5 November 2020

SAGE Task and Finish Group
Key Evidence and Advice on Celebrations and Observances during COVID-19

Key Recommendations

- Major celebrations represent a special or unique occasion for participants such that COVID-19 related behavioural norms might be relaxed or suspended. This is highly likely to **precipitate nationwide increases in transmission** particularly when celebrations are also public holidays (High Confidence). Increased transmission is likely to result from more social mixing during celebrations, often involving gatherings beyond habitual networks and across regions, and in larger groups (High Confidence). Multiple periods of relaxations in close succession will have amplified cumulative impacts (High Confidence). The impact of a celebration or observance will depend on the state of the epidemic at the time (High Confidence). Celebrations and observances will have less of an impact on the number of infections if prevalence is low before the event (High Confidence). National guidance for celebrations is the most viable option to minimise transmission and to prevent a large increase in R.
- **Continued adherence to current guidance, particularly individual and household/support bubble-isolation, is crucial** and must be emphasised in the context of celebrations (High Confidence).
- **Celebrations are composed of collections of behaviours** (e.g. visiting with family and friends, sharing food and drink, community gatherings). Focusing on enablers or alternatives to these behaviours, rather than considering each celebration separately, encourages consistency between different events (Medium Confidence). Additionally, observance-specific behaviours need to be seen in the context of the pandemic and the risks they present.
- **Approaches to celebrations vary** with individuals, families and communities adopting different behaviours and emphasising different traditions. Any alternatives must be co-developed. This increases the potential of alternatives to reflect and reinforce shared norms and has positive implications for adherence (Medium to High Confidence)
- The need for minimisation of risks must be balanced by recognition of the social and cultural importance of some aspects of celebrations. **Differential treatments of specific celebrations/observances risks undermining legitimacy, diminishing perception of risk, and engendering resentment** (High Confidence). Interventions will have differential impacts on vulnerable groups and other specific groups like children and those without digital connectivity that must be acknowledged and addressed.
- **Specific, evidence-based guidance on managing transmission risk in the home should be produced to inform those who have visitors in their home during** celebrations and should be ready in time for the end of the stricter 'stay at home' restriction.
- **It should be communicated early that celebrations will need to take place in alternative ways**. This does not necessarily mean cancelling events; some aspects of celebration can still take place, while other elements would change. Clear rationales for restrictions or adaptations must be given by Government to maintain legitimacy and increase the likelihood of adherence (High Confidence).
- Communications should include the clear message that **actions that pose only a low risk at individual level may nevertheless lead to major increases in risk at population level.**

1. Background and Scope

1. Celebrations and observances are a critical part of our national, multicultural, religious and secular ways of life. In their many forms, they help to support the well-being of individuals, families, communities, and faith groups.

2. The risks associated with different celebrations during COVID-19 will depend on the prevalence of infection at any given time. Some national celebratory events and public holidays in winter 2020 will fall just after the end of a set of lockdown restrictions in some parts of the UK, but before the period of maximum winter pressure on the health services.

Objective of this paper

3. This paper focuses on the risks associated with the activities that make up widespread, national celebrations and the potential impact of these events on the epidemic. SAGE has previously considered some of the risks relevant to these activities, particularly those associated with household transmission[1] and mass-national-travel[2] .

4. The objective is to identify potential ways to help minimise the increased nationwide transmission that will occur because of widespread national celebrations. Also considered here are the potential approaches to national celebrations, and their impacts on adherence to guidelines, well-being, and cohesion during the event and in the longer-term after the event. This builds on the advice in the previous SAGE paper "SPI-B - Insights on Celebrations and Observances during COVID-19"[3]. This paper does not cover smaller personal celebrations which occur throughout the year (e.g birthdays, anniversaries) which pose similar, but less concentrated risks.

Approach

5. Celebrations are associated with behaviours and activities that are highly likely to result in increased social contacts and risk of transmission. Some widespread celebrations may result in nationwide or regional transmission, particularly those coinciding with national public holidays. A national effort at the country, community and individual level is required to co-create a position that makes the best trade-offs between increased viral transmission and the cultural and social value of celebrations and observances. Benefits to the overall national position would be significantly increased from all three interventions working together.
    - At the ***Country*** level, the objective would be to minimise the likelihood that celebrations and observances significantly increase transmission and cause a corresponding increase to the reproduction number (R) and prevalence, and thence to hospital admissions and the need for further restrictive interventions.
    - At the ***Community*** level, the objective would be to enable valuable events whilst reducing opportunities for transmission by empowering communities and their local leaders (including faith groups, community champions and networks, neighbourhoods, charities) to co-create alternatives.
    - At the ***Individual*** level, the objective would be to provide individuals with the knowledge, support and culturally tailored tools to empower them to rethink valued behaviours critical to the celebration in manner that minimises risk. This is essential to protect those involved in their own celebrations, but also to reduce the major risks of increased transmission that would accrue from the aggregation of multiple low risk behaviours at an individual level[4].

