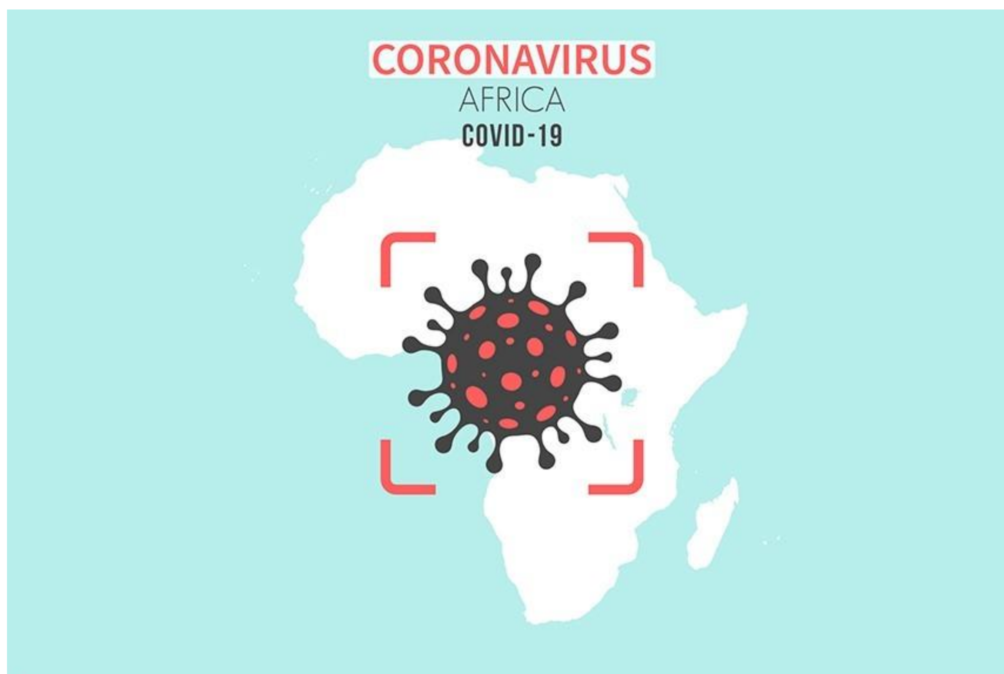
Epidemic Control Equals Health Security: What Developing Countries Can (Still) Learn from the Global North



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Limited Learning Opportunities?

Unfortunately, there are only a limited number of ways that data or examples from developed countries are likely to help the developing world, and sub-Saharan Africa in particular, in their preparations for the current global pandemic. There are too many variables in play — not least geographical differences; possibilities of diminution of virulence over time and space;

preparation times; available resources; culture; religion; and a host of other possible confounders. Response systems which have shown encouraging quantitative results in one nation may thus be ineffective, or even counterproductive, on other levels and in other places.

Timing, chance and circumstance (such as in the case of Italy) have played key roles in country-by-country impact, meaning that ostensibly positive data cannot always be meaningfully linked to policy, either. Even within Europe, unhelpful comparisons on the interaction between policy and results abound: Sweden, for example, has greater health system capacity than Ireland – and, ultimately, the only point of any social or economic intervention has been to avoid health system overrun. Nonetheless, there are benefits that developing countries may accrue from attention to health security experiences and response strategies in Southeast Asia, Europe, and elsewhere.

Lead Time

Much of the developing world is uniquely placed in terms of the current global pandemic. For geographical as much as socioeconomic reasons, such countries may have greater time to prepare, and thus — at least theoretically — more opportunities for fine-tuning and tailoring their interventions to local contexts. In many ways, ironically, the developing world is also better equipped for the current situation than Europe or the United States: many populations in sub-Saharan Africa are highly experienced in living with the threats of infectious diseases and associated life expectancy issues, unlike those of more affluent countries.

As such, day-to-day living habits may not be subject to such dramatic change – or, if they are, populations may be more adaptable, based on their past experiences. Although as yet uncertain, the current pandemic may also be linked to affluent pursuits such as international travel and even vaping – neither of which are common in many developing countries. If this is indeed a disease of affluence rather than poverty, then more draconian policies are not going to be cost-effective.

Nonetheless, certain basic policies, without high levels of investment and with a focus on health security, should be advanced. These include health education that both informs and avoids hype and paranoia and associated social unrest and economic disruption; it also relates to the adaptability of epidemic control efforts to different cultural contexts, including religion and political climate.

A further consideration is avoiding information overload – how can developing countries, any more than anywhere else, navigate the increasingly complex

global information flows on this subject; when implemented, how can interventions be done in a way that does not disrupt essential services? The flux of fake news in this regard is also a key consideration: developing county governments should not be encouraged to leverage public health efforts for other agendas, as has happened already in many parts of the developed world.

Disease control is thus no excuse for authoritarianism or the limitation of human rights; witness the controversies around internment camps in the 2014 Sierra Leone Ebola outbreak. In the case of South Africa, for example, the conflation of public health and political agendas is open to particular question: the ban on alcohol seems extreme, though logical: the provision of financial assistance only to Black Economic Empowerment companies has less inherent sense to it, and is suggestive of the political advancement of other agendas.

