Community Engagement, Co-Production or Citizen Action? Lessons from COVID-19 Responses in India and Bangladesh's Informal Urban Settlements

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Abstract

Government COVID-19 disease control efforts in many contexts have been critiqued as simultaneously inadequate and authoritarian, causing widespread suffering. "Top-down," bio-security focused approaches aimed at achieving behavioral change through information dissemination and legal measures have often been ineffective in informal urban settlements, for a range of reasons related to the nature of citizen-state relationships. Community engagement, participation, "co-production," and citizen- and civil-society-led efforts have variously been identified as important to pandemic responses. However, to date, there have been few examinations of the ways in which social, political, and economic environments shape community actions during the COVID-19 pandemic, and the extent to which these have reached the most marginalized. Drawing on data and experiences of collaborative research and action from four cities in Bangladesh and India, we argue that citizen and community responses in informal settlements have often emerged from the necessity to survive in the absence of effective state interventions and support to guarantee the basic rights of citizens. They therefore represent neither engagement of the state with citizens nor genuine "co-production." Community action emerging from inadequacies in state responses merely pushes the responsibilities of the state to poor and marginalized communities, many of which are fractured by axes of disadvantage such as length of residence, class, caste, religion, and gender. Effective community engagement or co-production requires the willingness of the state to recognize the rights of informal urban residents as urban citizens, trusting relationships within systems and structures built over time prior to a crisis, and the willingness of the state to share resources and cede power over decision making. Multi-sectoral, multi-scalar and multi-stakeholder collaborations that balance "top-down" public health policy implementation with community organization, through communication and accountability channels that privilege the perspectives of the marginalized, are required. Community engagement and co-production cannot be a standardized intervention but require ongoing processes of political, social, economic, and cultural negotiation and will play out in varied ways across different contexts.

Introduction:

Epidemic diseases are public health emergencies and controlling them is primarily the responsibility of state institutions. The COVID-19 pandemic has highlighted longstanding tensions between "biosecurity-focused, authoritarian and sometimes militarized approaches to public health, and in contrast, comprehensive, social determinants, participatory and rights-based approaches."[1] From the latter perspective, disease prevalence and mortality reduction alone cannot be considered as adequate markers of successful disease control.[2] In October 2020, the World Bank predicted that between 71 and 100 million people would be pushed into extreme poverty as a result of the pandemic and the indirect effects of pandemic response.[3] In much of the Global South, a large number of urban residents live precarious lives in informality, and strict disease control measures can have serious negative impacts on the lives and livelihoods of the poor.

Informal settlements now house a third of the world's urban population,[4] and their residents suffer disproportionately from substandard health throughout their lifetimes.[5] Inadequate housing, crowded spaces, limited or non-existent access to basic services (including health services), precarious livelihoods, and limited ability to furnish identity documents necessary to access services are longstanding issues for the urban poor. The COVID-19 crisis has only accentuated these inequities. Epidemic control measures in most countries in the Global South do not take into account these deficits, resulting in negative consequences for most urban informal residents. Failing to attend to these socioeconomic realities, which determine these residents' ability to follow public health advice and measures such as lockdown, can impede a country's overall pandemic response.[6]

Epidemic disease control measures, particularly those developed within the "biosecurity-focused" model, tend to follow a one-size-fits-all approach. Standardized approaches are not only inequitable in their immediate impact but are likely to increase inequalities in the long term.[7] While addressing public health emergencies such as the COVID-19 pandemic requires resources at scale that are mainly available to governments, effective and equitable public health approaches rely on multidirectional flows of information, as well as trust and cooperation between different sectors of society, in line with the comprehensive public health model.[8] Inequalities in cities, however, pose significant barriers to development of cooperation and trust. The vast numbers of urban residents engaged in informal work and residing in

informal settlements already face multiple exclusions, and they may lack trust in government or constructive relations with local authorities. Meaningful community participation is required to build and enhance trust and engage with deep-seated challenges around food security, stigma, and fear of epidemics. Examples documented across a range of countries in the Global South have demonstrated the important contributions of community participation and civil society responses in shaping effective disease control measures, primarily using existing local support structures.[9]

