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BUILDING A BETTER WORLD: THE CRISIS AND OPPORTUNITY OF COVID-19

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Local Covid-19 Syndemics and the Need for an Integrated Response*†

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Abstract The Covid-19 pandemic is more than a health crisis. It has worse outcomes among individuals with co-morbidities, has exposed fault lines in our societies, and amplified existing inequalities. This article draws on emerging evidence from low- and middle-income contexts to highlight how Covid-19 becomes syndemic when it interacts with local vulnerabilities. A syndemic approach provides a frame for understanding how Covid-19 is amplified when clustered with other diseases and how this clustering is facilitated by contextual and social factors that create adverse conditions. Public health responses to Covid-19 have also exacerbated these adverse conditions as many face social and economic crises as a result of some policies. These multiple challenges generate major implications for both the public health response and for broader development action: first, one size does not fit all and we must attend to local vulnerabilities; second, short-term public health response and longer-term development approaches must be integrated for improved intersectoral coordination and synergy. A synergised public health and development response will allow us to better prepare for the next pandemic.

Keywords Covid-19, syndemic, public health, inequality, vulnerabilities, epidemic response, development response.

1 Introduction

Richard Horton's comment in *The Lancet* in September 2020 (Horton 2020) highlighted what was already becoming apparent. The Covid-19 pandemic, while global in scale and scope, clusters within social groups due to co-morbidities and conditions rooted in inequality. This echoes a view long held by anthropologists studying both disease and epidemics (Farmer 1999; Dry and Leach 2010) and advanced in the **syndemic** framework (Singer 2009).

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A **syndemic** approach views Covid-19 not as a single issue in need of a narrow approach to epidemic response. Rather, as a syndemic, Covid-19 requires enhanced ways of thinking about epidemic response, through the attention to local conditions of disease and social and economic inequalities. Beyond this, we argue that taking a syndemic approach opens up the possibility of recognising much overlooked intersections between epidemic response and longer-term development practice.

Taking a syndemic approach emphasises that Covid-19 is more than a health crisis. It has exposed fault lines in our societies and amplified existing inequalities. Vulnerable populations are experiencing even more acute pressures within these societal cracks. However, the impact of the pandemic has varied, contoured by country and community contexts, and therefore the syndemic is also localised. The strain of the pandemic is interacting with existing local vulnerabilities, and local manifestations of poverty and marginalisation. Consequently, the pandemic has also become a crisis of social and economic futures. We have a singular opportunity to 'build forward differently' with progressive public health and development approaches that take inequality, adaptation, and collaboration seriously and ensure that no one is left out in this endeavour. Such a response would mean the difference between a protracted long-term recovery and one that builds a better social and economic future.

This article is based on a Briefing written in September 2020 (Leach *et al*. 2020a); it contains an Afterword which provides an update on the global situation in December 2020 and was written in December 2020.

In this article we draw on emerging evidence from the pandemic, especially in low- and middle-income countries (LMICs), to highlight social and economic vulnerabilities in diverse local contexts that have been driving what we also argue is a Covid-19 syndemic (Horton 2020). We then put forth key recommendations to mitigate a syndemic, in the case of Covid-19 but also beyond, focusing on localisation, long-term public health response, and synergies with the development sector to address underlying socioeconomic conditions that make populations more vulnerable.

2 Syndemics

A syndemic approach explicitly recognises the role of macro-level social factors in promoting the clustering of disease at the population level (Singer *et al*. 2017; Mendenhall 2017; Singer 2009). There are several points of synergy in a syndemic. A syndemic focuses on biosocial connections, or how interactions between social and environmental factors enable synergistic disease outcomes (Singer *et al*. 2017). It explains why certain diseases cluster in disadvantaged or vulnerable social groups. However, a

syndemic includes two or more diseases or other health conditions and is about more than co-morbidities. It is about how inequalities shape social, environmental, and economic factors that make populations more vulnerable to multiple disease outcomes. Singer and colleagues define a syndemic as a:

> Population-level clustering of social and health problems. The criteria of a syndemic are: (1) two (or more) diseases or health conditions cluster within a specific population; (2) contextual and social factors create the conditions in which two (or more) diseases or health conditions cluster; and (3) the clustering of diseases results in adverse disease interaction, either biological or social or behavioural, increasing the health burden of affected populations (Singer *et al.* 2017: 942).