The Primacy of Health Security

A further consideration is the necessity of protecting developing country populations not from the virus, but from international arrivals. Worldwide, the freeze in international travel has been essential, even though (in hindsight) implemented far too late: in the same way, there may be no need to change the day-to-day way of life in developing country townships, as long as residents are protected from interactions with international or regional arrivals.

One further possible consolation is that, if the epidemic were to have been as severe in developing countries as feared, it would likely have happened by now, raising many health security questions regarding ethnicity, culture, and other risk factors that may differ between regions. In this regard, prior epidemics also show us, if nothing else, that adaptable interventions that are suitable to local socio-economic conditions are essential. This includes a focus on utilization of local resources in response design, but also careful consideration of branding in health messaging; making feasible requests that do not deter service utilization, and close attention to a range of other possible sensitivities.

Similarly, ethical considerations related to provision of services for other diseases should be carefully considered, as should the importance of cross-sectoral responses that go beyond ministries of health and utilize resources from a wider range of government departments and public service providers. Should the current pandemic shift to low-level ‘acceptable risk' endemic status in developing countries, responses also need to be designed with such long-term surveillance and knowledge transfer (as well as emergency response) considerations in mind.

What Has Worked?

By far the most effective international public health measure, from a health security perspective, has been the closure of borders and limitations of population movements, both internally and between countries. This has worked due to cooperation between transport providers, legislators, and public health experts, but also because of the decisive intervention of politicians in this regard.

Social distancing policies have also been successful, largely because of their humanistic nature – in many cases, the previous *status quo* of large crowds concentrated in small spaces has been revealed as optional; from over-full commuter trains to other examples of modern overcrowding, few have been revealed to be essential to human progress and survival. The ascendancy of remote working has also been critically important in this regard, though the latter is an option which may not be open to most developing country populations.

Thirdly, the compliance of vulnerable and elderly populations with national directives has been of critical importance. Without this, those at highest risk would likely have rapidly filled many hospital systems to capacity — as was the case in Italy. Optimal measures in developing countries should focus on these lessons learned — with significant adaptation to local conditions. Social distancing efforts are likely to be almost impossible to enforce, for example, while (on the other hand) there is traditionally less mobility by older and vulnerable populations in the developing world, compared to developed countries.

As such, curtailments of travel between countries, districts and regions (in other words, the constriction of relatively loose *cordon saintaires* or *reverse cordon sanitaires*) is most likely to be highly effective. In many developing counties, partially-enforced borders between counties, districts and regions are already in place: continuing suspension of long-distance travel is both practical, effective and enforceable in this context.

Similarly, the curtailment of the movement of international populations arriving in to, and living in, developing countries may be of crucial importance. The development of tagging systems for new arrivals to wait out quarantine periods could also be an enforceable initiative in this regard; the further development of effective and efficient "bush telegraph" surveillance information sharing is also likely to be of key importance in curtailing local outbreaks.

A Nascent Health Security Checklist for the Developing World

Health security is too often considered a purely developed country concern: protecting borders and affluent populations from the arrival of, say, Ebola from

West Africa during outbreak periods. This is, perhaps, a misplaced assumption: health security, today, is of greater importance than ever for developing countries, who are now equipped with justifiable rationales for lamenting ingress. In conflict settings such as Sudan, entry by non-nationals in to Khartoum is relatively east compared to the stipulations required for further progress: such policies, once regarded as inherently malign, may have a key emergency response rationale – provided they are not abused. The following may thus help to serve as a draft framework for donor health security assistance, in this regard.

Border Control Support: This might include the provision of fact sheets or other health checks at air and sea ports, as well as donor support of efforts to maintain border security within partner countries.

Utilization of Local Networks: This might occur via many existing foreign assistance initiatives and partners; these networks can play a pivotal role in health education messaging, as well as grassroots surveillance and knowledge transfer. Though donor collaboration with local religious leaders, for example, health education messaging can be effectively integrated in to religious ceremony and teaching.

Health Education: The provision of straightforward, locally-adapted health education messaging is likely to be critical. This should not rely on internet promotion, but rather on text messaging, poster campaigns, advertising, and community awareness efforts; radio and popular drama messaging has also met with prior success in this regard. Wherever possible, such initiatives should be integrated with existing health education programs, rather than supplanting them.

Positive Messaging: Combining health protection measures with education on the benefits of limited mobility in the climate change and environmental context might also be of assistance to developing countries – this has been an important incentive for the developed world to comply with emergency regulations.

Xenophobia Avoidance: It may also be important, in developing country health security messaging, to avoid conflation of lockdown efforts with tribalism, regionalism, or other forms of domestic or international xenophobia. Conversely, such policies can be leveraged to promote the opposite: the necessary integration of migrant communities, during periods of limited mobility.

