

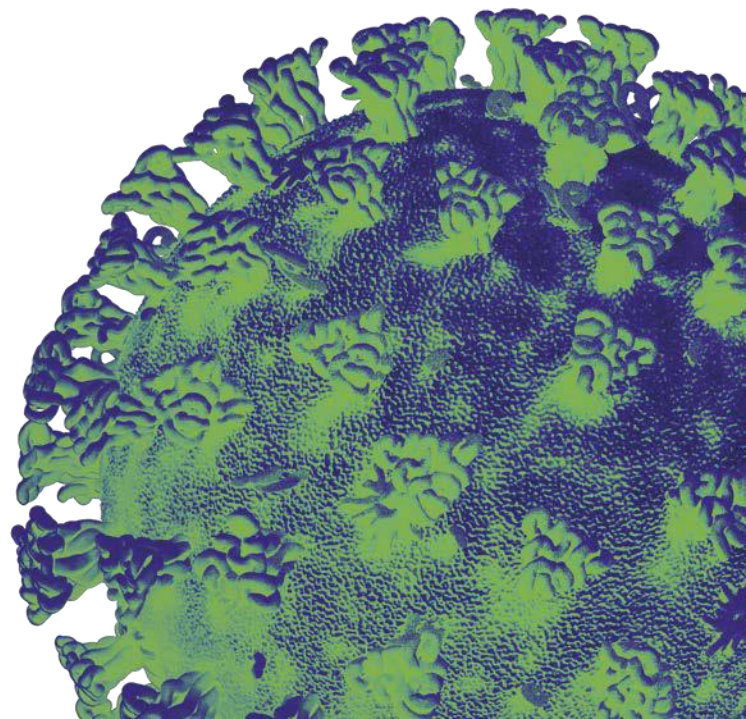
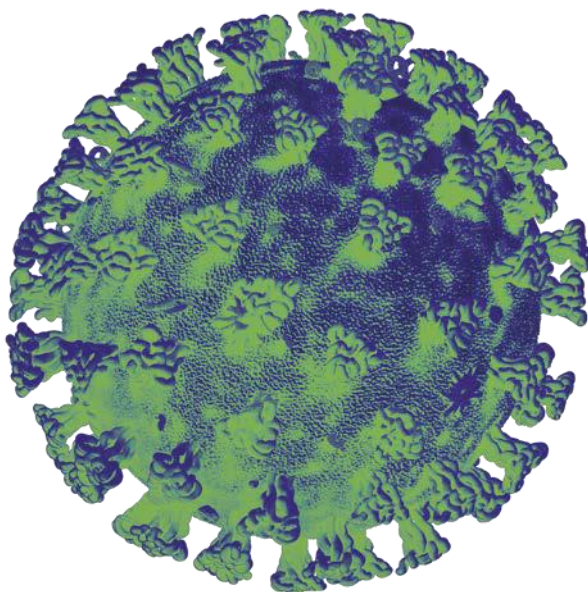
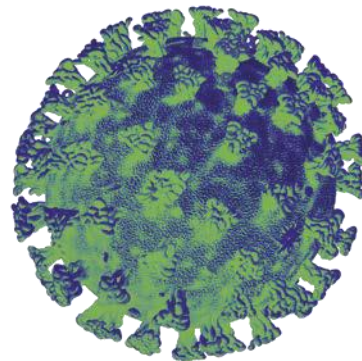


Llywodraeth Cymru
Welsh Government

Technical Advisory Group

Current Evidence Relating to Weddings

12 February 2021



Technical Advisory Group

Environmental Science Subgroup

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It has been highlighted that the concept and activities of a wedding/civil partnership varies in many different faiths, cultures, and personal taste. Marriages and civil partnerships are a vital part of society, uniting couples to start their new life together and affording certain legal rights. This document serves to identify the key environmental risks associated with the events of weddings/civil partnerships and subsequent activities both prior, during and after in the context of COVID-19 before outlining a range of mitigation options.

This statement aims to bring together literature to support a generic view of weddings/civil partnership in two settings; the ceremony and the celebration event, whilst understanding the complexity of different types and names for weddings/civil partnerships.

Fundamentally, it is important to highlight that individuals need to follow current Welsh Government guidelines on behaviour during the COVID-19 pandemic (wash hands etc.). If people have to self-isolate due to COVID-19 symptoms or a positive test, or quarantine because they have been in contact with a confirmed case, then it is essential to do so regardless of the occasion⁶.

