INTRODUCTION: DIFFERENT PUBLIC HEALTH APPROACHES IN THE RESPONSE TO COVID-19

Over the past 6 months, we have witnessed diversity in the spread and severity of the COVID-19 and in the nature and timing of responses to it in different countries and contexts.1 Acute emergencies often mobilise a short spurt of attention and resources. COVID-19 is, however, a protracted pandemic that spreads through and exacerbates socioeconomic inequalities and stresses health and democratic systems in a way that calls for sustained responses from local to global levels.

The ways that different governments have responded to COVID-19 highlight the long-standing tensions between different frameworks and approaches to public health. Broadly characterised, one approach views people as rights holders who should actively be engaged in proactive interventions that address the social determinants of health, in a way that is respectful of rights and of collective human security. In contrast, the second approach sees people as the objects of reactive technical, biomedical ‘command-and-control’ interventions, with biosecurity measures to protect populations against harmful pathogens rapidly implemented alongside authoritarian and militarised approaches when epidemics are seen to threaten socioeconomic and political interests and security. Both approaches integrate knowledge and technology, but do so in different ways and to different ends. While these two frameworks have coexisted, contested and been applied, sometimes together, for over two centuries, COVID-19 has exacerbated the tension between them. This has longer term implications for how public health is understood and health challenges effectively addressed.

In this piece, we highlight deficiencies and harms of a dominant biosecurity, authoritarian framing of public health. We argue for a comprehensive, participatory, inclusive public health approach that integrates rights, social dimensions and diverse sources of knowledge, evidence and innovation and that maintains equity as a critical goal.

The precautionary principle and limitations of individual rights in the interests of public health and safety are well-established norms that go beyond public health and are included in constitutions and laws. When the risk is high and effective population measures exist, such as vaccination or water
treatment, decisions may be made centrally to ensure the most widespread protection of the population, especially when no equally effective alternatives can achieve the same population benefits. Central-level measures may be implemented to invest in technologies, guide and support local capacities or to ensure universal coverage. An acute emergency or rapidly unfolding pandemic can provoke demand for centrally driven prompt and wide-reaching action. However, the COVID-19 pandemic presents a complex case, where the intended and unintended impacts of measures implemented at different levels are still emerging.

This protracted pandemic requires cooperation and effective communication between national and local levels, including communities, implemented in a way that safeguards respect for people’s dignity, supports local-level capacities and engages with people’s languages, cultures, knowledge and realities. Decisions made in public health require evidence from a range of disciplines and sciences, as well as from experiences and perspectives from all levels, with communication on how trade-offs were decided. Effective responses and simplified guidance cannot be imported from one setting to another without adapting them to diverse contexts in ways that are participatory, transparent and generate trust in authorities from implementers and communities. While the public health response is not independent of the broader sociopolitical context, its framing and implementation can, however, redress inequities and reinforce social empowerment, cohesion, solidarity and human security. As consistently articulated by the United Nations (UN) and its agencies, collectively, we are only as free of risk as the most vulnerable in society. If public health practice reflects and does not confront underlying power imbalances and inequalities that generate risk and vulnerability, we will all be insecure. As a global pandemic, COVID-19 thus also requires cooperation, communication and solidarity across countries and international organisations as envisaged in the 2005 International Health Regulations (IHR), the Sustainable Development Goals and the 1978 and 2018 Declarations on Primary Health Care.

How will we judge the public health response to COVID-19? Was it rights driven, participatory, equitable, compassionate and based on solidarity? Were diverse forms of evidence and experience encouraged, made available and transparently considered? Was the political, values-based ethical nature of decisions and interventions recognised? Were open dialogue, self-reflection, information sharing and active citizenship encouraged?

EVIDENCE OF HARM IN AN AUTHORITARIAN BIOSECURITY RESPONSE

As the pandemic unfolds, hindsight will provide more answers to these questions. Yet in a rapidly accelerating COVID-19 pandemic, there is already mounting evidence of decisions having been made in a centralised, hectic, top-down manner, constraining local choice even while demanding local flexibility and assuming responsiveness of communities and health systems. While regional reports suggest that stringent responses early in the pandemic were associated with a lower ensuing COVID-19 prevalence in some countries, longer term lockdowns, bans and quarantines raise challenges for already vulnerable groups in a range of countries and settings, with an accumulating health debt from loss of income, food insecurity, solitude and dying alone, mental health problems and discontinuity of preventive, promotional and curative care for other health conditions. This is particularly so when measures are prolonged, neglect lived realities, disproportionately target disadvantaged communities and do not provide adequate social protection.

