a proven treatment regimen for Covid-19, and as the complex development and rollout of the vaccines are underway, testing remains a key pillar of the control of the pandemic. This can only work if access to testing is equitable and accessible by all those who require testing. Otherwise, its capacity, impact and benefits will remain under-utilised.

Some countries have recorded excess mortality during the pandemic, and due to limited testing, it has not been possible to determine the cause of this excess mortality. The rather extreme case of Tanzania, which has not been testing its population and refusing to share medical data since April 2020, is a case in point. It took the high-profile death of the President John Magufuli with Covid-19 symptoms before the World Health Organisation (WHO) publicly urged Tanzania to do more to address the pandemic. “There are no publicly available records for recent deaths in Tanzania, and no information has been released on the impact of coronavirus since May last year, when 500 cases and 20 deaths were reported up to that point,” the BBC said in a report titled Covid: Does Tanzania have a hidden epidemic?

Testing has an important role in identifying new mutations.

In Zambia, a study in Lusaka (Mwananyanda et. al., 2021) found that community deaths from Covid-19 were common but not appropriately captured because of limited testing capacity. The relatively low numbers of Covid-19 cases in Lusaka thus represent the capacity of testing rather than the prevalence of the virus. The impact of this for public health authorities, charged with the responsibility to make decisions to control the spread of the pandemic is huge as their decisions are based on a misrepresentation of the situation.

As new variants of the virus are being discovered, it is important that the role of testing is seen in identifying new mutations and being sure that the various vaccines have efficacy against these mutations. South Africa learnt the hard way after procuring 1 million vaccines in early 2021, only for scientists in that country to condemn the vaccine against the dominant strain which was first discovered in South Africa. If testing is not widely available, even vaccines will be of limited use if they are not tested against these new mutations.

Zimbabwe | Returning migrants

As the economy in South Africa shut down in March 2020, migrants surviving on precarious work in construction sector, agriculture and the hospitality industry were some of the worst affected. In South Africa, numerous studies point to foreigners often facing xenophobic treatment at the hands of healthcare workers. The first case of Covid-19 was reported in South Africa on 5 March 2020. When the pandemic started in South Africa, the public health system was already overwhelmed from years of neglect, mismanagement, and lack of investment. Many migrants understood that access to healthcare would be difficult at best or denied at worst if they showed Covid-19 symptoms. Access to testing was bound to be a challenge. Returning home was thus based on two considerations: access to livelihoods and income, but also a realisation that if they got infected with Covid-19, access to care would be a challenge.

Zimbabwean authorities decided that all returning migrants, while allowed to repatriate, would have to undergo a Covid-19 test at a holding facility. Well-intentioned as this was, the lack of support for people who were facing stigma in the event of a positive result, and the failure to get their buy-in led to a lot of them escaping from the holding centre. The fact that results were sometimes delayed for more than 3 days provided a disincentive for people to stay inside the facility and wait for results, especially as living and sanitary conditions did not meet minimum standards. Some who had escaped, and tested positive, were tracked by authorities to their villages.

The decision to offer testing to all returning migrants played a key role in detecting positive cases and allowing the authorities to contain the spread of the virus. Even though the holding centre offered less than ideal standards, it still was the best foot forward, especially at a time when South Africa had the highest burden of Covid-19 cases in the continent. In addition, the capacity to offer “controlled” repatriations also allowed the government to continue to welcome its returning citizens as many had lost access to income. This, for example, was a different policy choice compared to Uganda, who at the time, refused even their own citizens to come back home. The impact on migrants who had lost jobs and trying to escape the pandemic in hard-hit countries to Uganda would have been severe on their mental health. The example of Zimbabwe shows that it is possible for States to contain the spread of the pandemic, and still rise to the occasion in as far as their duties under international law to protect their citizens are concerned, including protecting citizens who happen to be out of the country when disaster strikes.