In this sense, an individual with two or more health conditions may experience overall worse outcomes precisely because of syndemic pathways. For example, Mendenhall (2012) described the VIDDA syndemic, or how Mexican-American immigrant women experienced a syndemic of violence, immigration-related stress, depression, Type 2 diabetes, and abuse. Immigration-related stress, violence, and abuse were precursors of depression which interacts with diabetes through specific biological pathways to produce worse health outcomes (*ibid*.).

3 Hypothesising Covid-19 as a part of a syndemic

Evidence is still emerging on the specific ways in which Covid-19 might interact with other, existing health and social conditions to cluster in certain social groups and result in an adverse disease interaction or 'severe Covid-19' (Horton 2020). Many epidemic diseases (including influenza and SARS) are syndemic: tuberculosis, smallpox, measles, pneumonic bacteria, HIV/AIDS, and malnutrition – diseases which cluster and synergise with other diseases in socially vulnerable groups (Mendenhall 2017). A Covid-19-linked syndemic would also depend on local vulnerabilities and co-morbidities and so it is very unlikely that the same syndemic with the same components would apply everywhere. As a novel human coronavirus, we are learning more about SARS-CoV-2 each day. Despite this rapidly evolving field, emerging research and experience point to Covid-19 as being part of locally defined syndemics.

Underlying co-morbidities such as hypertension, cardiovascular and cerebrovascular conditions, chronic kidney disease, liver disease, and diabetes are some of the most common identified for any kind of Covid-19 infection (Zhou *et al.* 2020; Yang *et al*. 2020; Zhao *et al*. 2020; Zhang *et al*. 2020; Sanyaolu *et al*. 2020). Co-morbid respiratory disease has been identified as the strongest risk factor for severe Covid-19 outcomes such as severe clinical manifestations, ICU admission, and death (Zhou *et al*. 2020). Hypertension and cardiovascular disease (CVD) are also risk factors for severe Covid-19 and death (Lippi, Wong and Henry 2020;

Borges do Nascimento *et al*. 2020). Emerging data from African settings point strongly to diabetes, especially in older adults (>60 years), as increasing the risk of complications or death from Covid-19. Eighteen per cent of Covid-19 deaths in the region are among people with diabetes.

The age profile for severe Covid-19 cases has been clear from the outset of the pandemic (Daoust 2020; Neumann-Podczaska *et al*. 2020; Shahid *et al*. 2020). An early analysis by the World Health Organization (WHO)–China fact-finding mission found that Covid-19 patients over the age of 60 with co-morbidities had the highest risk of severe illness and death (WHO 2020a). Conversely, there have been relatively fewer cases of severe Covid-19 in countries with very young age profiles (Fairhead and Leach 2020). There is emerging evidence on the clustering of Covid-19 in specific social groups such as low-income African American and Hispanic populations in the United States (Andersen *et al*. 2021; Kim and Bostwick 2020; Cordes and Castro 2020) and urban populations, particularly the urban poor (Wilkinson 2020; Corburn *et al*. 2020).

However, it is difficult to find documented evidence of these synergies, especially among low-income urban residents for whom data on disease prevalence is often unavailable or patchwork in LMIC contexts (Friesen and Pelz 2020). Despite this paucity of data on co-morbidity prevalence in low-income settings, all of the mentioned Covid-19 co-morbidities tend to cluster in socioeconomically disadvantaged groups (Wilkinson, Conteh and Macarthy 2020). Covid-19 vulnerability increases for those with risky occupations, including those who cannot work from home (e.g. informal workers). Additionally, Covid-19 vulnerability is greater in urban areas given challenges to physical distancing, isolation within the home, and higher population density.

4 Adapting public health responses from a syndemic framework

As the Covid-19 pandemic evolves, public health responses have also changed and been challenged by the complexities of containing its spread. Nevertheless, public health approaches have been largely vertical and uniform, especially at the outset of the pandemic when very little was known about what might work (SSHAP 2020; Sominsky, Walker and Spencer 2020). We briefly review key themes from public health responses to Covid-19. We discuss challenges to these responses in light of key social and economic vulnerabilities that are root causes of a syndemic, and articulate ways that responses could better address Covid-19 as a syndemic. These approaches will require further attention in future public health responses to Covid-19, and also provide lessons for responding to future syndemics.

