How can we safely re-open live events?
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Following the recent publication of an analysis from the Events Research Programme on the impact of mass events on Covid-19 prevalence (authored by Jenifer Smith and colleagues at Public Health England and the Department for Business, Energy and Industrial Strategy), in addition to concerns relating to the some 4,700 Covid cases associated with the Boardmasters festival in Cornwall, we consider here how live events can be safely re-opened in the context of the pandemic. Our focus is specifically on large outdoor events since it is generally accepted that outdoor gatherings are safer than indoor gatherings, particularly when the latter are poorly ventilated. However, this does not mean that outdoor events are without risk.

The analysis provided by Smith et al. should be interpreted with caution because only a small proportion of attendees provided full information about their infection test results. Nonetheless, one research finding stands out. That is, while it is difficult to establish a causal relationship between increased infections and most large events, for the Euro2020 football tournament there very clearly was. The final alone led to some 3,500 extra cases – and this is probably an underestimate. Other events (e.g. Wimbledon) were not associated with these high levels of infection. The implication is that it is not mass events in general which produce outbreaks, but rather their specific features which are responsible.

The findings point to two sets of factors which are critical. The first set is logistical. Any event is in fact a series of different events and sites that may produce conditions of transmission. This includes entrances and exits where one may have to queue in close proximity to others, queuing for the toilet, going to get refreshments, watching a performance in a tent at a festival, shouting or singing at sports matches or concerts, as well as sitting or standing outdoors watching the main event.

The second set of factors are cultural. For the different groups who attend different events, there may be different traditions. For instance, in football, it is common to meet at the pub before the game; travel together to the venue in large groups; chant, sing and shout during the game; hug and even kiss strangers when a goal is scored (something that does not happen when a favoured player wins a set at Wimbledon), and so on.

Smith and colleagues draw on their findings to recommend a number of mitigations, including wearing face coverings when travelling and when at the event; minimising crowding in bars and pubs; minimising aerosol exposure related to singing and chanting, reducing the number of people entering events or venues who are potentially infectious; managing the density of crowds in areas such as hospitality and concessions on the concourses, and promoting vaccination amongst attendees (although they are less positive about the preventive role of testing, pointing out that self-administered LFD tests are of little use when there is such a strong disincentive from producing a positive result -- i.e. exclusion from the event).

Drawing on their analysis, and on a previous report we produced in 2020 on reopening live events, we draw the following conclusions regarding policy on mass events:

1. Live events have a range of economic, social, mental and physical health benefits. There is therefore a strong case for allowing them to go ahead. On the other hand, mass events can be a major source of infection transmission and therefore entail major dangers when allowing them to proceed without ensuring proper protections are in place.
2. The focus, therefore, should be on using the scientific evidence concerning the process of transmission in mass events in order to design and mandate interventions that allow mass events to reopen safely.

3. All event organizers should develop a Covid Safety Plan which analyses all the logistical elements of the event, identifies points of transmission risk, and puts appropriate mitigations in place. These plans should be subject to Health and Safety Executive approval as a condition for the event to proceed, and there should be inspection of events to ensure that plans are adhered to.

4. All organizers should develop communication and messaging strategies to address and discourage risky crowd practices. These strategies should be developed with and communicated through groups representing attendees (e.g., fan groups in football) and draw on an understanding of the relevant group cultures to facilitate change. It is important, if they are to be effective, that any proposals are seen as coming from the group and being designed for the group rather than being imposed externally.

5. These interventions should not be limited to what attendees do during the event, but their activities surrounding the event (e.g., travel) and also the activities of non-attendees who gather to watch the event together (e.g., watching games in fanzones and pubs and in the home).

Read our full report on the safe reopening of mass events here.