2. Impacts on pandemic depend on timing, prevalence and aggregate impacts of individual-level behaviours

6. **International evidence suggests some celebrations have led to widespread transmission.** The impact of family returning to Israel for celebration from overseas was highlighted as moving the country from a controlled regime to exponential growth[5]. Studies concluded that even a short lapse in public adherence to restrictions around celebration events can have a dramatic effect. Similarly, the risk associated with particular activities around Eid-Ul-Adha in Pakistan and the need for these to be communicated to the public have been highlighted[6,7].

7. **Some countries have also used public holidays as opportunities for implementing restrictions.** During the early stage of the COVID-19 outbreak in China, the holiday during the Chinese Lunar New Year, during which schools and workplaces are closed, was extended as a method of outbreak control and people were encouraged to stay at home[8,9,10], limiting social contacts to family members and close friends. If treated carefully, encouraging specific behaviours during holidays can slow down the spread of epidemics that are transmitted via social contacts.

Population-level impacts

8. As described in section 1, communication of risks and the impact of individual behaviours is critical. **Activities perceived to have low individual risk can nevertheless result in large impacts at the population-level.**

9. During celebrations, there tends to be a higher degree of social mixing than usual. People gather in larger groups, often having travelled long distances. Significantly, these will not necessarily be extensions of "normal" mixing patterns: individuals will be meeting with multiple households who are not part of their usual routine and with higher levels of intergenerational mixing.

10. Analysis from one SPI-M-O group considered the implications of increased social mixing on household transmission. If all households were to form a bubble with one other household, the number of out-of-bubble contacts would have to reduce to the levels seen in April 2020 (<1 external contact per person) in order to prevent exponential growth[a]. As context, this would be less than half of current non-household (and non-school) contacts, as estimated in September, and less than 10% of such contacts in "normal" circumstances in 2017/18. In the absence of restrictions, it is likely that social mixing during celebrations is higher than this.

11. This mixing of households, often in indoor environments which facilitate viral transmission more in winter, will have network implications. The rewiring of connection networks across the country is hard to predict, but will result in the potential for more extensive transmission chains and linked outbreaks. The increased mixing across generations and potentially also vulnerable groups over the festive period may also lead to disproportionate increases in severe illness and deaths.

12. Many celebrations involve families and households travelling across the country or internationally. If there is regional variation in prevalence, then this has the potential to seed infection from areas of high prevalence to low, and to change the geographical distribution of infection.

[a] This assumes 35% secondary attack rate (SAR) within households, 5% SAR among non-household contacts and a 5 day duration of infectiousness.

National context

13. Celebrations are associated with behaviours and activities that are highly likely to result in increased social contacts and risk of transmission. The precise impact is difficult to predict, and will depend on the relaxations implemented, but may result in a step change in incidence and prevalence.

14. **As such, proposals to relax measures for specific celebrations cannot be viewed in isolation, and must be considered in context.**

15. **In particular, the consequences of such relaxations will depend critically on the trajectory of the epidemic (R and growth rate), background prevalence and incidence, and the extent of regional variation at the point of relaxation. Increasing transmission even for a short period can significantly alter the trajectory of the whole epidemic.** An increase in transmission will have more concerning impacts on hospital admissions and deaths in a scenario of high and uncontrolled transmission nationally, with health services close to capacity, than it would in a scenario of low and controlled prevalence. Interaction with, and adherence to any other measures in place will also be important.

16. In order to enable a period of celebrations, there therefore needs to be the "scope" to accommodate an increase in transmission. The increased transmission from a short period of relaxations can potentially be "compensated" for by implementing sufficiently restrictive measures of sufficient duration before and/or after the event.

17. **Preliminary work from one SPI-M-O group suggests that for each day that measures are relaxed, five days of stringent measures would be required to maintain prevalence**. The less stringent these measures are or the lower adherence is, the longer the "compensatory" action required will be.