Testing: Challenges and Opportunities

For testing to be effective in combatting the pandemic, it must be universally accessible, equitable, respectful of the human rights of the most marginalised populations and not exclude anyone. If these core issues had been addressed, the pandemic may have been controlled more quickly. More than one year into the pandemic, equity, access, human rights, and exclusion remain the key challenges in Coronavirus testing. Without focusing on these four key issues, the end goal of preventing the spread of the virus will be much harder.

Uganda | Vulnerable groups

In May 2020, fighting erupted in eastern DRC displacing over **45,000 people** from their homes. Traditionally, communities affected or caught in fighting in the perennial conflicts across DRC always found refuge across the border in Uganda. In fact, Uganda has made a reputation for itself as far as accepting refugees after they **accepted over 1 million refugees** when the civil war broke out in neighbouring South Sudan in 2016. In June 2020, when the DRC refugees got to the border where they normally sought asylum, they unfortunately found the border shut by Uganda as part of measures to curb the spread of Covid-19. Uganda thus found itself on the horns of a dilemma – with the responsibility, on one hand, to protect her own citizens from the pandemic, and on the other, the international law obligations as contained in the 1951 Refugee Convention to offer protection to people fleeing conflict.

Uganda, like many, if not all other African countries, hardly had capacity to test even people considered to be symptomatic or even contacts of confirmed cases. The model adopted at the time in Uganda seemed to have been to have people coming into the country to pay for services. For example, from March 2020, quarantine became mandatory for inbound travellers travelling from countries considered to be high risk, but with the caveat that people were forced to pay as much as the equivalent of \$800 USD for the **mandatory quarantine**. It would have been inconceivable for people displaced from the fighting in DRC to pay such amounts of money. The government thus had to seek other policy measures if it had to abide by its obligations to provide protection.

With support of the United Nations High Commission for Refugees (UNHCR), Uganda finally decided, at the end of June 2020, to **facilitate a humanitarian operation**¹ that would allow asylum seekers into the country with basic screening for Covid-19 symptoms. The limited testing capacity, and the availability of services based on ability and capacity to pay for the cost aggravated what was already a protection situation and forced people who were seeking asylum to be in limbo for over 5 weeks. The group included unaccompanied minors and pregnant women. When testing services are not made available to vulnerable people fleeing conflict, it only leads to a failure to offer protection services as States would struggle to rise to their obligations without exposing their own citizens to risk. The impact of this is compounded by the rising anti migrant and refugee rhetoric. If populations seeking asylum expose citizens of a country to Covid, it would only provide more excuses and justifications for shutting borders on people fleeing conflict and or seeking economic opportunities away from their own countries. The case of Uganda serves as another example of the indivisibility of human rights and protection mechanisms. The manner in which States institute measures to control Covid-19 have **a direct impact** on whether or not people enjoy their other rights as set out in both national and international law.

EQUITY

Equity must be the overarching framework of an effective testing strategy. The authors of this paper argue that Braveman and Gruskin offer one of the most comprehensive ethical frameworks to understand and explain health equity. An equitable testing model would need to address several interconnected and multi-layered issues to minimise disparities in health that are systematically associated with social disadvantage. Health inequities put the more disadvantaged and/or marginalised social groups at a greater disadvantage, thus **perpetuating inequality** in the form of increased mortality and morbidity that is seen in African American and Latinx communities in the US. A testing model based on equity can offer an opportunity to address the disproportionate burden of both mortality and morbidity suffered in these communities by offering a real chance to identify and isolate cases, thereby controlling the spread of the virus.

As a point of departure, Gruskin and Braveman remind us that it is necessary to acknowledge that equity in healthcare is an ethical concept that is based on social justice. It is a principle that requires an examination of unjust health disparities and their elimination in the provision of

Senegal | US\$ 1 Covid Test

In April 2020, in the early stages of the pandemic, Senegal made world headlines following news that a prototype **Covid test costing as little as US\$ 1** was in the final trial stage. In the face of global demand and inadequate supplies, marked by richer countries hoarding diagnostics for their own countries, the case of Senegal was lauded as a possible solution to increase access to testing not only in Senegal but her neighbouring countries as well.

