



Department for
Digital, Culture,
Media & Sport

Events Research Programme Phase II

Development of Research Protocols

Research Study Template:



Study Name

Factors associated with self-reported attendee adherence to COVID-19 guidance during the 2021 DCMS Events Research Programme

Event Locations for Study

London Wembley arena (Euro2020 events on the 13th and 18th June) and Castle Donington (music festival from 18-20th June).

Principal Investigator

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Key research question(s)

RQ1: In what ways are clarity of information, perceptions of organisers, and perceived behaviour of ingroup members associated with risk-related behaviour at events held at full capacity, without social distancing, and with entry conditional upon pre-event negative lateral flow tests? This will apply to the music festival at Castle Donington.

RQ2: In what ways are clarity of information, perceptions of organisers, and perceived behaviour of ingroup members associated with self-reported adherence to face mask wearing, hand hygiene, and physical distancing? This will apply to the Wembley events as a continuation of Phase 1 research where physical distancing and wearing of face masks was required.

RQ3: What is the impact of a message about reasons for COVID-19 safety measures and why behaviour is in the interests of the group on adherence to COVID-19 safety measures of physical distancing and mask wearing in spectator seating areas? This will apply to the Wembley events as a continuation of Phase 1 research and will be informative should we return to events with restrictions to mitigate the spread of COVID-19.

The proposed research responds to the SAGE EMG paper commissioned by DCMS 'Scientific framework for opening up group events'. Specifically, the proposed research addresses the priority research question 'which characteristics of events and venues and behaviours likely contribute to most transmission?', with a focus on process via self-report and behavioural measures. The research and interventions will be informed by existing theory from crowd psychology and evidence from pilot sporting events during late summer 2020. The research will focus on identified topics such as

demographic profiles, and physical characteristic of the event, e.g., indoor or outdoor; seated or unseated; entrances and exits; flow of people; physical space separation; and face coverings.

[Link to a published protocol for Phase I \(if relevant\)](#)

<https://www.gov.uk/government/publications/events-research-programme-science/factors-associated-with-attendee-adherence-to-covid-19-guidance-during-the-2021-dcms-events-research-programme>

Study Designs

Research questions 1 and 2

Design: We will use online surveys and individual semi-structured interviews with attendees to understand their experiences of events and factors associated with potentially risky behaviours. RQ2 will specifically focus on reasons impacting adherence to the COVID-19 safety measures. The design for both research questions will involve close collaboration with Movement Strategies to identify risk factors in the observational data and possible reasons for the behaviour from the self-report measures.

Limitations include:

- Self-reported adherence may not be indicative of actual adherence. Phase 1 results indicated that participants may inflate self-reported adherence because they are motivated to support events reopening and/or the Events Research Programme. Thus, comparison of results to observational data will be critical.
- We also anticipate low survey response rates (under 10%) based on data collection from Phase 1 which limits the representativeness of the research.

Research question 3

Design: We will implement a pilot communication intervention to test whether there is evidence that we can encourage adherence to physical distancing and face mask wearing in fan seating areas. We will use an A/B (within-participant) design where rates of adherence to face mask wearing and physical distancing are measured pre and post intervention.

A (first half of match)	Intervention (half time)	B (second half of match)
Self-reported and observed adherence to face mask wearing and physical distancing	Tannoy announcement emphasising public health reasons for the safety measures and why adherence is in the group interest	Self-reported and observed adherence to face mask wearing and physical distancing

The intervention will 1) provide public health reasons for the COVID-19 measures, and 2) emphasise that adherence to the measures is in the group interest (i.e., keeps other fans safe, allows them to support players at live events). The intervention will be an announcement given three times over tannoy during the half time interval. The core measures of effectiveness will be observed levels of adherence to face mask wearing and physical distancing in the fan seating areas (obtained by Movement Strategies). This will be supplemented by self-report measures via surveys and individual

semi-structured interviews to identify whether the announcement was heard and which factors were associated with behaviour.

The pilot intervention will test whether there is initial evidence that public health messaging and group processes can be harnessed to increase adherence. We aim to build on this design for future events in more controlled settings.

Limitations include:

- The results may be impacted by confounding or extraneous variables which substantially limit confidence in the effect of the intervention, e.g., there may be unclear/conflicting information about the measures elsewhere at the event, and there may be more intense periods of the game during one half that encourages spectator chanting or shouting.
- Lack of control over the study conditions, e.g., the loudspeaker announcement will take place in a potentially noisy concourse making it difficult for attendees to hear the announcement, and we cannot control how many people are in the concourse and therefore hear the announcement.
- The announcement will be delivered by the Wembley DJ rather than fan clubs which were identified in Phase 1 as a potentially more influential source of information.

Key outcome measures

We will obtain results of behavioural measures from Movement Strategies, e.g., physical distancing, wearing of face-coverings. This will be compared with our self-report data on public (1) understandings and perceptions of risk, (2) beliefs about transmission, and (3) perceived efficacy of measures, (4) Relationship with organisers/ authorities (5) Fair treatment by organisers/ authorities, (6) Behaviour of 'role models', (7) Meta-perception of norms (for distancing, masks, hand-hygiene).

By combining the self-report data with the observational results from Movement Strategies, this research will provide essential *process* evidence to complement those pilot studies measuring *outcomes* (infection rates before and after events).

NPIs being changed

See study design for RQ3 above.

Engagement with participants and communications

Participants will be recruited for the interviews and online survey via posters at the events and post-event emails to ticketholders. Participants will be required to give informed consent prior to participating in the interviews or online survey, and therefore must be over the age of 18 to participate.

For RQ3, we have agreed the communication plan with Wembley arena who will provide the announcement as part of their event-day announcements.

Peer Review

This protocol was reviewed and approved by the Events Research Programme Science Board on 2nd July 2021.

Ethics Approval

Full independent ethical approval has been obtained by the University of Edinburgh's School of Philosophy, Psychology and Language Sciences ethics committee in accordance with British Psychology Society guidelines (application reference 314-2021/3 approved 12th June 2021). We will observe principles of open science by pre-registering our protocol and proposed analysis plan and uploading the materials and anonymised data to the Open Science Framework.