Meaningful engagement, participation, and co-production with communities has been identified as essential to identifying, acknowledging, preventing, and responding to the risks and unintended consequences that control measures can produce, particularly those shaped by intersecting inequities.[10] Co-production is most commonly defined according to Ostrom's definition as "the process through which inputs used to provide a good or service are contributed by individuals who are not 'in' the same organization."[11] However, with regard to citizen-state co-production in cities in the Global South, there are a plethora of definitions available. We find Kate Lines and Jack Mackau's definition to be relevant to the COVID pandemic: "a situation in which the state and citizens come together to find a solution to a challenge, with both parties going beyond their normal processes and building an altogether new solution based on their synergy."[12] However, it is important to acknowledge that epidemic responses emerge within existing social relations and political economies, which must be strategically navigated to pursue equitable outcomes. Current literature lacks exploration of the specific political, economic, and social circumstances in which community engagement, participation, or co-production emerges.[13] It also neglects the ways that engagement is shaped by multiple intersecting inequities.[14] We address this gap by reflecting on empirical evidence from case studies in cities across India and Bangladesh. We highlight how community responses to the pandemic in urban informal settlements emerged to cope with the inadequacy of state support and as such, could not be categorized as community engagement or co-production. We argue that mere community engagement is no panacea for government failings; in order to improve the equity, effectiveness, and sensitivity of pandemic response, a multi-scalar approach grounded in a comprehensive public health model is required. This requires health systems to meaningfully engage with, and be accountable to, communities to co-produce appropriate response measures to meet the unique needs of the vast population living in informal settlements.

Methods

Study setting

In both Bangladesh and India, lockdown was the main measure used by the governments to control the spread of the virus. On 25 March 2020, the federal government of India announced a lockdown across the country with only a four-hour notice, and Bangladesh announced its lockdown on 26 March 2020, leading to closure of most institutions and businesses. The effects of the lockdown, and citizen responses to it, are therefore the main subject of the case study analyses.

Data collection

We aimed to explore the different governance aspects of COVID-19 control and its impact on people living and working in urban informal settlements. Information for the case studies comes from preliminary thematic analysis of in-depth interviews from ongoing research conducted by the ARISE consortium. ARISE, which stands for Accountability and Responsiveness in Informal Settlements for Equity, is a five-year participatory action research program supported by the UK Research and Innovation's Global Challenges Research Fund across India, Bangladesh, Kenya, and Sierra Leone. We conducted qualitative interviews in three Indian cities: Mumbai, Guntur, and Vijayawada, and in the Bangladeshi capital, Dhaka. All interviews were conducted from April 2020 to February 2021.

Sampling

- Mumbai (India): The selection of respondents was carried out by local federation partners of the Society for Promotion of Area Resource Centres (SPARC). SPARC is an NGO working with two community-based organizations in India, the National Slum Dwellers Federation (NSDF) and Mahila Milan, which means "women together" in Hindi. To obtain a fair representation of these communities, SPARC's partners selected respondents living in slums and slum relocation colonies based on such factors as their age group, their participation in relief work, and their personal experience with COVID-19 infection and treatment. The respondents were selected from the Bainganwadi, Shivaji Nagar, and Airport informal settlements as well as three "relocation colonies" in Mumbai: the Natwar Parikh compound, PGMP colony, and Lallubhai compound.[15] SPARC staff experienced in qualitative interviewing conducted the interviews with men (n=9) and women (n=16) aged 20-65.

- Guntur and Vijayawada (India): Experienced researchers from the George Institute (TGI) and the Dalit Bahujan Resource Centre (DBRC) conducted qualitative interviews with key informants purposively selected by gender (n=2, one man and one woman) and waste pickers (n=7, four women and three men).[16]
- Dhaka (Bangladesh): Experienced qualitative researchers from the James P. Grant School of Public Health (JPGSPH) conducted longitudinal case study interviews with young adults and adolescents (n=12, six female and six male). Respondents came from the Moddho Badda low-income housing area in Ghudaragat; Korail Basti, one of the largest slums in Dhaka; and the low-income housing in Moghbazar, an area near a railway crossing. Two of the respondents in Dhaka have since relocated and now reside in a village.

All interview data were analyzed using a thematic analysis approach. Data were repeatedly read and codes assigned, allowing for the development of common themes across the study sites.[17] This approach also helped in identifying rich individual stories that illustrated one or many of the identified themes. All names included in the case studies are pseudonyms.