The Senegal case proved to have little traction outside of the news headlines as the entity working on the development of the test struggled to get technical and regulatory support to complete the development work. Hopes that had been raised by the headlines have been dashed.

healthcare. The principle of equity in health is inextricably intertwined with the human rights corpus. The Constitution of the WHO states, “The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition provides for the right to the highest attainable standard of health.” Since human rights are both indivisible and inter-related, the right contained in the Constitution of the WHO cannot be separated from the right against discrimination as well as the right to equality.

Any attempt to equalise opportunities to be healthy would inevitably require addressing social and economic determinants of health.

This demands an acknowledgment that the highest attainable standard of health is normally reflected by the standard enjoyed by the most socially advantaged group in a society. This is no surprise, considering the reality that it is the politically, socially, and economically powerful who often determine what is equitable in as far as allocation of resources for health is concerned. Any attempt to equalise opportunities to be healthy would inevitably require addressing social and economic determinants of health.

ACCESS

Access is a key challenge, especially in many countries of the Global South with fragile health systems. Access to testing is more than simply ensuring that everyone, including vulnerable populations, have such access. It must include safety, ability, and affordability of testing. Africa, for example, leads much of the world in community healthcare networks that can be tapped for the necessary ground-level work of communication, testing, and contact tracing. However, as The Lancet observed back in May 2020, “Restricted supplies of test reagents and consumables are making it difficult to mobilise capacity. The manufacturers of PCR platforms (such as Roche, Abbott, Hologic, Thermo Fisher, and Cepheid) cannot scale up production quickly enough.”

In addition, matters relating to enforcement of intellectual property rights and international trade rules have a role to play as far as access is concerned. An equitable model of testing would also consider social intersectionality within populations.

Many countries, at the onset of the pandemic, when faced with inadequate capacity to conduct PCR tests gave the green light to use rapid tests whose sensitivity was under serious doubt by scientists and medical staff. This had the adverse effect of exposing some people, especially from lower socioeconomic backgrounds who could hardly afford the PCR tests, to relying on rapid tests and have the risk of false negative results.

In the face of a pandemic, exposing some sections of the society to tests whose medical value is under question only helps hamper the little confidence that people have in medical science. With lingering doubts regarding the origins of Covid-19, especially in the initial months of the pandemic, false positives not only affected the people who have undertaken the tests, they also led to a crisis of confidence in the entire response.

The response to the 2018 Ebola outbreak in the Democratic Republic of Congo (DRC) offered some stark and tough lessons on the **dangers posed by lack of trust and confidence** in control of disease outbreaks. Again, in July 2020, the medical humanitarian organisation Médecins Sans Frontières (MSF) decried the high cost of diagnostics that pharmaceutical companies were charging especially the world's poorer nations. According to **MSF research**, Cepheid, the pharmaceutical company was charging almost \$20 for a single cartridge, and yet the same cartridges could be sold for a profit at \$5 per test. This means that Cepheid was charging four times more than it should for Covid-19 diagnostic cartridges. For a disease like Covid-19, with limited diagnostic tools, the access to diagnostic test is an important factor in the efforts to contain the pandemic. As MSF put it, "So many lives could be saved if corporations like Cepheid made their test available urgently and affordably in all countries." The role played by access to diagnostics can thus not be overestimated in the control of the pandemic.

Access to testing can neither be equitable nor just if pharmaceutical companies take the opportunity to profiteer and over-price diagnostic tools when all efforts should be aimed at containing the pandemic. The situation is even more dire in many African and Asian countries who fall under the Low-Medium Income Countries (LMIC) group. Many of these countries have inadequate health services that are often underfunded. The burden of high diagnostics cost exacerbates an economic downturn that has already seen countries like South Africa's sovereign credit rating downgraded. In November 2020, **Zambia became the first African State to default on foreign debt obligations** since the onset of the pandemic. Schemes and solutions proposed by the International Monetary Fund (IMF) and World Bank appear, on the face of it, as requiring even more austerity measures from these governments. It is telling that South Africa has had to **reduce its budget for health** amidst a pandemic in the Eastern Cape, which remains one of the provinces worst affected by the pandemic partly because of structural problems that have seen it continue to be one of the poorest provinces in that country.