4.1 Adapting to local context and local vulnerabilities

Early learning from the Covid-19 pandemic has shown that a one-size-fits-all approach to the response insufficiently attends to local contexts, which are vital in a syndemic approach

(SSHAP 2020). In Sudan, the government reacted quickly to Covid-19 in March 2020, closing schools and universities, implementing border restrictions, and an isolate, treat, and trace strategy (*ibid*.). This was followed by a blanket stay-at-home order to bolster containment of community transmission (Al-Jazeera 2020). While the government also engaged in risk communication, information sharing was unidirectional. Further, mistrust of the government and government information drove misperceptions of the virus.

Other African countries also reacted quickly to the pandemic, reflecting many years of strengthening epidemic preparedness and response systems on the continent (Makoni 2020; Ihekweazu and Agogo 2020). While these swift responses were lauded for mitigating Covid-19 spread, questions were raised about the feasibility of Covid-19 prevention and response measures in low- and middle-income contexts. Measures such as physical distancing and handwashing were adopted but proved a challenge in contexts of high urban density or water scarcity (Mehtar *et al*. 2020; Nkengasong and Mankoula 2020). In Kenya, early evidence pointed to the impact of movement restrictions on informal settlement residents who were suddenly without income and unable to rely on savings for long (SSHAP 2020). As such, a localised approach to the public health response would be one that is better tailored to context and which considers local assets, needs, and vulnerabilities that drive a syndemic such as Covid-19.

Early evidence from the Covid-19 pandemic in sub-Saharan Africa highlighted the need to build human resources for health to mitigate Covid-19 and co-morbidities (Rollston *et al*. 2020). Community health workers (CHWs) play a key part in public health systems, often being the main point of contact with the health system for rural areas. Yet, preliminary evidence suggested that CHWs had insufficient personal protective equipment and lacked training (*ibid*.). To ameliorate this, Amref (formerly the African Medical and Research Foundation) supported CHWs with Covid-19 training and additional support through mobile phone platforms (Amref n.d.). Amref added WHO-approved content and training to its Leap platform, which reached 54,000 CHWs in Kenya (*ibid*.). Similar efforts may be made with traditional healers and other health system actors, who can be supported with training and linkages to CHWs so that cases of Covid-19 are handled, documented, and referred as needed.

Engaging community-based organisations and stakeholders has been fruitful to build a more localised response. For instance, the local networks of Slum Dwellers International (SDI) in Asia and Africa have been an important bridge between vulnerable residents in informal urban settlements, community leaders, and city authorities (Patel 2020). In some urban areas and cities, these relationships have been established through years of participatory development and advocacy, and local groups

maintain regular dialogue with authorities. Local groups are also better positioned to identify vulnerable populations and key relevant issues that need to be addressed. SDI's chair, Sheela Patel, argued that two major Covid-19 guidelines – on physical distancing and handwashing – were difficult to follow in urban informal settlements (*ibid.*). Many informal settlement homes are multigenerational and distancing proved not to be possible. Further, water and sanitation were already scarce in many informal settlements and water points are usually shared (Wilkinson 2020). Water, sanitation, and hygiene (WASH) interventions were important to the prevention of further Covid-19 transmission (Mushi and Shao 2020). Recent WHO guidance on WASH interventions for Covid-19 prevention underscores a need to enable regular hand hygiene, disinfect water, and manage wastewater (WHO 2020b).

4.2 Building syndemic preparedness and response

The Covid-19 pandemic has exposed gaps in public health systems around the world, signalling the importance of future investments in epidemic preparedness and health systems strengthening (OECD 2020). Existing epidemic responses typically treat disease in silo, whereas a syndemic approach necessitates synergised interventions. What this means in practice will depend on the local context, but might include a more integrated epidemic response within the public health system or better management of chronic diseases. In the future, intersectoral approaches should be built into epidemic preparedness and response to acknowledge the syndemic nature of many diseases, as revealed by the Covid-19 experience.

While the biological synergies between co-morbidities and Covid-19 are still being understood, many chronic diseases remain unmanaged especially in vulnerable settings (Wilkinson, Conteh and Macarthy 2020). This has been hypothesised as a potential driver of severe Covid-19 as some are starting to distinguish between managed and unmanaged co-morbidities and differential effects on Covid-19 outcomes (Pal and Banerjee 2021; Holman *et al*. 2020). Health systems strengthening could serve two key purposes: first, to improve the prevention of chronic disease, and second, to better manage chronic diseases in the future. In the shorter term, the WHO provides guidance on strengthening health systems and reorganising service delivery to respond to Covid-19 while maintaining core essential services, such as the management of diabetes, across the continuum of care (WHO 2020c). How these goals are achieved will be country- and context-specific. What is clear is that stronger health systems can mitigate future outbreaks and enhance global health security for all (Micah, Leach-Kemon and Dieleman 2020).

