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The future of the global noncommunicable disease agenda after Covid-19

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One of the fundamental tenets of epidemiology is that infectious diseases spread because of the co-existence of a pathogen, susceptible hosts, and a risk of exposure. While the novel coronavirus supplied the new pathogen, individual susceptibility and the risks of exposure are now understood through an intersectional framework comprising age, ethnicity, occupation, deprivation and an array of clinical risk factors (Sasser et al., 2021). This risk framework has only become more complex as the epidemiological and clinical evidence base has grown and, with it, the range of structural and clinical conditions that increase individual vulnerability. Of specific interest to this commentary is how such high-velocity changes in scientific and public understanding on Covid-19 have both interpellated and obscured the ways in which decades of rising global rates of non-communicable diseases (NCDs) have contributed to population level vulnerability to emergent infectious diseases across Global North and South. This, in turn, leads to two questions: Where has the global NCD agenda come from? And where might it go from here? Put another way, has the Covid-19 pandemic with its related recognition of the inequalities of exposure, risk and disease outcomes opened up new spaces of advocacy and strategic opportunity for the NCD community or might it divert attention from the hard-fought cause?

Public health, epidemiological and clinical communities have sounded the alarm on global health inequalities and rising rates of NCDs for at least the past forty years. But politicians have too often been able to look the other way. This has happened for a variety of reasons – other more pressing political (and health) concerns, global health funding streams that have long prioritised other areas of intervention such as maternal and child health, gaps in public health infrastructure and training, as well as the pervasive influence of what some have termed 'commercial determinants' or 'industrial vectors of disease' (Gilmore et al. 2011). The current pandemic has uncovered the damning legacies of such 'strategic ignorance' (McGoey 2012) by highlighting just how susceptible populations with high rates of obesity, diabetes, chronic respiratory or cardiovascular disease are to severe illness from Covid-19 across the world.

It is important to recall that even after three United Nations High-Level Meetings on NCDs in 2011, 2014 and 2018, frustration remained in the NCD community about a continued lack of global political commitment or action. Early victories such as the inclusion of NCDs in the Sustainable Development Goals (World Health Organisation 2017) have not been followed through with concrete action. The WHO Independent High-Level Commission on NCDs, convened in 2017 by the WHO Director General, concluded its final report *It's Time to Walk the Talk* with eight recommendations to address the ever-growing burden of NCDs. These included the need for Heads of State to fulfil their commitment to address NCDs, the need for policy, regulatory and legislative change, greater investment in NCD prevention, the need to include NCDs within Universal Health Coverage (UHC) packages, greater private sector and civil society engagement and the establishment of a multi-donor trust fund (World Health Organization 2019). Yet, shortly after the publication of the Commission's report, Covid-19 emerged and fundamentally changed the terrain – the 'conditions of possibility' - of NCD advocacy. Indeed, when Covid-19 struck, the scale and scope of the global NCD burden was well known, even if donors, global health funders and politicians had their eyes selectively trained on other problems.

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The case of NCDs is a clear example of the frequent divide between global and domestic health agendas and the cognitive dissonance that often characterises this. The same diseases that are known as "chronic" domestically in the United States or "long term conditions" in the UK are called "noncommunicable" in the global space dominated by actors like the WHO and the World Bank (Schwartz et al. 2021). In the nomenclature brought forth by Covid-19, NCDs are now known by the terms "underlying medical conditions", "pre-exisiting conditions" or "co-morbidities", which in the US alone affect an estimated 60% of the population. The past year has consequently and indelibly changed how we think about our existing health and the threat to our future health and how these might manifest across a range of spatial scales from the household up. It has also furnished us with a new language with which to talk about a problem that was already known. To further complicate matters, it has also shown that the categorical divisions between infectious and chronic diseases or communicable and noncommunicable diseases are a particularly unhelpful fallacy (Seeberg and Meinert 2015), given the syndemicity of the novel coronavirus with a broad host of these "pre-existing conditions" (Singer and Rylko-Bauer 2021). Thus, while Covid-19 has arguably instilled a heightened collective awareness of the susceptibility and vulnerabilities created by NCDs, this has most frequently been conceptualised at the individual or national scale. As such, the future of the *global* NCD agenda remains a very open question.

