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Resources for NGOs During the COVID-19 Epidemic*

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Abstract

In the fight against the COVID-19 epidemic the emerging evidence suggests that the front-line NGOs and PCPs are going to be at the forefront of the battle against this disease, and not merely spectators, and need to prepare themselves accordingly.

1 Introduction

Table 1, based on an analysis of the data available thus far, by the Imperial College COVID-19 Response Team, indicates that mortality rates start to climb amongst those infected (the Infection Fatality Ratio) quite steeply after they cross the age of **60**. In table 2 the results for India, based on the Imperial College COVID-19 Response Team’s simulations (as reported in the data-appendix to Walker et al., 2020) are provided (the simulation results all correspond to a *reproduction number* $R_0 = 3$)¹. It is clear from the table that an early and extreme *Social Distancing* strategy (the so called, *Suppression Approach*), with an estimated *Social Distance* measure of 75%, maintained over an extended period of time², at 95% produces the maximum possible reduction in mortality rate from the peak level implied by an unmitigated situation in which no action is taken. A much more moderate level of social distancing and one that is focused on the elderly (referred to as a *Mitigation Approach*), at 41% produces a much lower level of reduction in mortality rate from peak levels when compared to the 95% reduction from peak implied under the *Suppression Approach*, but still represents a significant improvement over the peak mortality rates implied by an unmitigated situation in which no action is taken (given India’s population, each 1% reduction in mortality from peak levels, implies a saving of about 61,000 lives).

It is also important to be aware that doctors from Italy have argued that even for people who need medical attention, the best place to treat them may be at home, in order to prevent further transmission of this highly infectious virus to other patients visiting hospitals (Begley, 2020). “Western health care systems

*Guidance by the government on all these matters are sacrosanct and must be consulted before taking any action. The official website of the Ministry of Health and Family Welfare, Government of India provides the most updated guidance on the disease, for use both by the general public and health care providers (www.mohfw.gov.in). The Ministry has recently issued an informative note on the role of frontline workers in the prevention and management of COVID-19 (MoHFW, 2020), which is also available in Hindi. General guidance from the Government of India on COVID-19 is available here: www.mygov.in/covid-19. Government of India WhatsApp Helpline for the General Public is this: +919013151515.

¹The four potential scenarios considered by the Imperial College COVID-19 Response Team are: (a) an unmitigated epidemic — a scenario in which no action is taken; (b) mitigation including population-level social distancing; (c) mitigation including enhanced social distancing of the elderly – same as (b) for the entire population but with individuals aged **70** years old and above in addition reducing their social contact rates by 60%; and (d) suppression – implementation of wide-scale intensive social distancing (modelled as a 75% reduction in interpersonal contact rates) with the aim to rapidly suppress transmission and minimise near-term cases and deaths.

²“It is important to note that we do not quantify the wider societal and economic impact of such intensive suppression approaches; these are likely to be substantial, nor do we quantify the potentially different societal and economic impact of mitigation strategies. Moreover, for countries lacking the infrastructure capable of implementing technology-led suppression maintenance strategies such as those currently being pursued in Asia, and in the absence of a vaccine or other effective therapy (as well as the possibility of resurgence), careful thought will need to be given to pursuing such strategies in order to avoid a high risk of future health system failure once suppression measures are lifted” (Walker et al., 2020).

have been built around the concept of patient-centered care, but an epidemic requires a change of perspective toward a concept of community-centered care. What we are painfully learning is that we need experts in public health and epidemics, yet this has not been the focus of decision makers at the national, regional, and hospital levels. We lack expertise on epidemic conditions, guiding us to adopt special measures to reduce epidemiologically negative behaviors. For example, we are learning that hospitals might be the main COVID-19 carriers, as they are rapidly populated by infected patients, facilitating transmission to uninfected patients. Patients are transported by our regional system, which also contributes to spreading the disease as its ambulances and personnel rapidly become vectors. Health workers are asymptomatic carriers or sick without surveillance; some might die, including young people, which increases the stress of those on the front line. This disaster could be averted only by massive deployment of outreach services. Pandemic solutions are required for the entire population, not only for hospitals.” (Nacoti et al., 2020).

2 Ideas for Consideration

All this suggests that front-line NGOs and PCPs are going to be at the forefront of the battle against this disease, and not merely spectators, and need to prepare themselves accordingly. Based on the above discussions NGOs may wish to examine the following set of ideas.

2.1 Strict Quarantine for Senior Citizens (Age greater than 60 years)

The household is a key context for COVID-19 transmission and the average size of households that have a resident over the age of 65 years is very high in India. This increases the potential for spread generally, but also specifically to this particularly vulnerable age-group (Walker et al., 2020). Identifying households with senior citizens (≥ 60 years of age) and tagging them for special attention and regular follow-up would be really important for NGOs to do right now (see table 2). Also conferring with the senior citizens and with other members of the household, informing them of the very real risks of the disease, and of the action that they need to take with respect to the senior citizen members of their household is going to be key³. An organization like Noora Health (Noora Health, 2020) can be requested to provide the necessary materials in the relevant language(s) to help with this (Mor, 2020).