Scholars have argued that the decision by South Africa to rely on institutions such as the IMF to mitigate the impact of Covid-19 shows a failure to read the global political economy that remains asymmetrical, based on race, place, and capital interests (Phiri, 2021) .It is indeed questionable if the IMF can provide support that is not designed at propping austerity measures that aim to reduce public provisioning of healthcare in favour of market forces. It is therefore not surprising that the Covid-19 response continues to mimic and perpetuate the socioeconomic realities of post-apartheid South Africa. Without a **conscious and decisive break from the inequities** that are a result of apartheid, the default response to Covid-19 and access to testing services will certainly lead to health inequities as we have seen in the South African government response.

In the final analysis, the practice of prioritising profits before patients by many pharmaceutical companies cannot be extricated from the debt crisis and the economic impact of the pandemic on countries. If diagnostics continue to be overpriced, it not only means that it will be difficult for patients to access care, but also that the economic impact, outside the direct impact of the pandemic, will continue to be a huge burden for many LMIC countries which have experienced stagnant economies and rising inequalities leading to more civil unrest.

In this context, securing distributive justice is pivotal to the discourse on access to testing. Distributive justice is concerned with the fair and socially just allocation of resources among diverse members of a community and it should encompass the idea of a testing model that would lead to inclusion of hard-to-reach populations like the homeless, persons deprived of liberty and populations on the move. Distributive justice ensures that the drivers of inequity are addressed.

Securing distributive justice is pivotal to the discourse on access to testing.

The pandemic has shown that if access to healthcare is not widened to include populations that often suffer from social exclusion, then the entire community will be at risk. In this sense, distributive justice means that resources ought to be distributed recognising the fact that groups that have suffered exclusion and from lack of resources and services must be put at the centre of a pandemic response.

The enforcement of intellectual property rights and international trade agreements have been under the spotlight as vaccines get developed and production is still unable to meet global demand. As richer nations have been engaged in what has been termed vaccine nationalism, it has become clear how access to medicines and diagnostics have been reduced to means of profiteering through the monopolies that global pharmaceutical companies claim for production. Instead of access to diagnostics and medicines being determined by need and epidemiological data, these have been reduced to who has the deeper pockets in the race by governments to secure vaccines (Harman, 2021).

Testing capacity has also been affected by protective monopolies and even over a year after the onset of the novel coronavirus, many States still have limited access to testing because of the high prices set by manufacturers who out-price poorer nations from accessing diagnostics.

Malaysia | Movement Control Orders

In the name of curbing Covid-19 transmission, 'enhanced movement control orders', or EMCOs, were put in place in Kuala Lumpur and Selangor, Malaysia which entailed barbed wire fences, restriction of exit and entry, and mandatory testing. Due to the nature of the disease, these EMCOs were often in low-cost housing areas, overcrowded and with a high number of migrant workers. Despite **early promises to refrain from arrest of undocumented persons presenting for testing**, immigration raids were conducted throughout the residences within the EMCOS that resulted in a **significant number being placed under arrest and subsequently detention in immigration detention centres**. This conflation of EMCOS, mandatory testing and immigration raids in Kuala Lumpur resulted in strong fears to present for testing and many attempted escapes from areas under EMCO or being threatened with EMCOs.

HUMAN RIGHTS

The global response to acquired immunodeficiency syndrome (AIDS) in the late 20th century made a compelling case for twinning human rights and public health (Meier et. al., 2018), given their inextricable linkages. In the 1980s, the human rights corpus was used to frame a response to prevention, care and support of people living with HIV/AIDS. While some governments had indeed tried to respond to the pandemic through the conventional lens, with policies that included compulsory testing, *name-based HIV infection reporting* and even travel restrictions and quarantines, human rights activists exposed the inadequacies of this approach which was both intrusive and ineffective, grossly limiting individual rights.