Of significant, immediate concern is the militarisation and use of ‘war narratives’ that compare COVID-19 with a battle and relate the pandemic to being at war, referring to ‘the enemy’, with calls to ‘save the economy’ and essential workers labelled ‘frontline warriors’. Military capabilities can contribute in mobilising logistics and infrastructure. However, in many countries globally, state security forces and not public health workers or local law enforcement personnel have been deployed to communities to contain the spread of COVID-19. From diverse regions globally, there have been multiple reports of abuse by police or military power for curfew or lockdown violations, in terms of mass forced evictions, arrests, killing and deaths in custody. For instance, South Africa recorded 230,000 arrests and 11 deaths by security forces between March and April during its lockdown, and in recent months UN agencies report hundreds of thousands of people arrested for COVID-19 in a range of countries globally.

Such militarised responses to COVID-19 are underpinned by a biosecurity-focused and authoritarian approach, with drastic and speedy impositions often carried out by security apparatuses that do not inform the public in a timely and transparent manner. This is comparable to the actions that governments take during wartime, ignoring the crucial role that an informed public can play in securing effective responses to public health threats. COVID-19 was declared a national emergency in many countries, following WHO’s naming COVID-19 as a Public Health Emergency of International Concern, as defined in the 2005 IHR. However, this has then been used to apply wide-ranging emergency laws and centralised executive power over local devolved action in different high, middle and low-income settings. Such actions have often been made without clear, relevant public information on the scientific justification or exit strategy, often without engaging local residents or their representatives and without consideration of the feasibility of measures, such as in demanding physical distancing in overcrowded...
slums.\textsuperscript{2} Private companies and governments have introduced the monitoring of people’s movements through satellite and mobile telephone platforms in many parts of the world, often using emergency powers to limit privacy and other rights.\textsuperscript{10} Such practices raise concern over how temporary, necessary and proportionate this surveillance is and of how the pandemic is being used to advance radical changes in how we interact with digital health technologies without considering the future implications of vast amounts of health data being stored by entities that are often not under public control.\textsuperscript{16}

Military responses in global health signal the deeper legacy of both colonialism and coercive medicine, added to in recent decades by a perception in security agencies that epidemics pose a threat to economic interests and political stability.\textsuperscript{11} HIV and Ebola were both identified by the UN as threats to peace and security, and militaries deployed in communities in the 2014 Ebola outbreak in West Africa.\textsuperscript{11} A militarised biosecurity response is thus not unique to COVID-19. However, side-lining the expertise of health ministries, public health personnel and communities by locating the management of COVID-19 in centralised security sectors with weak public health experience fundamentally changes the nature of the response.\textsuperscript{3} It can divert resources to defence sectors or reactive, coercive and fear-promoting responses and away from the complex adaptive systems needed for effective and sustained public health interventions like test, trace and protect.\textsuperscript{8} The military response to the 2014–2016 Ebola epidemic in West Africa is estimated to have cost three times the amount that would have been needed to set up a well-functioning health system infrastructure.\textsuperscript{11}

Militarised, overcentralised, biosecurity approaches undermine social cohesion and solidarity, encourage scapegoating and expand a pejorative discourse on migrants, refugees, minorities and others as ‘threats’ in the spread of the pandemic, enabling discrimination.\textsuperscript{12} This approach can reinforce a recent far-right, authoritarian and nationalist tendency in politics, associated with polarisation, populism and racism, playing out in different ways in different regions.\textsuperscript{15} Organising public health responses in this way can foment discrimination, even unwittingly, and undermine long-term social trust in the field.

In demanding obedience to command, rather than solidarity and informed action, and using criminal law to enforce behaviour change, these measures disempower and alienate communities from their central role in COVID-19 containment, paradoxically weakening adherence to behavioural measures.\textsuperscript{1} Technical biosecurity responses and incorrect learning from failures—including not learning from previous epidemics—risk undermining the values, rights and knowledge that effective public health depends on. Not listening to communities and front-line workers can lead to unworkable harsher restrictions on certain groups that contribute to widening inequality. For example, stay-home curfews deprive informal workers of livelihoods, while only higher income groups can take advantage of remote working or home schooling. Imposed measures and unclear, delayed and conflicting information build fear, anger, mistrust and mental health concerns and can drive social behaviours underground, making effective responses more difficult.\textsuperscript{13} Ignoring realities on the ground generates a growing health debt, as people with other conditions do not seek or get adequate care. Such responses potentially harm the relationship between communities and the state that contribute to public health, and exacerbate determinants of poor health, such as increased gender violence during lockdowns, prolonged exclusion of schooling, affecting mostly lower income children, and food and income insecurity.\textsuperscript{14} These consequences can undermine support for effective measures and can be highly counterproductive to containing a pandemic or its longer term health impacts.

