

FAQ Shielding approach

22 April 2020

1. What is the best timing (i.e. epidemic phase) in which to implement the shielding approach? Is there any transmission scenario (e.g. large/intense community transmission) for which the shielding approach would not be appropriate?

There is a difficult balance to strike here. Very early in the epidemic curve, or before cases occur locally, communities may not have enough information or perception of the threat to engage positively with such an approach. Moreover, it makes sense from an acceptability point of view to limit the duration that people need to be shielded for to the maximum needed. On other hand, if shielding is only rolled out when transmission is very intense, its impact will be limited, insofar as many high-risk individuals will be infected before they have an opportunity to be physically isolated. Another disadvantage of introducing shielding mid-way through an epidemic is that it will be harder to prevent pre-symptomatic but already infectious people from mixing with other shielded people that they may be housed with.

In short, a reasonable timeline for rolling out the shielding approach might be as follows: (i) before transmission really picks up locally, conduct risk communication and community engagement with people, and help them to co-design a shielding solution that works for them; (ii) actually roll out shielding (or advise communities to adopt shielding) as soon as clusters of cases with local transmission occur. ‘Local’ here means a district, a city, or a camp – or perhaps a larger geographic unit if more local data are not reliable.

2. How long the green zone residents should be shielded for? What are the main criteria that would determine the end of the shielding?

This is also a difficult question to provide a general answer for. Clearly, not a day longer than needed. In practice, we can think of the period of shielding as that which would encompass the vast majority of the epidemic curve. What we expect from modelling forecasts is that in urban settings epidemics would probably unfold over approximately 3-4 months; in an overcrowded camp or slum, the curve might happen over a shorter timeframe, say 1-2 months; in rural settings, the epidemic would probably be more diffuse and extended, such that shielding should probably take place for many months. Generally, the concurrent implementation of distancing measures would further extend the epidemic curve, i.e. require shielding for a longer period.

If local modelling predictions are available, one could determine the duration of shielding based on such predictions (e.g. one could discontinue shielding once > 95% of the expected infections are predicted to have occurred). Alternatively, one would have to rely on available surveillance data, whether from COVID-19 testing, serological surveys looking at the frequency of previous exposure to the virus, or incidence of syndromes consistent with COVID-19 (e.g. acute respiratory distress among adults). You’d want to be pretty sure that the epidemic is largely over.

3. In the absence of rapid tests, how to ensure that no COVID-19 cases are introduced in the green zones when they are established?

Vulnerable people should still be encouraged to join shielded housing at any point through the epidemic; however, if transmission is intense, steps should be taken to mitigate the risk that people are introduced into shielded 'green zones' while they are carrying the virus: at a minimum, they should only join other shielded people if they and all their household members are asymptomatic; if locally possible, they should be tested first; and, again only if locally possible, they should initially stay in a separate 'orange zone' (e.g. an individual room, house or group of shelters for newcomers to stay in) for a week, moving to the green zone if they do not develop symptoms during that period.

It's worth noting that high-risk people probably exhibit symptoms in a high majority of cases, so the main risk really is the 1-2 days during which people will be already infectious but not yet symptomatic – hence the importance of making sure everyone being shielded is asymptomatic, as are their household members. It's clearly not a 100% effective mitigation measure, but it would probably considerably reduce the risk of introducing infections into green zones.

It's also important to emphasise that much can be done within green zones to minimise the risk of transmission among shielded people. They should not be overcrowded environments in which people are forced to sleep or live in close quarters; rather, people should be spread out as much as possible, e.g. allocated to individual huts or rooms, or at least different corners of shelters. Water, soap and other supplies to clean and remain clean should also be made available to them, and if anyone has symptoms consistent with COVID-19, they should self-isolate and leave the shielded facility if they test positive.

4. Does the risk of introducing SARS-CoV-2 in green zones outweigh the benefit?

Firstly, it's important to point out that the 'do-nothing' option isn't necessarily any better than shielding in this respect: if a case is introduced into a household, it would generally be quite difficult for unshielded vulnerable people within the household to escape infection – particularly in overcrowded camps or urban settlements, and where households are large.