Mann *et al* (1994) correctly assert, "Health and human rights are complementary approaches to the central problem of advancing human well-being." If this perspective is followed and implemented, it has the effect of seeking to ground health within a broad context of political, socioeconomic determinants, and questions the conceptualisation of health as a unique sphere of scientific investigation, medical expertise, and specialist application.

In a rights-based approach, the more vulnerable members of society would, by definition, require more support due to their vulnerability.

It is true as well that especially in the new world of the challenges posed by Covid-19, difficult questions must be asked on how to balance individual human rights and community rights. While some may generalize about the relationships between individual and group rights (as between global North, post-industrial societies, described as placing greater emphasis on individual liberties and the right of individuals to choose, and societies in the global South, viewed as less industrialized and often described as putting more emphasis on the rights of the community and the interests of the group.). In epidemics, this difference is said to play out as authorities deprioritising individual rights especially with regards to patient autonomy as the ambition is to protect the group.

The relationship between individual and groups rights (especially decisions of the national government in the name of the collective) have been debated in the human rights and health literature for many years. As discussed below, the **Siracusa Principles** were developed and have been applied in pandemic health contexts to help make the decisions of states transparent both as to rationale and as to effect. However in the current state of flux of the epidemic, in a country,

such as China, where authorities hardly considered individual right to autonomy and used stringent measures criticised as authoritarian, there is little purchase with these principles and it is unclear if the specific elements of China's approach, which, for now, seems to have strictly contained the initial outbreak are useful to and indeed replicable by other nations, without all the institutions and practices that undergird Chinese authority in place to have different experiences with the pandemic.

A possible way out of this dilemma is for States to rely on the Siracusa Principles on the limitation and derogation provisions in the international covenant on civil and political rights which provide for some, closely scrutinized restrictions of human rights in the context of public health emergencies. The Siracusa Principles state that all limitations of human rights must meet the standard of legality and be based on evidence that shows that such limitations are necessary. In addition, restrictions of rights must be proportional and be applied in a gradual manner.

The rights-based approach also influences and determines the relationship between the government and its citizens as far as access to health is concerned and helps to put individual rights and collective interests in a transparent and assessable relationship. This ties in with the equity approach adopted by Braveman and Gruskin because, as they explain, citizens have a claim to the highest attainable standards of health. As compared to passive recipients of government benevolence, individuals are recognised as rights-holders, with human rights imposing corresponding obligations on governmental duty-bearers (Gostin & Mann, 1994). In the case of Covid-19, a human rights-based approach to testing and medical care would ensure that governments set policy based on the imperative to provide access to healthcare for their populations. When the State recognises its obligations to provide access to healthcare, within its resources and means, it would prioritise an equitable access to all citizens to healthcare regardless of their social and or economic standing.

In line with a rights-based approach, the more vulnerable members of society would, by definition, require more support due to their vulnerability. Policies would respond to those without the financial means to acquire tests and ensure that they are not discriminated against and/or targeted for compulsory testing without providing a means to deal with the stigma and social exclusion that comes with a positive test result in most communities. It would be remiss of policy leaders to fail to learn from and build on the lessons from the 1980s on AIDS response which showed the deficiencies of the old methods of epidemic control that include compulsory testing, named reporting and quarantines.

Zimbabwe | Truckers through Beitbridge Border Post

Beitbridge is a border town along the Zimbabwe-South Africa border. It is the busiest inland border post in Sub Saharan Africa, owing to trade and import routes from Asia via Durban to Zimbabwe, Zambia and even DRC. The route also serves as an important corridor for food, medicine and many other essential goods moving to the hinterlands. Beitbridge has a transit population of over 16,000 people per day. When the pandemic spread to Southern Africa and lockdowns started, Beitbridge border post was bound to be one of the **most affected areas**.

Beitbridge border post is infamous for slow customs clearance procedures that have turned it into a nightmare for truckers. When the pandemic control measures started, truckers, by virtue of the role they play in transporting goods, were given an exemption.