The Mumbai case study focuses on issues faced by people living in slum relocation colonies during the pandemic, and it highlights a few small yet impactful actions taken by the residents themselves. The Dhaka case study focuses on the loss of livelihoods due to lockdowns among those who were already living on the margins before COVID. Finally, the experience of waste pickers in Guntur and Vijayawada point to the specific precarity of informal waste pickers, who have largely remained invisible in the epidemic response. Results are presented below by city.

Mumbai — The COVID-19 Experience in Slums and Slum Relocation Colonies

Food Access and Mobility

> *"People here have small houses and bigger families; it is difficult for us to stay inside the house. It's so hot and we have patra on the top.[18] You cannot tell anyone here, 'Don't come out of the house, you are safe in the house.' They will shout back at us."*
> - Fausiya, 52-year-old female, Bainganwadi slum

As illustrated above, the restrictions imposed by India's government did not consider that about 42 percent of Mumbai's population lives in informal settlements such as Fausiya's, and that lockdown measures would be extremely challenging to implement in these communities.[19] Crowded homes and uncomfortable housing conditions make staying indoors for extended periods very difficult. Many people need to use available common spaces at the same time, and crowding is unavoidable.

Community action is crucial to prevent further overcrowding in public spaces in informal settlements as well as in dense slum relocation colonies, by allowing the residents to formulate their own measures. In the dense Natwar Parikh compound, for example, prominent leaders jointly drew up schedules for movement of people for essential goods, to prevent crowding, and restricted vehicular movement at entry points, as narrated by multiple interviewees.

India's invoking of the Disaster Management Act (2005) and Epidemic Diseases Act (Amendment, 2020) allowed police to enforce movement restrictions, with guidelines on exceptions introduced further into the epidemic. This had an immediate impact on access to food. As one interviewee remarked:

> *"This lockdown is not at all for people like us. We earn daily and eat. We don't have any extra income that we can save. At least when my work was on, I used to get some food from the houses, but now that has also stopped. We don't go to neighbors to ask anything since everyone's condition is the same."*
> - Amina, 42-year-old female, Natwar Parikh slum relocation colony

Amina and her family of six live in a 225-square-feet apartment with tap water and attached toilet. She earns a living by doing domestic work and, like many others engaged in informal work, was put on forced unpaid leave due to the lockdown. Even for those with savings, procuring food became difficult because of strict movement restrictions.

Families such as Amina's soon ran out of basic resources to sustain themselves. Heena, for instance, is a savings group leader from the PGMP slum relocation colony, working with the women's collective Mahila Milan to help female residents build personal savings. Under lockdown conditions, however, Heena noted, "There are many poor people who don't have enough food and money to survive with this crisis. In one way it is good that to save people

from this virus we have to stay home, but what about our stomach? We need to feed that also, we need to go out for that."

As the food crisis became evident, on 31 March 2020, a government order announced the distribution of five kilograms of free rice per person, in addition to the other monthly entitlements under the Public Distribution System (PDS), to eligible families.[20] As per the order, this rice was to be distributed in April, May, and June. However, as Heena noted, there were difficulties in accessing the entitlement: "We found out that many people don't have ration cards," she told us. "We ourselves went door to door and did the survey of such people. Anyway, in the ration shop we don't get all the grains—one month we got rice and next month we got only wheat, no other stuff such as dal, sugar, etc." In Heena's survey of 4,057 families, 42 percent reported that they were unable to access this relief.

Demonstrating the crucial role of community organization and agency, Heena and the extended network of NSDF, together with SPARC, mobilized to deliver food for the residents. The federations prioritized families based on their vulnerabilities: those who could not earn during the lockdown and had no savings, the elderly with no earning family members, single mothers, and families burdened by the costs of health care for a sick family member. Selvi, a 50-year-old Mahila Milan leader, said "the goal is to ensure no one goes hungry." Those interviewed also cited the positive impact of youth groups which set up community kitchens and elicited personal contribution of food grains from fellow residents, showing that a range of actors collaborating at a local level was crucial during the initial days of the lockdown.