2.2 Clear Guidance to Community on Response

It is clear that the best strategy for every single member of the community is to stay at home and practice social distancing both inside and outside the home⁴. If they do go out, upon returning they need to ensure that they change their clothes and thoroughly wash their hands and feet with soap and water (Rubin et al., 2020). Any interaction with the senior citizen has to be minimized and when it does take place it would need to be from a safe distance. Even when any members of the family experience any form of flu-like symptoms they should NOT go out of their home to seek help but take rest at home. If symptoms become severe they need to call their health care provider to ask for guidance on the next steps. An organization like Noora

³A German health-communications-research group’s *COVID-19 Snapshot Monitoring (COSMO)* initiative “found that [*in the German context*], although knowledge was high, important protection behaviours were very low, and risk perceptions were especially low among the elderly” and that “when the motivation was to protect vulnerable others, the willingness to restrict one’s everyday life was even higher” (Betsch, 2020). “This is a very important message. Communicating the social norm is a key strategy in health communication. Such data can improve the outbreak response: knowing that the clear majority of people are restricting themselves to protect others takes away the burdening question of “Am I the only fool who does this?” It can create much-needed solidarity at a time when all may suffer from the non-health-related side effects of the crisis” (Betsch, 2020). Another paper, with an experimental design, similarly found that *in the US context* a “don’t spread it” framing is far more effective than a “don’t get it” one and, interestingly, no less effective than the “don’t get and spread it” framing, suggesting once again that “framing prevention efforts as a public good may be an effective strategy for motivating people to help combat the COVID-19 pandemic” (Jordan et al., 2020).

⁴An important question would be how this is to be done in crowded urban and rural communities. Universal and continuous use of home-made masks (which are changed frequently and washed with soap / detergent and water) combined with a measure in which, wherever feasible, “each household demarcates a room or shelter for high-risk members [where] a carer from the household is isolated with them” (Dahab et al., 2020). External isolation wards are likely to be overwhelmed, unsanitary, and have the added risk of putting carer family members and attending healthcare workers at risk of infection from others in the ward.



Figure 1: Social Distancing at the Village Well (Photo Credit: Ambuja Cement Foundation)

Health (Noora Health, 2020) can be requested to provide the necessary materials in the relevant language(s) to help with this (Mor, 2020).

2.3 Take Stock of Healthcare Infrastructure in the Community

Develop a clear mapping of the entire healthcare infrastructure in the community, including primary care providers, transportation mechanisms, and nearest hospitals so that each member of the community is mapped to a particular primary care provider and the primary care provider is clear on the next steps to be taken. There may also be a need to define the PCP community as widely as possible, including for examples trained nurses, retired doctors, doctors who decided to exit the profession post-marriage, dentists, and formally qualified doctor in Indian Systems of Medicine with at-least a Bachelor's degree in the field (Ayurveda, Unani, and Siddha). They will need to be equipped with at least a minimal amount of equipment, a place to function from, and a working telephone / mobile phone number.

2.4 Protect and Guide Primary Care Providers (PCPs)

Primary care providers are the most important resource at this time. Every effort needs to be made to protect and guide them at this time. This topic is covered in some detail in Mor, 2020.

2.5 Providing Urgent Income Support

There has been a complete lock-down of the country from 25th March to 14th April (<https://pib.gov.in/PressReleaseDetail.aspx?PRID=1608009>). This is likely to impose severe hardships on the community. A carefully targeted cash-transfer program to the bank-accounts of the most vulnerable members of the community will almost certainly be called for at this time, to ensure their survival and well-being.

3 Case Studies

3.1 Ambuja Cement Foundation

Established in 1993, Ambuja Cement Foundation (www.ambujacementfoundation.org) is a grassroots pan-India implementing organisation which help address pressing community problems. Even in the context of the current crisis, the health team of the foundation has been working hard with its multiple stakeholders, to respond strongly and rapidly. For returning-migrants, their village health functionaries are educating returning villagers before gaining access into the villages about recognizing symptoms, techniques to be used while hand washing and social distancing, and in some cases also recommending self-quarantine. For social-distancing, among other things, areas around village wells, shops, and other community areas, have been clearly demarcated with white boxes so that there is no crowding (figure 1). For making Personal Protective Equipment self-help-groups of women from the Rabari tribal community have set up a mechanism to make masks in their



Figure 2: Rabari Mask Maker (Photo Credit: Ambuja Cement Foundation)