18. Changes in social distancing measures do not need to balance immediately. The compensatory restrictions could be implemented before or after the event. However, given the potential for increased inter-generational mixing and the exposure of more vulnerable people, compensating before the increased period is greatly preferable. A period of high transmission during late December will bring forward any rise in infection during January. Quantitative predictions of impact are not possible until nearer the event.

19. To enable more mixing during the festive period than that which is currently achievable, a substantial reduction in prevalence from current levels (4 November 2020) would be required. Quantitative results from modelling will be possible towards the end of November, and will include the impact of recently announced measures in England and devolved nations.

Timing of celebrations

20. It is not evident to SPI-M-O whether spreading out festivities over time or condensing gatherings into, for example, a three-day period would be best to limit transmission, and further work is needed to explore this if required.

21. It is essential that the "package" of festivals and celebrations behaviours over the Winter period are considered collectively, and not as independent events, as multiple periods of relaxations in close succession will have amplified cumulative impacts. For example, allowing greater mixing for beyond a week will potentially enable multiple generations of infection. This is similarly the case for separate events close together, such as Christmas and New Year's Eve: people infected during Christmas festivities will be near peak-infectiousness at New Year.

22. Reduction in prevalence of infection prior to events has disproportionate benefits, as the likelihood of meeting someone infected is much lower. If prevalence is 2%, meeting with 34

others gives a ~50% chance of meeting someone infected; if prevalence is 0.5%, the chance reduces to 16%. Households can significantly reduce their risk of introducing infection into an event by quarantining for 2 weeks. However this raises equity issues as many families would struggle to do this, including front-line workers.

3. Individual and collective behaviours associated with celebrations

23. **COVID-19 restrictions on celebrations and observances should not be based on an all or nothing approach**. Celebrations comprise a series of individual behaviours before, during and after the event, each one of which carries a different level of risk.

24. **Guidance should be provided for managing risk of celebrations, so that individuals and groups can plan for safer practices.** Information should be provided early to help people plan and should include minimising risk associated with celebrations within the home. Paradoxically, and perhaps counter-intuitively, the largest transmission effects at population level may arise among people who only engage in small increases in risk, because they are likely to be more numerous than others engaging in more extreme risk behaviours.

25. It is important to recognise that **some celebration behaviours can still take place** during the Covid-19 pandemic and **alternative behaviours can take place alongside traditional behaviours.** Promoting and supporting positive alternative behaviours may help to reduce the negative emotions and undesirable replacement behaviours that some experience and develop when forced to stop or suppress a behaviour that they value.

26. Co-design of alternative behaviours and communication have the potential to move beyond COVID-19-restricted celebrations towards more inclusive, enabling, and rewarding events rooted in shared celebratory norms (e.g. goodwill to all) on a community, local, and national level.

27. Perception of risk is a major motivational factor in adherence to interventions, and care for others (including empathy and duty of protection) is a key enabler of behaviour change. **Communicating – in a culturally sensitive way – the risk and impact of individual behaviours on community- and population-level transmission enables individuals and groups to assess the risk of their behaviour more accurately** and has the potential to strengthen messages of standing together and protecting each other. These messages may also be stronger during times of increased group identity created around celebrations and observances.

28. If guidance indicates that traditions must be avoided to reduce the risk of spread, clear and compelling reasoning must be given. The absence of this may cause resentment and undermine mitigation measures.

29. Annex 1 describes some behaviours common to multiple celebrations and observances. Some observance-specific practices may require bespoke guidance that can be applied equitably to religious and cultural events across ethnic minority groups[11]. Minimisation of risks needs to be balanced by social and cultural importance of celebrations, and differential impacts on vulnerable groups and other specific groups like children.

4. Considerations for implementing and changing country-level restrictions

30. **Adherence to existing guidance is crucial in the context of celebrations.** The importance of adherence to existing guidance and processes (eg. Self-isolate if you have symptoms) needs to be reinforced in the context of celebrations which are often considered as special or exceptional occasions. Enablers and blockers to adherence for specific groups should be considered.

31. **Differential treatment of specific celebrations/observances risks undermining legitimacy, diminishing perception of risk, and engendering resentment[12].** For example, any messaging/decisions around Christmas needs to be sensitive to and acknowledge what happened earlier in the pandemic when celebrations such as Eid ul Adha were disrupted at short notice due to rising local infections[13]. This has been repeated with the latest national restrictions disrupting Diwali and other religious celebrations in November. In particular, celebration- or observance-amnesties have the potential to increase community tension and decrease social cohesion. Social cohesion could be protected or increased if messaging draws on similarities between faiths.