Screening program

Experiences with screening and testing in the initial days following the lockdown varied, with some areas apparently left out. Gausiya, a 44-year-old female from Lallubhai compound, said in an interview in June 2020, "There are many cases in Lallubhai but none of the government people are ready to come and do any workshop or camps in our area." Mahesh, a 48-year-old male from PMGP compound, said, "Government is not ready to share all the information about the cases." Gausiya and Mahesh's experience points to communication gaps in the disease control measures implemented in the early days of infection spread.

However, as the pandemic progressed, on 13 September 2020, the government announced the "My Family My Responsibility" program.[21] The goal was to reach every single family in

Mumbai and improve COVID awareness, encouraging families to check the temperature and oxygen level of each family member and note their comorbidities within 40 days.

Meena, a 52-year-old female from PMGP compound, mentioned the poor turnout of residents for the screening camp arranged in their locality, as many were fearful of being quarantined and separated from their families, and had heard about unpleasant experiences in institutional quarantine centers. This shows residents' low trust in state measures of epidemic disease control, which could have been more effective if local leadership and organized groups were involved in the screening methodology and engaged in effective communication strategies. SPARC's federation network often reported that the process would have been more successful had residents been properly educated and informed, and then engaged in the tasks of screening and isolating those who were symptomatic or at risk of being infected.

Dhaka — The COVID-19 Experience among Residents of Informal Slums

> *"There are no deaths in the slums from the virus but they are forcing us to wear masks. They tell us to wash our hands and keep a distance. It is hard to follow all this in the slum we live in. Many of us live together and we have to share water, latrines, and other facilities. Anyways, we don't have corona. No one is dying here, our area is safe… The government only tells us 'do this' and 'do that'… but where were they when we needed food and relief support?"*
> – Sharuk, 20-year-old single male, Ghudaraghat

Sharuk's comments reflect the experience of living in Dhaka slums, which are characterized by overcrowding, poor living conditions, and families comprised of an average of 4.3 members residing in a single 12-square-meter room.[22] Dhaka alone has an estimated seven million people living in 3,394 slums.[23] In such conditions of intense density and poverty, the strategies being promoted by global health bodies are next to impossible to put in practice on the ground. Sharuk's inability to understand why there is a lockdown when the death rate due to the epidemic is so low is a reflection of poor communication and community engagement by the government.

> "*I called all my friends, networks, people I know in the locality, and I started calling my boss, my supervisor, asking about any news as to when the shop*

will open. I also asked them to let me know if there were any other things… anything I could do so I could earn an income. They told me that everything was shut…. My heart sank."

- Kabir, 22-year-old garment showroom worker, looking after his younger brother, grandmother, and wife

Kabir is one among many thousands in Bangladesh who lost their source of income as a result of the lockdown, which included the closure of all public and private educational institutions, offices, and public transportation.[24] Army and police were on the streets to enforce the directive by the government, which meant severe loss of livelihoods on a large scale. Newspapers reported that police threatened low-income people who had to defy lockdown to earn their livelihoods, beating them and enforcing humiliating punishment—for instance, forcing men to do sit-ups while holding their ears.[25] Many people view the police as the enemy, believing them to be corrupt, abusive, and excessively empowered. Crime and insecurity tend to be rampant in slum settlements, and usually the police are paid off, with little recourse to justice for poor residents. An estimated two million workers from the garment sector, 85 percent of whom are women, were at risk of losing their jobs.[26] Kabir explained how he had to bribe the police in order to be allowed to sell clothes and fruit on a street corner when the lockdown was still strict. The government failed to acknowledge this impact on such a large workforce, one that was already living on low wages. Kabir's example also shows that though the decision to restrict movement was to cut disease transmission, the poor were forced to still be on the move to survive.

"*Hardly anyone wants to put their car window down to buy our wares. I returned home defeated and my husband yelled at me for going out to sell during this 'corona time,' as I was pregnant and it was not good for my health. But I wanted to help him. He leaves in the morning in search of work and we have our in-laws. I know he is worried and I worry for him and for our future…we have no one to turn to. Who will help us?"*
– Fatema, 19 years old, a street hawker, married and pregnant

Fatema, then in her second trimester, pushed herself to sell wares on the street when vehicular traffic restarted after the lockdown. Fatema's expression of helplessness and despair points to inadequate safety nets and the absence of any local solidarity. While the control measures principally aimed to control infection and therefore reduce health risks, the actions have pushed the vulnerable into taking significant risks.