Figure 3: Farmer Calling into Jharkhand Mobile Vaani (Photo Credit: Gram Vaani)

own homes (figure 2) and have thus far handed over 20,000 masks to health centers, local police stations, and to individuals and families. In order to enhance community preparedness, their health volunteers are pasting banners and posters with messages on key topics such as personal hygiene, social distancing, and in particular keeping the elderly safe, and working with local health authorities to ensure that the families in their villages have all the relevant emergency numbers. Thus far the foundation has done all this through their field teams and grassroot community-volunteers, but after lock-down is continuing these with these efforts through WhatsApp and other platforms with their 200,000 farmers and 26,000 women in self-help-groups. In addition to all this they are now taking stock of critical health resources in all their local area such as testing, isolation, and treatment centers, in case the need arises, and will be communicating this through WhatsApp and mobile messages, as well as posters, to all their villages. Wherever possible they are also helping to provide urgent income support by ensuring that those without any income are able to get ration-kits and access relevant government social-security schemes. For more information contact Pearl Tiwari (pearl.tiwari@ambujacement.com), Director & CEO, Ambuja Cement Foundation.

3.2 Gram Vaani

Gram Vaani (Gram Vaani, 2020b) is a social technology company incubated out of IIT Delhi. It started in 2009, and using simple technologies and social context to design tools, has been able to impact a number of

communities both within India, as well as around the world (Moitra et al., 2016). Using IVR (Interactive Voice Response) and community radio broadcasting systems, it has set up participatory media networks in 25+ districts in Bihar, Jharkhand, UP, MP, Delhi NCR, and Tamil Nadu, enabling the communities to manage and share voice-based content over mobile phones and the web, with over 2.5 million users (figure 3). In response to the COVID-19 crisis, Gram Vaani has additionally started missed-call based IVR Systems in four states through which users can listen to pre-recorded FAQs and other content that they are producing on a regular basis, so that there is clear guidance to the community on the best response to the crisis; inform them if they would like to consult a health worker thus maintaining the quarantine even while seeking assistance; and report any issue that they might be facing such as problems with food, cash, or medical emergencies, so that they get the urgent economic and medical support that they need (Gram Vaani, 2020a). A network of their partners and volunteers (of the “Mobile Vaani Clubs”) then endeavour to deliver these services either on their own, or wherever possible, in partnership with the local government.

They are exploring adding messages relating to an extended quarantine of the elderly; local production of masks by self-help-groups; washing of masks and handkerchiefs; and instructions such as, those people who are not infected continuing with the practice of sleeping on the terrace/roof as long as the weather permits, limiting the number of caregivers to just one, and the use of separate toilets, for home care of sick people in crowded homes.

The existence of their communication platforms and their civil society response networks, built and nurtured over the years, allows them to quickly reach vulnerable populations that are not connected to the internet, and to learn about their issues by interacting with them on a regular basis, so that both immediate and longer-term solutions can be found to address them. For more information contact Dr Aaditeshwar Seth (aseth@gramvaani.org), Co-founder & Director, Gram Vaani.

4 Conclusion

All available evidence suggests that this is going to be a long and sustained battle against the disease. Winning it will, as the doctors from Italy have argued so forcefully, require the principal response to be at the level of the community and the family, and not at the hospital. NGOs are the closest to the community and will need to get themselves well-prepared right now.

Table 1: Current Global estimates of the severity of cases (Ferguson et al., 2020)

Age-group (years)	% symptomatic cases requiring hospitalisation	% hospitalised cases requiring critical care	Infection Fatality Ratio
0 to 9	0.1%	5.0%	0.002%
10 to 19	0.3%	5.0%	0.006%
20 to 29	1.2%	5.0%	0.03%
30 to 39	3.2%	5.0%	0.08%
40 to 49	4.9%	6.3%	0.15%
50 to 59	10.2%	12.2%	0.60%
60 to 69	16.6%	27.4%	2.2%
70 to 79	24.3%	43.2%	5.1%
80+	27.3%	70.9%	9.3%

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Table 2: Reductions from Peak Levels from Social Distancing Strategies in India (based on Walker et al., 2020)

Strategy	Social Distance	Total Infected	Total Deaths	Total Needing Hospitalization	Total Critical	Peak Hospital Bed Demand	Peak Critical Bed Demand
Unmitigated	Zero	Peak	Peak	Peak	Peak	Peak	Peak
Social distancing whole population	45% ↑	30% ↓	32% ↓	32% ↓	33% ↓		
+Enhanced social distancing of the elderly	44% ↑	30% ↓	41% ↓	36% ↓	40% ↓		
1.6 deaths per 100,000 per week trigger	75% ↑	64% ↓	66% ↓	65% ↓	66% ↓	67% ↓	67% ↓
0.2 deaths per 100,000 per week trigger	75% ↑	94% ↓	95% ↓	95% ↓	95% ↓	96% ↓	95% ↓

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