32. **Amnesties for celebrations and observances also risk discrediting previous guidance and any future guidance**. Guidance that changes overnight may diminish the perception of risk. If guidelines are relaxed for some festivals, some may reason that this can be applied to other celebrations such as birthdays and anniversaries, using the same logic that was applied to the amnesty when associating same level of importance and values on other celebrations.

33. **The effectiveness of enforcement to encourage adherence to interventions is limited, is likely to be significant for only a minority of people groups, and risks being counter-productive[14].** Legitimacy and proportionality are vital and will depend on perception of risk, including transmission and prevalence rates at the time.

34. **Care should be taken to ensure vulnerable and marginalised groups are not disproportionately impacted or excluded.** This could include enabling access to technology to allow them to participate in events that would normally be in person, and community efforts to ensure that cards and food are provided and that no-one is alone. This is especially important for the very elderly or seriously ill – leeway could be considered for people such as this to experience what may be their last major celebration, without extending this consideration across all of society in ways that lead unnecessarily to increased viral transmission.

35. **Specific consideration should be given to the differential impact on specific groups.** This would include **impact on children** from (e.g.) reduced gift-giving and interaction with family members, and children's fears that special events may spread the virus. Responses could include guidance for schools to provide safe celebrations for children and guidance specifically for families. Guidance on the ability of children to interact with others must be clear, and acknowledge and explain different approaches. Consideration should be given to the **additional pressures and responsibilities that fall to women** due to restrictions[15], and when celebrations and observances must be reimagined. National, community, and household co-creation can create opportunities to mitigate these.

36. **Communication should be consistent and conveyed early enough to enable planning.** Individuals and groups are more likely to adhere to restrictions if they are able to plan ahead and are more likely to be able to adapt their plans if they know that changes will be needed in advance. Changes to restrictions and/or likely scenarios should therefore be communicated well in advance.

37. Given growing evidence on the high rates of transmission in some minority ethnic communities, national communications must take account of the principles of communicating to different socio-cultural groups and subgroups of gender and age within them[16].

38. Evidence-based messaging can counter the spread of misleading or inaccurate information and rumours, which are corrosive to communities and can instil fear, make people confused about what actions they should be taking, and erode trust in official messages.

39. **Winter celebrations and public holidays bring large-scale transport risks[17].** Particular consideration must be taken regarding the mass movement of students during university vacations, as this may impact transmission during celebrations that take place during the vacations. Staggering student travel across the UK should be considered[18]. There is a significant risk that the current 'stay at home' restriction in England will shorten the window for people travelling for end of year celebrations, putting additional pressure on the transport network and risking reduced ability for social distancing in public transport. However, DfT survey data suggest that travel plans are changing, with 23% of GB adults expect to visit family and friends they do not live with for Christmas, compared to 51% who would do so in a normal year[b].

References

[1] SPI-B/EMG: MHCLG Housing Impacts Paper (Sep 2020)
[2] SAGE Task & Finish group on Higher Education/Further Education: Principles for Managing SARS-CoV-2 Transmission Associated with Higher Education (Sep 2020)
[3] SPI-B: Insights on Celebrations and Observances during Covid-19 (Oct 2020). Available from the SPI-B Secretariat.
[4] Rose G, 1985. Sick individuals and sick populations. *International Journal of Epidemiology*, Volume 14, Issue 1, pp 32–38, doi: 10.1093/ije/14.1.32
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[11] South Asian Health Foundation: Recommendations on religious festivals during COVID-19 pandemic (Nov 2020). Available from SAGE Secretariat
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[14] SPI-B Policing & Security: Assessing the value of an enforcement-based approach to Covid (Sep 2020). Available from the SPI-B Secretariat.
[15] SPI-B: Insights on Celebrations and Observances during COVID-19 (Oct 2020). Available from the SPI-B Secretariat.
[16] SPI-B: Public Health Messaging for Communities from Different Cultural Backgrounds (Jul 2020)
[17] SAGE Task & Finish group on Higher Education/Further Education: Principles for Managing SARS-CoV-2 Transmission Associated with Higher Education (Sep 2020)
[18] SAGE Task & Finish group on Higher Education/Further Education: Principles for Managing SARS-CoV-2 Transmission Associated with Higher Education (Sep 2020)

[b] Ipsos Mori OFFSEN, 23-24 Sept 2020. n=1,098.