Convertibility: It might also be emphasized in donor-partner dialogues that, strategically, all emergency services should also be convertible to day-to-day use

under non-emergency conditions; generalizable into other health condition treatment, but also ready for reactivation. This may help to ensure that white elephant investments that remain unused after the emergency period are avoided.

Home and Community Prevention and Care: In many ways, developed county responses have been based on health system capacity: in that sense, their polices have been as much to protect health systems, as populations. In the developing world, due to a very limited health infrastructure that is often already overwhelmed, the immediate focus should thus be on community-led care and home care strategies.

Prevention and Treatment Campaigns: Information promotion might include the basic measures required, in these regards. In particular, this would include water and sanitation health (WASH) guidelines; risk factor recommendations such as on smoking; and locally-relevant advice such as avoiding the use of indoor fires and other pulmonary and respiratory health initiatives.

Industrial Change Preparations: Industries likely to be highly affected in many developing countries should also be advised on possible consequences at early stages: recommendations on diversifying away from sporting events, tourism, alcohol sales, restaurants, and other services in to more resilient industries may help many to prepare for, or avoid, financial hardship.

Local Ownership: In many cases, government policies, as noted above, may be conflated with other agendas. Thus, in emergency situations, there is a strong case to be made for civil obedience, but also for social authority: trusting local populations to make informed decisions based on local circumstances, rather than exclusive reliance on (often unenforceable) overly-paternalistic or controlling efforts that might be construed as didactic or authoritarian.

Reconsidering Protected Health Information: Developing countries may also wish to consider the risks and shortcomings of protected health information in the emergency context. Greater clarity and granularity and resolution in the local control of outbreaks will help with *cordon sanitaires*, and will likely reduce, rather than increase, damaging stigma and paranoia considerations.

Avoiding Overreliance on Testing: Currently, large-scale testing strategies are unfeasible for the developing world. Associated costs and logistics are likely to continue to be prohibitive for some time — though point-of-entry strategies could be considered. In the HIV/AIDS realm, testing has been of limited practical use in controlling epidemics unless partnered with community referral systems;

likewise, contact tracing strategies, particularly when epidemics take place on large scales, are unlikely to be effective in the developing world.

A Focus on Geography: As with many other infectious disease outbreaks, the nature of the current epidemic is inherently urban, with transmission, incidence and prevalence rates all significantly higher in high-density population areas. As such, developing countries may wish to focus efforts, *cordon sanitaires*, and other border control measures on protecting rural areas (and associated essential food production efforts).

A Focus on Demographics: The current pandemic has been revealed as one which affects elderly and other vulnerable populations with much greater severity that other demographics. Developing countries may wish to make this an inherent part of their response strategies — emphasizing the importance of protecting those population groups, without limiting their basic personal freedoms. Where possible, such efforts should be undertaken from a humanitarian, rather than a health system, perspective.

Urban Aged Populations: Based on a combination of the above two considerations, there may be a particular need for developing countries to focus on protecting vulnerable or elderly populations in urban areas. Though less common in low-resource settings, hospices, care homes, and retirement centers nonetheless remain high risk areas: in this regard, developing countries may still be able to learn from some of the possible oversights of developing countries in this regard.

Looking Beyond Treatment or Prevention Paradigms: Too often, epidemic responses are simplistically divided between treatment or prevention. In the current case, treatment options are limited — particularly for severe cases, in the developing world. Even with less severe cases, limited curative or treatment options exist beyond basic recovery measures; likewise, in terms of prevention, no vaccine exists — or is likely to for some time. Similarly, social distancing measures (as noted above) — while effective — are highly unlikely to be effective in many parts of the world due to educational, literacy, and population density considerations.

Prevention and Containment: A key consideration for developing countries is, thus, the difference between prevention and containment. Containment strategies, in geographical terms, are essentially large-scale infection prevention efforts – even at the micro level, they may theoretically reduce risk within restricted areas. With such a community-level focus, geo-containment strategies therefore represent one of the few feasible alternatives to micro-level prevention efforts in developing countries.

Feasible Local Responses: The use of local resources (including recognizing local expertise) is key to epidemic containment in any setting, but particularly in low-resource areas. Donor funding is also likely to b severely curtailed as affluent countries count the cost of their epidemics; thus, as above, the advancement of practical and culturally-acceptable measures such as sneezing in to elbow crooks, recommendations on time limits spent in close proximity to others, or the use of home-made face masks may be far more appropriate and effective for the developing world than more socially or resource-demanding recommendations.

Conclusion: A Need for Bipartisan Health Security Approaches

It is, in all cases, critically important that developing countries avoid over-reacting, or conflating policies with other agendas: to do so is be to undermine public health efforts and erode public trust in authority. Rather, it is vital to steer a line between hype, paranoia, and despair (as characterized by many liberal-democratic responses) versus political or social recklessness (associated with more conservative, libertarian, or authoritarian regimes). Moderate bipartisanism may be the best overarching advice for any developing country – as are considerations of quality of life; extreme health security measures should not, above all, be allowed to excessively or unnecessarily affect other areas of public health, human rights, or economic productivity beyond emergency circumstances.

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