What was peculiar about truckers since the beginning of the closure of the borders was that they consistently enjoyed an exception even in terms of testing. In practice, this meant that someone who voluntarily repatriated and travelled by bus to Zimbabwe from Johannesburg was compelled to test at the border, and yet truck drivers only had to undergo a screening process that included temperature checks and questions about Covid symptoms and with this, they were able to pass through.

No scientific reasoning informs this exemption enjoyed by truckers that allowed them to **escape the mandatory testing** that migrants were forced to go through. It could be that the authorities on either side of the border made decisions based purely on inadequate capacity to test all truck drivers and practical considerations that if the truckers had to wait for even two days to get results before proceeding, then this border post would become clogged. What makes it even more curious is that while no policy exists on paper to offer such an exemption, in practice the policy implementers from both countries seem to have jointly taken what appears to be a practical and pragmatic decision. In October 2020, when South Africa announced **a policy change** that opened up the border posts to inward travellers, provided they had a Covid free certificate that was less than 72 hours old, the policy implementers attempted to start enforcing this rule, but after a few days of a **clogged border post**, with haulage trucks stretching for many kilometres, they went back to the default of turning a blind eye to the testing requirement. Till today, truckers continue to move and cross multiple borders without a requirement for mandatory testing.

The lessons in this case are myriad. While many questions can and should be asked about the lack of informed policy decisions and implementation, it is also a reminder that policymakers ought to make policies that are tailored to address challenges that implementers have to face. If these policies are not suited to the circumstances on the ground, there is a high risk that implementers will simply turn a blind eye and thus make containing the pandemic much more difficult.

EXCLUSION

Many marginalised populations are at risk of social exclusion, stigmatisation and ostracization because of their social status. Ensuring protections for people presenting for testing and ensuring safe consequences of results is key to ensuring compliance to testing requests.

Groups noted to have tested positive for Covid-19 are often at risk of discrimination. When clusters arose in migrant and refugee populations, as was the case early in the pandemic in Malaysia, xenophobic reactions including the **banning of foreigners from markets** and religious spaces were carried out with the support of the majority of the public.

“Malaysia’s efforts to contain the spread of Covid-19, while generally successful, had a disproportionate impact on marginalised communities,” **Human Rights Watch** pointed out in 2020. “While authorities initially stated that they would not take action against undocumented migrants who came forward for testing, on April 29, the defence minister announced that all “illegal

immigrants” found in areas under enhanced movement control orders would be sent to detention centres when those orders ended. On May 1, hours after the easing of some restrictions, authorities raided one such area and rounded up hundreds of migrants. The authorities ultimately conducted multiple raids, ensnaring thousands of migrants and detaining them in overcrowded and unsanitary immigration detention centres to await deportation. Several UN experts expressed concern that the crackdown was “severely undermining efforts to fight the pandemic” and immigration detention centres subsequently reported an increase in confirmed cases of Covid-19,” it said.

Due to fear of arrest and detention there were instances of people trying to escape testing. The net effect was that such people, fearful of the impact on their stay in Malaysia, would not give consent to be tested as control of the pandemic was instrumentalised by the State to go after undocumented migrants.

The testing strategy must ensure that marginalised populations are not placed at further risk due to testing efforts. Lessons for this already exist from the HIV pandemic, amongst other diseases.

Another significant impact on groups that were at higher risk of Covid-19 can be seen in Singapore, where after Covid-19 clusters broke out in migrant dormitories, **these dormitories were sealed off** as mass testing was carried out. Severe movement restriction was reported, with workers sometimes not even allowed to leave their rooms, and basic meals being delivered to them. But at least Singapore offered interpreters. This made it more feasible to get informed consent and by extension, gain the confidence of people it required to test.

In Thailand, **an interprovincial travel ban** was placed on migrant workers due to a cluster of Covid-19 cases that emerged in shrimp factories that employed a large number of migrant workers. In addition, migrant workers were blamed for bringing in the virus in a **televised address by the Thai Prime Minister**. These various forms of discrimination of vulnerable groups leads to testing hesitancy.