There are a number of emerging options for longer-term and proportionate public health response. Other potential responses to Covid-19 have included shielding, providing home care, or

focusing on test, treat, and isolate (SSHAP 2020; Schmidt-Sane, Tulloch and Jones 2020; MacGregor and Hrynick 2020). Shielding (a measure to protect extremely vulnerable people from coming into contact with the virus, by minimising all interaction between them and others) has been used in settings to isolate the clinically vulnerable while allowing other members of a community to continue their daily activities (Schmidt-Sane *et al*. 2020; Seifu Estifanos *et al.* 2020; Smith and Spiegelhalter 2020; Butler and Tulloch 2020; Favas, Checchi and Waldman 2020). Shielding may be considered in LMIC contexts that are facing an uptick in Covid-19 cases as an alternative to a full lockdown.

5 Broader impacts of Covid-19

The current pandemic has highlighted complex tensions between a vertical Covid-19 response and the need to also attend to underlying social and economic conditions that produce a clustering of disease in the first place (Hrynick, Ripoll and Carter 2020; Abrams and Szefler 2020). The availability of affordable and cost-effective interventions on non-communicable diseases and other co-morbidities would avert deaths among the world's most vulnerable and would prevent the next syndemic (Horton 2020). However, current responses to Covid-19 fail to recognise these complexities and the broader impacts of a siloed approach to containment. As such, we highlight areas where the Covid-19 response has had an adverse effect on other areas of health and wellbeing.

5.1 Broader health impacts

A vertical public health response that draws all attention to one disease can lead to an increase in morbidity and mortality from other prevalent illnesses, especially in contexts where disease burdens are high (Hrynick *et al.* 2020). A vertical response includes policies, programmes, and implementation solely for the purpose of preventing and mitigating Covid-19, without considering how to continue other services and mitigate potential impacts on broader service delivery (*ibid*.; Atun, Bennett and Duran 2008). In practice, a vertical response affects the wider health system as it draws resources and staff away from other areas of the health system (Atun *et al.* 2008). While a vertical response can be effective to deploy resources quickly for a targeted response, it has long-term implications especially during a protracted crisis such as Covid-19.

In an ongoing epidemic, a diversion of health-care resources and factors such as movement restrictions and fear of contracting disease can lead to a decline in accessing health services (Hrynick *et al*. 2020). In the case of Covid-19, medical supplies and treatment for chronic diseases and conditions have been disrupted; access to safe childbirth has been reduced, leading to an estimated 57,000 additional maternal deaths; nutrition programmes have collapsed; and the detection of new diseases has been delayed (*ibid*.; Pinto and Park 2020; ARISE 2020).

An estimated 500,000 additional AIDS-related deaths are likely in 2020–21 in sub-Saharan Africa due to disruptions in accessing HIV treatment (Jewell *et al*. 2020). Women of reproductive age have had difficulty accessing sexual and reproductive health (SRH) services, with 'non-essential' medical procedures limited during the pandemic (Cousins 2020; Riley *et al*. 2020). For example, lockdowns in Nepal and India forced clinics to close. Disruption in the provision of SRH services has led – and will lead – to unwanted pregnancies, higher maternal mortality, and/or unsafe abortions (Cousins 2020).

Some groups face additional risks under physical distancing measures as a result of their social vulnerability (Anthrologica 2020). Restrictions due to the pandemic disrupted the HIV continuum of care and prevention – that is, testing, pre-exposure prophylaxis, and primary care (Hrynick *et al*. 2020; Riley *et al*. 2020). HIV patients who sought treatment confidentially were no longer able to find safe mechanisms to leave home in pursuit of treatment, which could have long-term and life-threatening impacts (Riley *et al*. 2020; Friends of the Global Fight n.d.). Supply chains have been struggling to continue providing essential medicines such as antiretroviral therapy drugs for the treatment of HIV (Golin *et al.* 2020). In Pakistan, the common management unit for AIDS, TB, and malaria, in collaboration with the Joint United Nations Programme on HIV/AIDS (UNAIDS) and other partners, worked to ensure the uninterrupted supply of antiretroviral therapy for people living with HIV (UNAIDS 2020).