As in the cities in India, Dhaka too saw food shortage among residents of informal settlements. In the context of structural and social constraints, the continuation of the lockdown for three months required strong political resolve to support food security, healthcare provision, and access to information. But such support was lacking.

While the government did roll out many measures towards economic and food relief, they were plagued by reports of corruption, mismanagement and politicization.[27] "They take our names but we don't see any food or any money…they are lying to us and then they waste our time taking our information," shared one participant during a group discussion. Locals were frustrated with the food relief distribution process and accused the government, their local leaders, and landlords of pilfering their entitlements.

This experience calls for a careful evaluation of local structures in which involvement of prominent persons from the community may define them as "community-led," but which do not necessarily guarantee equitable distribution of relief. In the research it was found those who were well connected to local leaders and committees could leverage this advantage to get relief materials, and access to health services, quicker than others who had little to no access. This also raises questions around gendered vulnerability, as males and longer-term residents in settlements had wider networks than females and temporary tenants. Those who were younger than 18 years of age did not have the legal right to have NID cards, which allows one to sign up for relief. In addition, new reports in the media suggest that the relief provided by the State was not transparent and beset with complaints of irregularities.[28] Here, the one-size-fits-all approach to COVID-19, framed as a biomedical challenge, has not been informed by voices and perspectives of people living and working in informal settlements. It has therefore not only been inequitable in its impact but is also likely to increase inequalities in the long term.

Vijayawada & Guntur, India — The COVID-19 Experience among Waste-Picking Communities

Access to Food and Other Necessities

> *"We are totally dependent on daily wages and if we don't work, we are in trouble, if we work then we will have food… this is our life. But in this lockdown, we all are forced to stay at home without any work. Our work is mostly waste collecting; due to lockdown all are staying at home without any work.... In this period we are unable to go to the hospital for health issues because we don't have money to consult doctor. If we come outside for the work, we are beaten by the police in our area due to the red zone effect."*[29]
> *– Basava, a waste picker in Vijayawada in his late twenties*

Basava, like other waste pickers, collects and sorts waste, mainly plastic and other recyclables, from the streets of Vijayawada, a city in the southern Indian state of Andhra Pradesh. He needs to walk twenty kilometers on average, a nine-hour journey, to collect enough recyclables to sell to *kabaadi* dealers in the evening and earn enough to buy food for the day.[30] The streets are the workplace for waste pickers, whose ability to move across the city is crucial for their survival. Waste pickers largely belong to scheduled castes (SCs) and scheduled tribes (STs), which are historically marginalized communities, and waste work in India is characterized by the symbolic and practical manifestations of caste, gender, and religion. Waste pickers, who live precarious lives with little to no access to credit, during the lockdown had to deal with a loss in livelihoods, and the consequent difficulties in procuring food. Basava told us,*"rekkaadite kaani dokkaadani,"* which in Telugu translates as "If the wings (limbs) do not move (work), the belly will not move (be filled)."

The Federal and the state government administrations promised food grains and cash transfers for the poor, including waste pickers.[31] However, there was no specific support discussed or delivered for waste pickers that responded to their specific circumstances and needs. For example, no provision of personal protective equipment was offered to waste pickers once movement restrictions ended. Moreover, access to relief promised by the government was uneven, as some of the waste pickers told us that when the lockdown was announced government officials had promised them that every waste picker family would get one thousand rupees (approximately $15). By June 2020, they had not received the promised amount. As Basava noted:

"No, I don't have ration card. I have only aadhaar card. We applied several times for ration card but still we did not get. And we don't have any information on it and are trying to get to get information.... In this lockdown, all are asking ration card for any benefits getting. Ration card is mandatory."

Basava's experience highlights a common problem that the poor, including waste pickers, face on a daily basis to access entitlements given by the government. In order to be able to receive entitlements they are expected to produce multiple means-testing documentation, which denote that they are citizens of the country and are poor. These documents include the ration card, which is needed to collect food grains through the public distribution system, and the *aadhaar* card, which is a domicile certificate.[32] Both of these are dependent on furnishing proof of a formal living address, which many among the waste-picking communities lack. According to key informants, many waste pickers in the Vijayawada site do not have a single government-approved identity card, depriving them of even the most minimal sustenance.