Oversimplifying, scapegoating and restructuring public health responses have also shifted funds and institutional authority to large private, corporate actors and public health to national biosecurity institutions.\textsuperscript{15} 16 Reorganising national public health bodies and selectively dismissing public health evidence without consulting experts and personnel can be wasteful, demoralising and counterproductive. While privatisation and commodification of public health systems are not new, the pandemic has provided an opportunity to intensify it in some settings, in contrast to approaches that coordinate private sector action under public sector leadership. Justifying these changes as necessary during an emergency places a smokescreen over the manner in which longer term austerity and privatisation may themselves undermine the opportunity for an effective public health response.\textsuperscript{16} Ignoring reminders from the WHO that the pandemic risk remains until all are protected, a sense of threat and self-protection has led to the inequitable stockpiling of essential health technologies and vaccine nationalism in high-income countries, undermining the international risk prevention and solidarity intended in the 2005 IHR.\textsuperscript{4} 17 Emergency laws enabling a biosecurity approach have altered checks and balances on executives of government, enabling millions of dollars raised internationally or mobilised from public revenue to be applied without adequate parliamentary or public scrutiny, even while large sections of the population struggle to survive and face mental health crises with the loss of income under lockdowns.\textsuperscript{9}

**ADVANCING A COMPREHENSIVE PUBLIC HEALTH RESPONSE**

Biosecurity is not equal to public health. ‘Public health is the science and art of preventing disease, prolonging life and promoting health through the organized efforts of society’\textsuperscript{18} (p 2). It is implemented through participation, the organised efforts and informed choices of society, state and non-state organisations. It acts on the social determinants of health and health equity from proximal to structural levels, through the organisation of policies, services and social measures to ensure and improve the conditions...
and capacities for health and well-being for all. We cannot allow the response to COVID-19 to reduce public health in institutional practice and in the public mind to biosecurity alone, treating people as objects not agents, undermining knowledge, equity, rights and decades of prior work. We need to protect and advance a public health that is rooted in public interest and in the public; that is proactive, effective, participatory, principled, just, based on scientific and social evidence; that acts upstream on the social determinants of health and that builds cooperation between health, other sectors and communities and between countries globally.

Doing this starts with a different relationship with the local level and communities, as a matter of rights and justice and for public health effectiveness. Local organisation, health literacy, local leadership, ideas, innovations and action are all necessary to prevent infection and provide social protection and care. They are core for an effective public health response.1217 There are many examples of affirmative community involvement in the response to COVID-19 from all regions globally.12 16-21 They show alternatives in social action and collaborations between communities and states that contrast with inappropriate and overcentralised biosecurity responses. As we enter the sixth month of the declaration of this pandemic, we would do better to dialogue, work with and respect the public and diverse professionals, sharing knowledge and information to understand and act on risk.

We need to protect an ethical, scientific and rights-based approach to public health, such as the UN Siracusa principles shown in box 1.22

Like all rights-based approaches, such principles come alive when known, implemented and upheld by all in a manner that builds collective power, rather than dominating power. The principles are subject to interpretation.

Decisions made in the ‘public good’ need, therefore, to be probed for the technical knowledge, evidence, consultation and sociopolitical interests and power that inform them and the measures included for accountability and learning from action. The evidence applied needs to include the full range of systematically organised knowledge, including from implementers and from communities’ lived experiences. In contrast to a self-protective response, health as a human right needs to be understood and implemented as a collective responsibility, within countries and globally.1

‘Health actors, community leaders and communities must co-construct options for COVID-19 response that are acceptable, and feasible, and foster commitment of affected communities22 (p 2). In part, doing this implies proactive design of measures through decentralised governance and deeper, more nuanced engagement with local health and social service professionals, local authorities, civil society organisations and different social groups, including marginalised communities and youth. This type of engagement helps to interpret and locally adapt guidance to effectively implement key responses, including testing, tracing and protecting people; preventing and controlling outbreaks and supporting vulnerable groups. It also calls for significantly better, honest communication in appropriate messages for diverse needs, with health literacy outreach to build informed action and accountability. It calls for timely warning of outbreak control measures and of support and exit strategies. It demands explicit attention to equity, non-discrimination and to implementing public health measures in ways that build trust and combat stigma, racism and xenophobia. We do not have a blank slate on this. We have drawn learning from the response to HIV, where those affected themselves challenged silence, neglect and stigma and co-created collaborative action; from ‘bottom-up’ responses to Ebola in Africa121 and from the many positive experiences in the responses emerging to COVID-19 noted earlier that provide valuable learning for public health.1171920

**Box 1 The United Nations (UN) Economic and Social Council in its 1984 Siracusa principles**

The UN Economic and Social Council in its 1984 Siracusa principles guide the state to exercise its powers for measures that restrict individual freedoms in a manner that:

1. Is carried out in accordance with the law.
2. Has clear public health purpose to improve or sustain public health by accomplishing essential public health services and functions, as a legitimate objective of general interest.
3. Is based on scientific evidence and not drafted or imposed arbitrarily.
4. Is strictly necessary in a democratic society to achieve the objective.
5. Is well targeted, through the least restrictive alternative, not applying to more individuals than is necessary for the public’s health, and given that there are no less intrusive and restrictive means available to reach the same objective.
6. Is based on the precautionary principle.
7. Includes ongoing public health education and outreach to encourage, facilitate and promote community participation in accomplishing public health goals.
8. Is respectful of human dignity, and not discriminate unlawfully against individuals.
9. Is of a limited duration and subject to review.22

**CONCLUSION: CHOOSING A COMPREHENSIVE, PARTICIPATORY PUBLIC HEALTH APPROACH**

COVID-19 will be with us for the longer term. It will not be the last pandemic. We do not need to and should not coerce, terrify, fatigue, undermine and harm public trust and public health systems in our response. We need a public health response that generates communication, understanding, learning, capabilities, civil responsibility, local innovations and global solidarity. COVID-19 has stimulated an extraordinary mobilisation of response in a short time. It provides an opportunity to learn, reflect on and build an effective form of public health to meet a 21st century that is facing multiple crises including future pandemics, climate, food, energy, precarious labour, grotesque and growing social inequality, conflict and other threats. In as much as there has been a historical trend towards centralised, authoritarian biosecurity responses, there have also been contesting movements towards a comprehensive,
social determinants, participatory and justice-driven public health, in different regions and countries and globally. Let us reclaim, support, invest in and implement this latter version of public health.

Author affiliations

1Training and Research Support Centre, Harare, Zimbabwe
2Department of Public Health, Institute of Tropical Medicine, Antwerpen, Belgium
3Health department, Sarvodaya Gram Udyog Sevansthan, Noida, India
4The George Institute for Global Health, University of New South Wales, Newtown, New South Wales, Australia
5Public Health, Health Education England North West, St Helens and Knowsley Teaching Hospitals NHS Trust, Prescot, UK
6School of Public Health and Family Medicine, University of Cape Town, Rondebosch, Western Cape, South Africa
7Instituto de Salud Publica, Facultad de Medicina, Universidad Austral de Chile, Valdivia, Chile
8Nuffield Centre for International Health and Development, University of Leeds, Leeds, UK
9Department of Public Health, Environments and Society, London School of Hygiene and Tropical Medicine, London, UK
10BRAC James P Grant School of Public Health, BRAC University, Dhaka, Dhaka District, Bangladesh
11Public Health, Universitas Sebelas Maret, Surakarta, Jawa Tengah, Indonesia
12Global Health, Save the Children Federation, Washington, DC, USA
13Department of Health Policy, Planning and Management, Makerere University School of Public Health, Kampala, Uganda
14Centre for Rural Health, University of KwaZulu-Natal College of Health Sciences, Durban, KwaZulu-Natal, South Africa

Twitter Tolib Mirzoev @t米尔佐夫和Ateeb Ahmad Parray @AteebParry

Acknowledgements The SHAPES Thematic Working Group (TWG) of Health Systems Global acted as platform for expressing interest in, and facilitating collaboration on, this piece. We acknowledge the contribution to background discussions on the issues with others in the SHAPES TWG, namely G Bloom, S Dorcoo, S Fischer, N Howard, B Kaim, J Lohman, H MacGregor, M Mandani, B Pratt, E Paul, E Sacks, P Sinivas, S Topp, G van Heteren and C Wenham and the contribution of D Nambari, Ál Ruano, B Taderera and A Zwi in technical edits.

Contributors RL initiated a draft of key conceptual points to which all authors inputted and which was used to prepare an early draft. All authors made text input to iterative drafts and provided reference materials used shared online document editing software. RL coordinated the inputs and edited the final manuscript.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Not required.

Provenance and peer review Not commissioned; internally peer reviewed.

Data availability statement There are no data in this work.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: http://creativecommons.org/licenses/by-nc/4.0/.

ORCID iDs

Rene Loewenson http://orcid.org/0000-0002-9928-540X
Kirsten Accoe http://orcid.org/0000-0003-1153-1942
Kent Buse http://orcid.org/0000-0002-5485-0110
Claudio A Méndez http://orcid.org/0000-0002-9100-5944
Tolib Mirzoev http://orcid.org/0000-0003-2959-9187
Erica Nelson http://orcid.org/0000-0001-9161-4814
Ateeb Ahmad Parray http://orcid.org/0000-0002-1653-1856
Eric Sarriot http://orcid.org/0000-0002-8889-3063
Moses Tetu http://orcid.org/0000-0001-6833-7601

REFERENCES

15 Pollock A. Thanks to outsourcing, England’s test and trace system is highly risky and unjustifiable. Lancet 2020;396:82–3.