The harm-benefit ratio in terms of transmission depends on how shielding is implemented. If people can be shielded individually, e.g. in a dedicated hut, then shielding would obviously be superior to no shielding. If people can be shielded in small groups, with effective infection prevention and control (IPC) barriers between the shielded housing and the outside world, and if they're not forced into overcrowded, unsanitary shielded housing, our modelling estimates suggest that the benefit would still comprehensively outweigh the risk. What should be avoided is shielding large groups of people together: if this is the only feasible solution, very stringent IPC provisions, as well as other arrangements discussed in our guidance, would need to be put in place and monitored.

5. What is the difference between green zones and nursing homes? Why would the risk of COVID-19 spread be any different?

Shielding arrangements must absolutely not replicate the nursing home model. There should be no carers or other people coming in and out of shielded housing / 'green zones'. Residents should be helped to care for themselves. If a carer is needed to support people who are particularly frail, that carer should be embedded within the 'green zone', i.e. live within the shielded housing, and not come out. Residents should also be helped to stay within the green zone by bringing food, supplies and routine medical care to them.

6. In case high-risk individuals that would be shielded represent a large proportion of the population, what should be done / how could we prioritise?

See this [paper](#) and attached Excel tool for country-by-country estimates of how many people might benefit from shielding. Note that the estimates are on the high end, as they assume that everyone with a co-morbidity is aware of his/her condition – this is far from the case in most low-income settings. In general, the proportion who need to be shielded is not that high, particularly in settings with young populations.

Prioritising people for shielding is not a good idea: it greatly reduces the potential impact of the intervention, it may introduce inequity, it may be unacceptable to people, and it also requires an administratively heavy, top-down approach that is not consistent with how we believe shielding should happen. Moreover, the scientific basis to determine whom to prioritise is still limited.

If prioritisation or shielding capacity are brought up as concerns, this may suggest that the approach has been designed with insufficient community involvement and empowerment. At its simplest, shielding could be done by communities themselves if they decide to rearrange their housing to make room for isolating their vulnerable loved ones into small groups. It should not be turned into a highly regulated, top-down or even coercive operation, with beneficiaries unable to support themselves and their neighbours.

7. In case there is limited space available (e.g. crowded camp or slums), how should we prioritise the use of space between shielding high-risk individuals and case management?

Here too, the issue of space should not arise if people are empowered and supported to design a solution that works for them. It's about swapping houses (and accepting more overcrowding among low-risk people), not creating more housing or, worse, tented isolation camps. In short, there should be no competition for space between shielding and other interventions.

8. What about the use of masks for the green zone residents? Or the non-residents when interacting with green zone residents?

On this issue, we defer to WHO or country-specific guidance. If masks are deemed effective for reducing transmission outside of healthcare settings, and if the right kind of masks are available to people in sufficient quantities, their use may enhance the effectiveness of shielding. However, masks should not be viewed as a requirement to implement shielding. There are other interventions for lowering person-to-person transmission that are known to work: spacing people out, and improving water and sanitation.

9. In case there is very limited access to water, sanitation and hygiene facilities, how could the IPC measures be enforced within green zones and between green zones and outside / is there an alternative 'light' approach? Is the shielding approach still feasible?

Again, we would suggest that the alternative to shielding (i.e. no shielding) will usually be worse, all else being equal. The lack of WASH services doesn't make shielding useless - physical isolation matters even without good WASH. Generally, whatever water and sanitation is in fact available should be prioritised for shielded communities, in addition to other vulnerable groups whose hygiene matters beyond COVID-19 (children, pregnant women).

One of the most useful COVID-19 interventions that both countries and humanitarian / development actors should be rolling out is to make water, soap and other cleaning supplies more widely available to populations – either through distributions or through subsidies to ensure their partial or complete gratuity.