Evidence continues to indicate the SARS-CoV-2 can be transmitted by three main routes: close-range respiratory droplets and aerosols, longer range respiratory aerosols, and direct contact with surfaces contaminated with the viral particles^{1,5}. Transmission of SARS-CoV-2 is strongly associated with proximity and duration of contact in indoor environments (high confidence)¹ and the risk increases with duration of contact.

It is recognised that most viral transmission occurs due to prolonged, close interaction with friends and relatives in a familiar and relaxed environment (i.e. in places and situations we perceive to be safe). This may lead to an 'intimacy paradox' whereby a place we think is safe is in fact risky⁶ and so transmission risks are highest when people spend extended periods of time in close proximity to infected individuals⁵. Social interactions indoors increase the risk of infection. The risk is greater with larger events and those which are inter-generational (high confidence)⁵.

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)². There is also good evidence that activities associated with social gatherings and celebrations increase risk, including shared dining and events such as weddings and parties⁵.

The highest risks of transmission, including those from super-spreading events, are

associated with poorly ventilated and crowded indoor settings with increased likelihood of aerosol emission (such as loud singing/speech, aerobic activity) and when no face coverings are worn such as bars, nightclubs, parties/family gatherings, indoor dining, gyms and exercise classes, choirs and churches (high confidence)¹.

The transmission dynamics of COVID-19 are characterised by the propensity for clusters of infections to occur in certain conditions (i.e. as super-spreading events (SSE) where one or few infectors seed many infections)¹. Evidence continues to suggest that super-spreading events may play a very important role in the pandemic/epidemic. Estimates suggest that fewer than 20% of infections lead to approximately 80% of secondary cases⁸. Reducing the likelihood of such SSE is therefore critical in mitigating the transmission of SARS-CoV-2 to manageable levels. It has been noted publicly there have been a number of outbreaks related to weddings in the UK and the world¹²⁻¹⁴.

Whilst it is unclear what, if any mitigations or precautions were in place at the time, Japan, China, South Korea, and Indonesia noted that some of their largest super-spreading events originated in wedding venues¹. However, the largest clusters in Hong Kong were associated with transmission in bars and at a wedding dinner, both locations in which face masks were not worn¹⁰. Close-interaction activities such as religious gathering, and wedding parties contributed most to the spread in Indonesia¹¹.

There are several studies indicating that many infected individuals have a common setting of exposure such as indoor dining⁹. Certain activities also have potential for super-spreading such as singing and loud speaking in an indoor environment⁵ which form a major part of most ceremonies and celebrations. The increase in exhalation of air to increasing loudness/singing results in increased aerosol emission which have the potential to also travel further. SAGE stated that singing, playing of wind instruments, and high-volume speech in presentation and performance settings have been singled out as potentially high-risk activities for transmission of SARS CoV-2¹⁵. Very loud singing and speaking can generate around 20-30 times more aerosol (in terms of total mass) than breathing, quiet singing and speaking (high confidence level)¹⁵. In the context of Weddings/civil partnerships, in many faiths/cultures there is singing/increase of loudness as part of the ceremony and/or celebration event and so represents risk.

SAGE suggested the highest risks of transmission, including those from super-spreading events, are associated with poorly ventilated and crowded indoor settings with increased likelihood of aerosol emission (such as loud singing/speech, aerobic activity)¹. Poor ventilation and crowding have been suggested to be factors in numerous transmission clusters, including those in bars, churches, and night clubs^{3,4}. All three areas have similar features to those at the ceremony and celebration events stage. There is also the impact of alcohol and the potential for risk awareness reduction to be aware of.

Mitigations

The risks posed by social interactions can be reduced through reducing the numbers of people involved; the sizes of their networks; minimising the numbers of overlapping networks (for example through restricting repeated connections to just two or three

household bubbles); reducing the duration of events and interactions; and maximising mitigation measures affecting the individual (washing of hands etc.), physical environment and the types of activities that take place (medium confidence)⁶. SAGE in the run up to Christmas and in the context of a high R rate advised to limit the duration of time spent together, especially if meeting indoors. Indoor interactions should be restricted as much as possible and reserved for short duration quality time⁶.

A summary of individual risks and mitigations which also relate to activities in a wedding/civil partnership can be seen in Annex A of: SAGE EMG: Transmission associated with household interactions⁶.

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