In the early months of the pandemic, the known chronic conditions that might elevate the risk of severe disease were far fewer and mobilised public and political awareness around relatively simple ascriptions of clinical vulnerability. But, as risk assessment tools have been refined, conditions such as diabetes or obesity have shifted from being clear markers of clinical vulnerability to being part of a broader risk matrix hidden within complex algorithms. The "qcovid" risk assessment tool used by the UK's National Health Service (Clift et al., 2020), for example, now lists no less than 30 medical conditions, additional mental health diagnoses, the use of certain medications or procedures, postcode, ethnicity, sex at birth and body mass index to classify individual risk levels. Such tools are an important step forward in predicting the risk of exposure and of serious illness or mortality from Covid-19. They also emerge from a recognition that initial classifications of clinical vulnerability failed to represent the true social and economic distribution of risk (see for example House of Commons Committee of Public Accounts 2021; Public Health England 2020). However, as risk prediction tools and algorithms have become more sophisticated, simple initial ascriptions of risk to exisiting NCDs have been complicated by the panoply of additional demographic, socio-economic and geographic risk factors. This has arguably weakened the strategic levers for action among the advocacy community as public messaging on vulnerability has become increasingly diffuse.

From an advocacy standpoint, Covid-19 should represent a moment of unparalleled potential leverage for an NCD community that should be galvanised by the heightened visibility of the category's five constituent diseases: cancer, cardiovascular disease, chronic respiratory disease, diabetes and, most recently, mental health. Within the NCD community, there has long been debate about the overly simple rendering of this category (and its five behavioural and environmental risk factors) and its failure to communicate the extent to which many NCDs actually have infectious aetiologies (Bukhman et al., 2020). Now, that has been turned on its head again as NCDs themselves emerge as a risk factor for infectious disease. These epidemiological interactions and their clear link to environmental and climate change offer fascinating points of future leverage for the NCD community (see World Health Organization 2020). At the same time, the pandemic has amplified the structural and behavioural risk factors for NCDs – rates of global poverty are increasing (Lakner et al., 2021), as are social and economic inequalities, scores of healthcare workers have died across Global North and South, access to medical treatment has been curtailed, education disrupted, rights eroded, jobs lost and many 'unhealthy commodities industries' have been able to use Covid-19 as an effective Corporate Social Responsibility vehicle (van Schalkwyk et al. 2021). These are far from novel issues for the NCD community and suggest that there is a chance that we may be entering a new phase of global awareness of the social and structural determinants of health.

Throughout the pandemic, for example, the heavy burden of NCDs has been among the many explanatory paradigms in countries such as the US, UK, India and Brazil that have endured high rates of Covid-19 mortality and morbidity. Conversely, their supposed absence has been used to support theories about why some countries have performed better in managing Covid-19 than might have been expected. The so-called "African paradox" (Ghosh et al. 2020) is one such example. Here, Covid-19 reported mortality rates were far lower than initially expected across the continent (Lawal 2021), an anomaly ascribed to a younger population and low rates of cardiovascular disease. Yet while Sub-Saharan Africa does have a lower burden of noncommunicable disease in a *comparative* sense, Covid-19 has exacerbated the significant *absolute* burden by disrupting access to treatment, reinforcing conditions of stigma, and potentially worsening many "pre-existing conditions" through its complex, long-term sequelae (Rosenthal et al., 2020). Given the NCD advocacy movement was founded on clearly articulating the relationship between NCDs and development and making visible the previously underacknowledged burden of disease from NCDs in Low- and Middle-Income Countries (Alwan et al. 2011), theories such as the "African paradox" threaten to undo much of that work by underplaying the already-significant toll of NCDs. And, crucially, with Africa's 'third wave' now accelerating fast, the "African paradox" no longer seems quite so paradoxical as hospitals are overrun, oxygen supplies depleted and mortality rates surge. Indeed, recent attempts to estimate global excess mortality suggest that Covid-19 mortality rates in Sub-Saharan Africa are 14 times that of official estimates (The Economist 2021). This figure draws attention to just how little we really know about how and why people get sick and die in much of the Global South due to an extreme paucity of vital statistics, despite the algorithmic acrobatics of the Global Burden of Disease (Gaudilliere and Gasnier 2020; Gouda et al., 2019).