Role of civil society organizations

In Vijayawada, many of the waste pickers we spoke to said that only civil society organizations (CSOs) paid attention to their needs. One organization gave them rice, eggs, and vegetables, and other relief that provided minimum sustenance. "If [the organization] also did not pay any heed to us, my children and I might not have died of coronavirus, but we certainly would have died of hunger," one told us. The food that the government distributed, if at all, was inadequate and often poorly cooked. For instance, the same interviewee explained, on some days the government would only provide food to adults, not children. As a result, parents would pass their portions on to their children and go hungry themselves.

With the government's response being uneven and relief not reaching the needy communities like waste pickers, CSO efforts were concentrated on alleviating hunger. While there was emphasis on infection prevention measures, too, this remained a distant concern for the waste pickers, secondary to hunger and loss of livelihood. CSO efforts in food provision were managed through crowdsourcing funds in addition to repurposing other funds at their disposal. Food relief also took up an inordinate amount of time, which meant that their ability to support preventive and curative needs was limited. The response from CSOs needs to be seen in

conjunction with the uneven outreach of promised relief from the government. The CSOs were mainly responding to gaps in the government's relief for waste-pickers. However, there was no consultation with these communities and only pre-decided types and quantities of food rations that could be given were included as relief. Thus, the state response neither engaged nor co-produced responses with communities.

Limited health system response and accessibility

Effective health system responses, including the kind of open and transparent communication crucial to foster trust, were largely absent in waste-picking communities. For instance, in Vijayawada we were told that no one had come for COVID-19 testing in their communities. Another waste picker in Guntur, whose husband had contracted COVID-19, said that the government hospital had told them to stay at home and "just get medicines." Their insecurities were worsened by instances of discrimination, as they were not allowed to enter lanes between houses in the slums and thereby access water pumps. "It's difficult to get *manchi neelu* (drinking water)," complained one waste-picker named Sujatha. "People wouldn't allow us in the lanes after coronavirus came." While the government emphasized the necessity of physical distancing, handwashing, and wearing of masks in order to contain the spread of the virus, inadequate attention to the conditions in which waste-picking communities lived meant that these communities faced challenges in protecting themselves from the infection and battling hunger at the same time.

Conclusion: Toward Authentic Co-Production in Pandemic Response

Across India and Bangladesh, lockdown took center stage as the main instrument of epidemic control while steps such as testing, tracing, and communication were neglected. The lockdown itself was announced abruptly and imposed without any assessment or acknowledgement of its likely impact on marginalized urban communities. The scale and depth of its impact adversely affected many that were already living in precarity—and threatened to push others into precarity.

In both India and Bangladesh, the chronology of lockdown imposition and the announcement of relief packages points to a belated acknowledgement of people's vulnerabilities. Following an immediate and large-scale relief mobilization on the part of CSOs in India, the National Institution for Transforming India (NITI) Aayog, the Indian National Government's think tank,

announced a directive order, indicating how CSOs could support the government in providing relief to specific population groups, thus acknowledging the lack of capacity of state institutions to do this#Nevertheless, the order was prescriptive in announcing what needed to be done, rather than inviting opportunities for co-production. Further, the government did not provide enough food grains at subsidized prices for the relief effort, limiting the effort's viability. Highly vulnerable groups like the waste pickers in India who did not possess required documentation were excluded from these relief packages, leaving them dependent on acts of charity and thus excluded from recognition as rights-bearing citizens. In Dhaka, policies targeting relief at people defined as "vulnerable groups" by default excluded others or were mismanaged; marginalized people had limited power and opportunities to challenge this. In both countries, community members, concerned citizens and civil society organizations were left to organize relief for the urban poor. To frame this as community participation or co-production would be inappropriate. Community participation does not exist in isolation and is shaped by historic and current flows of information and degrees of power sharing.

Sherry Arnstein's classic work on a "ladder of participation" outlines a continuum from nonparticipation to tokenistic forms to empowered co-production.[34] Our case studies highlight examples of local action which, rather than showing community participation or any forms of empowered "co-production," in fact point to the absence of systems for participation. Describing ad hoc relief efforts as community engagement or co-production carries the danger of not holding the state accountable for its responsibility to provide basic needs. In the absence of processes that are inclusive and sensitive to the lived and diverse realities of marginalized communities, they become inordinately dependent on charitable and philanthropic efforts from concerned citizens or groups. In this context, civil society provision of basic needs necessarily becomes the predominant focus of CSO support, to the exclusion of citizens exercising their rights and demanding accountability of the state for providing entitlements.

