Technical Advisory Group

Updated Advice on Face Coverings

11 August 2020
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- The possibility of aerosol transmission of SARS-CoV-2 (outside of aerosol generating procedures in healthcare) has recently been formally acknowledged by WHO and hence interest in airborne transmission has increased¹.

- Following further public and policy interest on the use of face coverings, TAG had further discussion on 17 July, 22 July, 31 July and 7 August. In addition, a paper from the SAGE Environmental Modelling Group (EMG) on 23 July and a further rapid evidence review from Health Technology Wales have provided further information for TAG to consider an update to the existing advice.

- New and Emerging Respiratory Virus Threats Advisory Group (NERVTAG) and the Environmental and Modelling group (EMG) have previously recognised the possibility of aerosol transmission of SARS-CoV-2. Aerosol transmission can occur when small respiratory aerosols (<10 µm diameter) containing the virus remain in the air and can be inhaled by another person. This is most likely to happen at close range (within 2 metres) though there is a small amount of evidence that this could happen in an indoor environment more than 2m from an infected person. SARS-CoV-2 is thought to be opportunistically airborne, with a risk of transmission through the air most likely to be within the same room and possibly the immediate neighbouring spaces². Recent analysis of data from the Diamond Princess cruise ship confirms this possibility, albeit recognising the unique built environment of such a vessel³.

- The most recent [EMG/NERVTAG paper](https://www.medrxiv.org/content/10.1101/2020.07.13.20153049v1) suggests that cloth face coverings are likely to have some benefit in reducing the risk of aerosol transmission. Face coverings will reduce the dispersion of respiratory droplets and small aerosols that carry the virus into the air from an infected person. They also provide some protection for the wearer against exposure to droplets but less protection against small aerosols.

- Researchers have speculated that both droplets and aerosols generated from non-violent and violent expirations of SARS-CoV-2-infected people may be responsible for the airborne transmission of COVID-19 disease. However, more research work should be conducted to understand the behaviour of virus-laden droplets and aerosols in different environmental settings, especially confined spaces so that the transmission of COVID19 pandemic in the built environment could be fully ascertained⁴.

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³ [https://www.medrxiv.org/content/10.1101/2020.07.13.20153049v1](https://www.medrxiv.org/content/10.1101/2020.07.13.20153049v1)
⁴ [https://doi.org/10.1016/j.envres.2020.109819](https://doi.org/10.1016/j.envres.2020.109819)
Health Technology Wales have also updated their rapid review from 8 June 2020 of face coverings and this has now been published. The updated summary advises that the effect of face coverings for source control in asymptomatic individuals is less well studied. Retrospective studies suggest their use may reduce COVID-19 transmission, but these findings have very low reliability and did not specify the type of face covering used.

The scope of the HTW review focused on traditional studies/ systematic review evidence. Alongside this, TAG discussed the evidence developing from international experiences of managing COVID-19 in the community, which again is varied, but a number of developed countries have adopted mandatory positions in different settings. Evidence from observational studies and those looking at theoretical mechanisms of exposure were also considered, as was the potential for risk compensation. While studies relating to public health interventions were noted, it was acknowledged there is currently no evidence relating to risk compensation and face coverings.

Face shields/visors are unlikely to be an effective control for aerosol transmission. Face shields provide protection for the wearer against large droplet exposure, including by inoculation through the eyes. However, they are unlikely to provide much protection for the wearer against small aerosols. There is no evidence that face shields/visors are an effective source control for either larger droplets or small aerosols.

There is support from TAG on the wider use of face coverings in certain conditions (such as increasing prevalence of infections in the community or during local outbreaks), also recognising there remain outstanding questions on the balance of benefit and harms.

Some members of TAG are supportive of mandating face coverings in indoor settings (such as shops) as a precautionary measure and to mitigate a perceived relaxation of social distancing and increased mixing of the public, as well as avoidance of asymptomatic transmission.

It is argued that in the absence of scientific consensus and invoking the ‘precautionary principle’, sufficient evidence exists to suggest plausible, if not probable, benefit, and that the downsides are either negligible or improbable.

TAG discussed the benefit of protecting those in high contact professions by the wider wearing of face coverings (e.g. protecting shop workers).

TAG discussed the benefit of mandatory face mask wearing in areas where there is evidence of likely community transmission or where it is difficult to maintain social distancing.

TAG discussed the importance of policy that is tailored to population group and setting in determining potential exclusions (e.g. children and schools).

Public Health Wales report an increase in the use of and acceptability of wearing face coverings from their surveys (corroborated by survey data from Ipsos MORI

5 https://www.bmj.com/content/369/bmj.m1435
and at UK level by ONS).

- Whilst survey data also show high levels of reported adherence to protective behaviours such as social distancing and hand hygiene, TAG discussed the importance of reinforcing the key protective behaviours, notably hand hygiene, avoiding touching the eyes, nose and mouth, appropriate social distancing and isolating/testing if symptomatic.

- There was agreement that face coverings would only form one part of the wider approach to reducing transmission.

- There is a risk that differences between four nations approach to face coverings will lead to confusion and mixed messaging with the public. However, it is recognised that policy decisions are complex, as is the scientific evidence related to face coverings.