5.2 Exacerbating the syndemic: social difference, synergistic vulnerabilities, and inequalities during Covid-19

While epidemics thrive in societal fault lines, epidemics and epidemic response also reveal a highly unequal world, often the result of long histories of marginalisation (Patel *et al.* 2020). The impact of historical inequalities paved the way for HIV to impact marginalised communities disproportionately, and we are seeing much the same with Covid-19 (Sangaramoorthy 2020). Lessons from the Covid-19 response have highlighted the need to consider health equity, social justice, and human rights alongside the health response (Wang and Tang 2020; Cash and Patel 2020; Fleetwood 2020). A key principle of global health is social justice and equity, yet this has not been at the centre of most country-level Covid-19 responses (Cash and Patel 2020).

Vulnerabilities to Covid-19 and its social and economic effects are synergistic and more acute among marginalised populations (Shadmi *et al*. 2020). Covid-19 has disproportionately impacted minority groups, including racial minorities (Yancy 2020) and religious minorities (Mukherjee 2020), among others. Covid-19 is also syndemic with gender-based violence (GBV), although few measures have been taken to situate GBV responses within the broader response to Covid-19 (ARISE 2020; Stark *et al.* 2020). Thus, as Covid-19 is syndemic, the virus interacts with an array of

non-communicable diseases (Horton 2020), and these conditions cluster within social groups that face greater structural inequalities, further driving the syndemic (Singer *et al*. 2017; Mendenhall 2017).

The impact of Covid-19 in some countries has disproportionately affected urban populations, both in terms of the spread of the disease and loss of informal and formal livelihoods – as evidence from Southeast Asia shows (Schmidt-Sane, Ripoll and Wilkinson 2020). Health staff and carers have been at greater risk of being infected, with these roles more often being undertaken by women (Cousins 2020). Differences and inequalities have emerged in the way people develop Covid-19, whether by age, gender, underlying health conditions, geography, or socioeconomic factors. Some populations have also been left out of a response. For example, marginalised social groups often face stigma from health-care workers (Teo, Tan and Prem 2020; Logie and Turan 2020). Fear of discrimination may mean that they might not seek formal health care even when it is accessible.

Experiences and impact of the Covid-19 pandemic have been more acute for those living at the margins, including religious and ethnic minorities, sexual minorities, and other persecuted individuals (Platt *et al*. 2020; Franco-Paredes *et al*. 2020; Kantamneni 2020). Marginalised populations face multiple, synergistic vulnerabilities, meaning that multiple forms of vulnerability (social, economic, health) contribute to a greater overall vulnerability to Covid-19 (Winchester 2015). In fact, Covid-19 has not always been a priority at all, as individuals have faced more pressing concerns related to livelihood generation and survival (Schmidt-Sane *et al.* 2020). Sex workers, for example, are among the communities most affected by stay-at-home orders and accompanying police enforcement in countries such as Kenya (The Global Fund 2020). The Bar Hostess Empowerment and Support Programme (BHESP), Kenya's oldest sex workers' organisation, reported disruptions in condom distribution, outreach HIV prevention programmes, and violence prevention initiatives (*ibid*.). Sex workers face not only increased precarity, but a loss of income.

6 Building synergies between public health and development response for a Covid-19 syndemic

As introduced at the outset of this article, a Covid-19 syndemic is underpinned by social and economic conditions that facilitate the clustering of both Covid-19 and co-morbidities. Given these multiple and rapidly shifting dynamics between Covid-19, social, and economic drivers, we are seeing further evidence that new approaches are needed which do not just seek to remedy a disease, but also to address its social determinants and impacts of a stringent public health response. Put another way, a syndemic necessitates an integrated response that is social justice-oriented and explicitly and intentionally builds bridges between public health and development sectors. Our approach

to epidemics should not be about immediate crisis but should be part of an intersectoral response to preparation, response, and recovery (Bedford *et al*. 2019). In this final section, we examine examples of responses to the socioeconomic impacts of the pandemic and argue that an integrated approach will be vital to building a 'better future'. We argue that a more inclusive economic and global health agenda could be built through collaborations across the public health and development response, with several key priorities centre stage.