What is clear from our findings is that "community engagement" or "community participation" should not be considered a panacea that addresses all the shortcomings in top-down approaches. The most vulnerable and marginalized people in informal settlements are largely invisible, lacking access to power structures, and often not recognized as full citizens. Long-term investments of resources—both human and financial—are required to support community-based organizations to develop structures and systems for participation and representation of the interests of different groups. Only such inclusive and empowered

organizations can enter into participation and co-production with state institutions, premised on recognition of their full rights as citizens and state accountability for these rights. Otherwise, health policies risk romanticizing local-level responses while shifting assumed responsibilities from government to communities. This is not the recipe for resilience to future crises.

Fortunately, the COVID-19 pandemic has given us a few examples of effective epidemic control through community participation. Decentralized participatory governance structures in Kerala, and the community-based primary health care approach in Cuba, both offer positive examples of meaningful co-production. In the case of Cuba, the well-resourced primary healthcare approach in which health providers are deeply embedded within communities was quickly mobilized by the state.[35] In the case of Kerala, analyses have highlighted the importance of the longstanding nature of community groups participating in governance decision making, and the provision of government resources to co-produced solutions.[36] For example, local government provided resources to community kitchens for migrant workers, which were largely run by community volunteers. The need for ad hoc relief work by CSOs in Mumbai, Vijayawada, and Dhaka illustrates the absence of such pre-existing structures and processes.

Forms of community engagement, participation, and co-production in crises are reflections of particular configurations of power, social and political capital, and relationships of trust and distrust. The shifting of power and capital across these groups can only happen gradually. However, in emergency situations like a pandemic, timely action is crucial. If empowerment of citizens is a precursor to their participation in co-production, then, systems and structures for co-production need to be developed over time to allow power to be shared across multi-sectoral, multi-scalar and multi-stakeholder collaborations. Epidemic disease control principles have a scientific basis, but the measures to enact them effectively require that decision-making powers be shared. While it is clear that community engagement and co-production are important in developing and implementing effective pandemic responses, this is not a technical strategy that can be employed on a one-off basis in response to a crisis. Rather, the participation of all in decision-making, acknowledging local adaptation of control measures, and ensuring supply of resources to such control measures are critically important dimensions.

While pandemic responses in informal urban settlements must be locally rooted, however, the consequences of such policies are truly global. In 2018, UNHabitat estimated that those living

in slums represent 29 percent of the global urban population. In India and Bangladesh, the figures are even higher: 35 and 47 percent, respectively.[37] In a world that is rapidly urbanizing, and which remains susceptible to future epidemics, addressing the needs of these populations will prove essential in crafting an effective global response. Epidemic disease control measures need to acknowledge this reality and tailor approaches that accommodate them. The case studies from India and Bangladesh provide evidence of failures of epidemic disease control responses in the context of urban informal people, and call for international policymaking to acknowledge the need to make long-term investments in building participatory action.

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[15] Natwar Parikh Compound is a slum relocation colony in Mumbai with about 5,000 households relocated from slums and pavements to this state-led housing relocation colony. The Prime Minister's Grant Project (PMGP) colony and Lallubhai Compounds are slum relocation colonies with households relocated mainly from slums along the railway lines in Mumbai.
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[29] The "red zone effect" refers to India's division of districts into green, orange and red zones based on risk profiles. Red zones were also called hotspot districts, taking into account the total number of active cases, doubling rate of confirmed cases, extent of testing, and surveillance feedback. A similar system prevailed in Bangladesh, where certain cities and key urban sites were designated as hot spots, even as the lockdown was imposed nationwide.
[30] In India, the *kabaadi* system consists of a network of s*kabaadiwalas* (junk or scrap dealers), itinerant waste collectors, and buyers. The latter collect recyclables from households, such as cardboard, newspapers, glass bottles and plastic, and sell these to scrap dealers at a fixed rate per kilogram, depending upon the composition and valuation of items collected.

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