**Recommendations**

- It is essential that the introduction of any new policy on the use of face coverings is underpinned by a clear risk communication, including: an emphasis on the critical importance of adhering to existing advice on protective behaviours (i.e. hand hygiene, social distancing and seeking a test/self-isolating if symptomatic) to reduce transmission; that the policy relates specifically to face coverings for use in the community, not personal protective equipment (PPE); how to wear a face covering properly; how to dispose of a face covering safely; the risk of cross-contamination, hence the need for hand hygiene and avoidance of face touching; clarity on the rationale i.e. a public good, part of a collective response to prevent spread to others (and ultimately self); and clear advice on exemptions (e.g. children, those with certain physical and mental health conditions).

- Asymptomatic and pre-symptomatic transmission of SARS-CoV-2 is now known to occur. Thus people without symptoms who are potentially infectious to others may be in public places. For this reason, it is advisable that face coverings should be worn in indoor settings in addition to good ventilation, social distancing and hand hygiene to interrupt transmission. Wearing of face-coverings will be particularly important in indoor environments with poor ventilation or when large numbers of people congregate in order to reduce the risk of super spreading events.

- Mandating face coverings is advised in certain circumstances e.g. in areas where there is evidence of sustained or growing community transmission. In such conditions, simply recommending the wearing of face coverings or making them voluntary is likely to result in less adherence, and so be less effective in preventing transmission. If an approach of mandating face coverings is adopted in areas where there is evidence of sustained transmission then specific thresholds or levels of risk for mandating would need further consideration, with decisions communicated with the public in a transparent manner.

- Consensus was not reached on mandating face masks in indoor settings as has been adopted in England and Scotland. However, there were strong arguments for
mandating face coverings sooner (such as consistency of messaging) and counter-arguments against (such as paucity of scientific evidence).

- Where evidence does not support this requirement or there are other difficulties, exceptions will be necessary. These would likely include children (under 11), those with certain physical and mental health conditions and key settings such as schools\(^6\) (including school transport\(^7\)) and restaurants.

- Additionally, further consideration should be given to face coverings (or face masks) for some people in situations that have characteristics associated with a higher risk (e.g. due to underlying health conditions).

- Messaging should also highlight that advice on the use of face coverings will change with the evolving nature of the pandemic and emerging evidence, as well as being co-produced and tested with the public. Uncertainties in the evidence should be acknowledged, as well as differences in approach between Wales and other parts of the UK, as necessary, so it is clear what is expected of people and why differences exist.

- A range of equity/equality considerations should also be considered, including those with specific needs (e.g. the ability to lip read for those with a hearing impairment and younger children in particular) and those who may be disproportionately disadvantaged financially by having to purchase coverings (e.g. those on lower incomes). There is a need to avoid inequalities generated by our interventions and seek to protect the most vulnerable in society.

- Critically, TAG should continue to review new evidence, and the advice it provides, as it emerges. In addition, the newly formed Risk Communication and Behavioural Insight subgroup should continue to consider the behavioural evidence around face coverings and advise on risk communication as appropriate.

**Settings**

- Policy decisions on recommended or compulsory wearing of face coverings in public (i.e. not PPE) will likely depend on the current state of incidence of COVID-19 and settings where social distancing is not possible, length of stay in environment, settings that are not COVID-19 secure, where there are high contact occupations or where indoor transmission might be deemed more likely.

- Legal advice on consistency of decision making for mask coverings in different settings should be factored into policy discussions.

- To a lesser or greater degree settings could include:

  **Transport**

  - On public transport (including taxis and private hire vehicles) and in stations for everyone older than 11 *(already mandated)*
  - Travelling in a car with someone from a different household

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\(^7\) See separate guidance on school transport prepared by the TAG Children and Education sub-group
Education and workplace
- Further Education and Higher Education settings
- At work, if you cannot keep 2 metres distance from colleagues

Health and social care
- In primary care settings
- In hospitals
- In other care facilities, including community, residential and home settings

Retail and leisure
- In pubs and restaurants, provided you are not at your table
- Customers and staff in hairdressers or beauty salons
- For certain high contact professions, such as market stall operator, waiter, taxi driver etc.
- Occupations that visit the home setting (e.g. plumber, surveyor, cleaner)
- In shops, stores and shopping centres
- In cinemas, theatres, concert halls, conference halls, auditoriums, museums, libraries, casinos and arcades
- In indoor sports facilities (not while exercising), including changing rooms

Other public places
- In places of worship
- Community centres (e.g. where Brownies, Guides, Scouts etc. might meet)
- In the publicly accessible parts of justice buildings (e.g. police stations)

- Public engagement on when and where face coverings should be worn in Wales will help support compliance and avoid conflict (as has been observed elsewhere). This should be co-produced and start as early as possible to prepare people and maximise understanding.

- A public facing structured risk assessment might help people understand the relative risks, as well of the disbenefits, of wearing face coverings in different settings and why masks may or may not be required. Such an assessment might help to identify when masks are no longer required, if mandating them in certain situations has been agreed.