Localisation and collaboration in all responses. The specific dynamics of a Covid-19 syndemic are local and depend on locally manifested vulnerabilities and co-morbidities, even if these vulnerabilities reflect wider structural inequalities. Whether controlling the syndemic, mitigating secondary impacts, or supporting recovery, responses should similarly be localised. This includes acknowledging that communities are experts and can be supported as partners in their own recovery. This includes attention to specific national settings, support for bottom-up, community-led action, and responsiveness to the many locally felt uncertainties pervading the epidemic. Moving away from standard top-down approaches and instead taking a more adaptive, flexible, and collaborative approach, would help in achieving this balance.

Support for programmes to mitigate health and social impacts on the most vulnerable. While the health crisis is wide-ranging, a key consideration for future response is how to maintain essential services while also directing funds to target the social and economic impact of the pandemic (both the outbreak itself, and the impacts of public health and control measures such as lockdowns and prolonged social distancing interventions), aligned with approaches that will build back better in longer-term recovery. By looking beyond immediate Covid-19 public health needs, the global community is well placed to address issues such as food insecurity, loss of livelihoods, and access to basic health services that address wider health issues. This would include improved social protection measures as a key part of epidemic preparedness and response in the future. This intersectoral approach would move beyond addressing only the health aspect of an epidemic and instead attend to underlying vulnerabilities that worsen an epidemic's impact.

Synergies across responses between key actors and across sectors. As we seek to build a better Covid-19 response and post-Covid world, it will be vital for different sectors to coordinate the response and recovery. In planning and resourcing the public health response and mitigation programmes, coordination is essential between agencies and departments (both international and national) to ensure there are no gaps or duplication, to get money to where it is needed, and to improve efficiency of spending (Leiderer 2015).

- **Building inclusive, caring economies:** Covid-19 and the inequalities it thrives on reveal problems with conventional market-led, growth-focused development models, which have not prioritised inclusivity. It highlights the importance of approaches that value and support people's essential wellbeing, socioeconomic needs, livelihoods, and the relationships – between people, and with the environment – on which these depend. There are needs and opportunities to foster more collaborative, caring economies that factor in a wider range of values than growth alone, and which build on informal as well as formal economic practices and community-level solidarities.

- **Building more equitable societies:** the Covid-19 crisis has revealed the significance of multiple, intersecting inequalities. The effects of the disease, control measures, and secondary impacts have been felt unevenly across societies, feeding off and amplifying structural differences and vulnerabilities linked to gender, class, ethnicity, age, disability, geography, and more. A post-Covid recovery should ideally focus centrally on fostering more equitable societies, through investments that target gender and other forms of equality, and which actively seek to prioritise the needs and interests of those furthest behind.

- **Adaptive, plural learning approaches:** the uncertainties, rapid dynamics, and diverse contexts affecting the unfolding Covid-19 situation have proved a poor fit with top-down, linear, blueprint-style approaches to development and planning. Instead, they highlight the need for more flexible, adaptive approaches attuned to particular contexts and which can evolve iteratively over time as things change. There is also a need for plural forms of knowledge and expertise (from both social and natural/medical sciences, and vitally, the local knowledge of people living at the margins or otherwise 'behind') to inform continuous learning and the navigation of uncertainties.

7 Conclusion

In this article, we have argued that Covid-19 is a part of a syndemic that is locally defined based on local vulnerabilities and co-morbidities. Public health responses to Covid-19 have often been siloed and have sometimes exacerbated underlying social and economic vulnerabilities. The Covid-19 syndemic and its social and economic impact represents a watershed moment, and how we respond may have implications for generations to come. Future global challenges may be equally complex, and we should strengthen our ability to innovate and adapt through tailored solutions that reflect local realities. Covid-19, treated as a syndemic, thus offers lessons not just for rethinking approaches to epidemics, but to development more generally (Leach *et al*. 2020b). Such rethinking of public health/development might

have core principles such as equity, social justice, resilience, and inclusion at its heart. Further, by demonstrating a commitment to the vulnerable in society, it is possible to build a better post-Covid world that takes care of all. Through these approaches, there is a potential to deliver a more effective and synergised public health and development response, both to Covid-19 and to other syndemics into the future.

Afterword

This article is based on an earlier publication that was primarily a Positioning Paper. The article builds on that previous work, but has also incorporated additional analyses, framing, and evidence. As authors, we have seen additional evidence emerge that better positions Covid-19 as part of a syndemic as we see differential effects of the virus depending on local co-morbidities and vulnerabilities. As such, we have extended our previous work to focus on a syndemic approach and how that could be addressed by a more integrated public health and development response.

Notes

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