Data gaps merely serve to perpetuate a situation where health systems that have been calibrated by the architecture of global health to deliver infectious disease treatment priorities (Benton 2015) have long failed to adequately deliver on NCD prevention or control. However, on the flip side, growing awareness of the disruption to NCD treatment by Covid-19 across global north and south has offered a new angle on questions of social justice, equity and a clear entry point into debates over UHC and future pandemic preparedness. A recent opinion piece by Katie Dain, CEO of the NCD Alliance, argues just this – that 'our failure to invest in NCDs has come back to haunt us' and that the likelihood of future pandemics is only growing and preparedness means 'recognising NCD prevention and care as essential aspects of health security' (2021). Her argument that NCDs need to be included in the narrow range of indicators for health security (i.e. the Global Health Security Index) is an important point of novel metricisation, accountability and leverage for the global NCD agenda. In a fascinating reversal (and perhaps admittance of the partial failure) of the huge work that went into carving out NCDs as a distinct category and workstream within the WHO, current advocacy calls for the greater *integration* of NCDs within communicable disease programmes. The vision of future pandemic preparedness thus brings NCDs into UHC, primary healthcare and communicable disease programmes under the banner of global health security. This is a fascinating development for NCD advocacy which has struggled with leveraging any kind of securitisation frame.

On a final point, it should be noted that vaccinations (and the lack thereof) have started to obscure and replace NCDs as explanatory frame for Covid-19 mortality. In countries with high rates of vaccination, morbidity and mortality is increasingly being narrated as an issue of those who are "unvaccinated", whether by choice, chance, or design. Across the world, vaccine equity and access are really the only viable pandemic exit route. The necessarily single-minded focus on this does,

however, risk rapid-onset amnesia about the array of other factors that have long conditioned for population vulnerability. Covid-19 has closed the world in on itself as national containment strategies have shut borders and vaccine nationalism has pitted country against country. Amid this, *national* health has been cemented as the chief frame of reference even while the pandemic has underscored just how crucial it is to envisage (and manage) health at the scale of the global, not least as future disease threats are rarely geographically fixed (Cousins et al., 2021) and vaccinating the world will require hitherto unseen degrees of global diplomacy and coordination.

Yet, NCDs still occupy a liminal space outside the mainstream ecosystem of global health and funding remains minimal (Allen 2016; Nugent 2016). With Overseas Development Assistance cuts threatening global health budgets still further, financial support for NCDs is not likely to increase in the short term. But Covid-19 will leave behind not only a greater burden of NCDs, but a global population that is now even more vulnerable to the next pandemic. As the NCD Alliance note in their most recent strategy document, 'accelerating the NCD response over the next six years will require seizing opportunities such as the response and recovery from COVID-19, as well as political momentum on related and interconnected issues such as universal health coverage (UHC), food systems, and climate change' (2021, 10). But they also acknowledge that 'there is a real risk that the *impacts* of Covid-19 will result in the NCD response sliding backwards and the global goals going unmet' (2021, 11, emphasis added). Just as NCDs were transformed from a 'lifestyle' issue of the Global North to a development issue of the Global South two decades ago (Schwartz et al., 2021), advocates now need to adapt and recalibrate their framing strategies once again.

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