Conflation of security and public health

The attempt to impose measures to control the pandemic was often conflated with other political and security considerations in many countries. In Uganda and in Kenya for example, Covid-19 measures were used as an **excuse to prohibit and prevent political activity** by mainly opposition parties and yet the governing parties often got away with defying such measures. In Zimbabwe, in July 2020, protests against the deteriorating social and economic conditions were met with **military and police repression**. The net effect of the conflation between health and political considerations resulted in even less confidence and buy-in on the measures meant to curb the spread of Covid-19. Military-enforced Covid-19 lockdown is problematic in countries where there is a historical trust deficit between security forces and citizens, which is the case in countries where the **heavy handedness of enforcement measures** has led to security forces shooting and killing civilians. The 2019 Ebola outbreak in DRC offered **stark lessons on the impact of securitisation** of the epidemic response and the vicious cycle that led to mistrust in health authorities.

Socially excluded groups also require specific and targeted solutions that speak to their circumstances and their needs. Countries like South Korea **ensured that testing services were available to undocumented migrants** by delinking testing from administrative right to residence in the country.

Conclusion

Testing for the Coronavirus remains one of the key intervention areas if the pandemic is to be eventually brought under control. Like any epidemic, without the ability to test, treat and isolate, it is virtually impossible to bring Covid-19 under control within a reasonable timeframe to limit the medical and socioeconomic damage. However, to exploit the full potential of the benefits of testing, it must be done in an equitable way that ensures that all people in need of testing are able to access testing.

It is also important to highlight and acknowledge that the framework on health equity includes the possibility to measure health equity. Similarly, in this case, testing that is equitable can be measured. With the main challenges outlined above, the authors would like to assert that an equitable testing model would ensure: protected access to testing; a strategy that ensures distributive justice; rationale for security measures put in place for public health purposes; and finally a rights-based approach in all aspects of testing.

Policy Recommendations

1 Diagnostic tools to ensure accessible and free testing on demand is *sine qua non* to controlling a pandemic. Together with isolating and treating patients as well as vaccination, it is a key pillar of epidemic control and requires and demands attention commensurate with its importance. The development and production of diagnostic tools must be considered a public good and their access should not be restricted by intellectual property and international trade rules that have the impact of obstructing access to States who seek to increase access to public health. It is only when the full potential of global production is unleashed that enough testing kits can be produced at a cost that is affordable to the global population. The same has been achieved for rapid tests for malaria and HIV for example, and these have played a key role in the advances in controlling both diseases.

2 Offer accessible and free testing with protections against discrimination, targeting socially excluded groups: South Korea, among many other Asian countries, has shown that it is possible to increase access to testing by offering services that are delinked from administrative and residence status. By deliberately not asking the legal status of people coming for testing, they allow irregular migrants to access testing. The approach of South Korea is as opposed to the one adopted by Malaysia where, in Sabah region, migrants were fleeing from healthcare workers and from testing centres as they feared being detained and/or deported.

3 In future epidemics, it is crucial to ensure that as diagnostics are being developed, the burden of inaccurate and unreliable results is not borne especially by socially excluded groups whose relationship with State authorities is often mired in mistrust and or controversy. Whilst it is understandable that diagnostics take time to develop for novel diseases, it is equally important to ensure that vulnerable groups are not only provided tests whose sensitivity and specificity are questionable. This was true of the initial versions of the rapid diagnostic test for Covid 19 that produced false negatives and was not availed of by the poor and marginalised of society because test results were considered untrustworthy.

4 In highly infectious epidemics like Covid-19, specific attention must be paid to mobile populations. At least 15 people died from dehydration and heat in December 2020 when Beitbridge border authorities between Zimbabwe and South Africa were caught off guard

and failed to anticipate an increase in traffic volumes and insisted on conducting tests at the port of entry which became clogged and forced people to spend over 3 days in long queues without access to shelter or to potable water and sanitation services. A public-health based model would have ensured that as States tried to control the pandemic, they do not expose people to conditions that inevitably lead to the loss of the same lives that they are trying to protect.

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