Annex 1

Table 1: Some common behaviours associated with UK celebrations, risk factors, and examples of potential mitigation measures.

Behaviours related to UK celebrations	**Risks** *Additional risks at community-/population-level (italics)*	**Examples of mitigation measures** *Elimination and substitution/alternative behaviours*
Increased local mixing and pressure on retail, including days out, travel to events and shopping for gifts	• Prolonged increased mixing in days and weeks prior to celebratory occasion. For Christmas celebrations this may be compounded by the inability for people to do normal seasonal shopping in November. • Gatherings at events, shopping centres, beauty spots, and other popular venues. • *Additional pressure on retail outlets and personal services (e.g. hairdressing) will increase queuing for long periods.* • *Additional pressure on delivery services and availability of items in a timely manner if activity is moved online.*	• Sending and buying presents online. • Making/crafting gifts and decorations at home. • Families can consider still doing some activities at home. • Physical gatherings at events may be supplemented by remote access.
Increased travel to destinations, including journeys over greater distances	• Travel in private and public transport, potentially between or through areas with different levels of restrictions. • Mixing with other travellers outside of household, in some cases for a prolonged duration. • *Mass travel of large numbers of people on the same day will create additional risks for travellers and transport workers.* • *Mixing between individuals in areas with different prevalence can lead to additional risks for those in lower prevalence areas*	• Visiting with friends and family through video calls or in a socially distanced manner. • Celebrate with local community instead of faraway family and friends. • Support community groups (including financial) to organise safe alternative celebrations particularly for vulnerable groups. • Stagger travel to reduce pressure on transport systems and travel risks.
Overnight stays	• Prolonged mixing with friends and family across a number of days. • Prolonged use of shared facilities, including bathrooms. • Extended duration and proximity to others (e.g. room sharing)[i,ii]. • *Multiple small mixing events with different groups over the course of several days leads to larger risk of transmission*	• Avoid repeated and extended overnight stays. • If possible and circumstances allow, self-quarantine for 2 weeks before and after visit • Maintenance of existing 'bubbles' rather than creation of new ones

[i] SPI-B/EMG: MHCLG Housing Impacts Paper (Sep 2020)
[ii] SPI-B: Evidence Review for MHCLG Housing Impacts Paper (Sep 2020)

Gathering in homes	• Mixing with family and friends, beyond usual contacts and from widely distanced locations • Mixing between generations and at-risk groups • Overcrowding and lack of social distancing between individuals and households • Lack of adequate ventilation • Use of shared facilities • *Multiple small mixing events with different groups over the course of several days leads to larger risk of transmission*	• Share experiences via video calls or other technology, including story-telling, singing, treasure hunts, and opening of gifts[iii]. • Reimagining and enabling activities outdoors but socially distanced, online, or at a later date[iv]. • Where interactions do take place provide clear guidance on mitigation strategies
Sharing food and drink	• Increased transmission on surfaces • Increased face touching and likelihood of hand-mouth transmission	• Share mealtimes remotely over the phone or video call. • Where food and drink is shared in person, provide clear guidance on how to reduce transmission.
Group activities, e.g. exchanging gifts, praying, singing, dancing, hugging	• Reduced social distancing and increased physical contact • 'Loud' activities increasing transmission by aerosols and droplets • Increased transmission on surfaces of gifts as items passed around	• Move 'loud' activities online, outdoors or to large venues with good ventilation. • Design alternative behaviours to replace physical contact • Precautions such as face coverings, distancing and hand hygiene where interactions do take place
Gathering at celebration-specific events, e.g. religious services, workplace celebrations or holiday performances and events	• Mixing with family and friends, beyond usual contacts and from widely distanced locations • Mixing with strangers, with potentially limited space/overcrowding • Workplace celebrations • *Multiple small mixing events with different groups over the course of several days leads to larger risk of transmission*	• Identify ways to move events outside or create new outside events which retain value, e.g. celebration trails and external decorations, lights etc. • Create alternative events at home and in households. • Live stream events and performances, including a wider range of celebrations to cater for different social groups and religious observances. • Consider replacing large workplace celebrations with smaller social distanced activities • Ensure guidance doesn't enable "loopholes" for groups to mix (e.g. celebration is called a "work activity")

[iii] National Foresight and Intelligence Briefing, 2020, p. 23. (Official Sensitive Document)

[iv] SPI-B: Positive strategies for sustaining adherence to infection control behaviours (Oct 2020). Available from the SPI-B Secretariat.