

## **Edinburgh Local Association**

### **FFP2 Masks – Making these available to School Staff**

Current guidelines in Scottish schools mandate the wearing of face coverings. The coverings made available to Edinburgh staff vary in type and quality, with the most common being either cloth face coverings or fluid-resistant surgical masks. Whilst both of these have a role in reducing transmission of the virus, Edinburgh EIS feels that all staff should be provided with the opportunity to wear FFP2 respirators (also known as N95 respirators in the USA), which offer personal protection from infection to the wearer. So far, this option has been denied to staff, except under very specific and unusual circumstances. The following seeks to outline why we feel that this decision should be reversed.

#### **Protection for the wearer**

Many staff want the option to wear FFP2 respirators, as they feel that these respirators will provide them with greater protection against infection. Edinburgh EIS feels that making these masks available to staff will go some way towards enabling CEC to fulfil its duty of care towards staff (as you will know, we are currently in dispute because a very large proportion of our members feel unsafe at work and have stated that this duty of care is not currently being met).

In discussion so far, the stated position of CEC is that:

*the City of Edinburgh Council applies the Health Protection Scotland/  
National Health Service/ Scottish Government advice on such matters.  
This is underpinned by the best clinical science and advice available at this  
time.*

However, when one looks at the Scottish Government's own guidance on reopening schools <https://www.gov.scot/publications/coronavirus-covid19-advisory-sub-group-on-education-and-childrens-issues---advice-on-mitigations-to-minimise-transmission-of-covid-19-during-phased-return-to-in-person-learning/?s=09>, its guidance on face coverings is based on different sources.

The first is the WHO checklist

<https://www.who.int/publications/i/item/9789240017467> which says:

*MoE in collaboration with MoH to issue a national policy on wearing of  
masks in schools (and provision of masks) based on WHO/UNICEF Advice  
on the use of masks for children in the community in the context of  
COVID-19*

And when one goes to this advice

(<https://apps.who.int/iris/handle/10665/333919>) it relates to the use of masks by children, which is not what we are talking about.

The Scottish Government advice also cites advice from the New and Emerging Respiratory Virus Threats Advisory Group (NERVTAG)

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attach\\_data/file/544444.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attach_data/file/544444.pdf)

[tachment\\_data/file/948607/s0995-mitigations-to-reduce-transmission-of-the-new-variant.pdf](#). This document states:

*The effectiveness of face coverings improves with quality of design (multilayer masks are better than single layer), a snugger fit on the face, and correct usage with both nose and mouth covered (high confidence). A better level of mitigation could be achieved through specifying higher performance face coverings and masks, ....*

*This is important even when people are more than 2m apart, as correctly worn face coverings also reduce the emission rate of small aerosols.*

*Highlight added.*

The reference to face coverings reducing emission rates makes it clear that this recommendation is based on reducing *transmission* – a laudable goal, but not the issue we are raising.

Further, the two papers cited by NERVTAG in the paragraph above - B. Cowling and G. Leung, *Eurosurveillance*, 25(49), Dec 2020) and Mitze T, et al. *Proc Natl Acad Sci USA*. 2020;202015954 – both look at the impact of face masks and coverings in reducing transmission. They do not look at how well face coverings and masks protect the wearer from infection.

All the above goes to show that the Scottish Government advice on face coverings in schools is based on ways of reducing virus transmission. We support this. What we are requesting is that, in addition, all staff who want them have access to FFP2 respirators that are demonstrated to reduce infection risks for the wearer – this is a separate issue. The Scottish Government guidance does not preclude offering this protection in this context.

To extend this argument further – school staff are working in situations where many of the mitigations outlined by the Scottish Government are difficult, and sometimes impossible, to fully implement (e.g. 2m distancing, good ventilation). Further, many staff are working in schools where either none, or some, of the pupils are wearing face coverings. These factors combine to mean that many staff have understandable fears about how far transmission rates are being reduced to acceptable levels. They feel that the fact that the Scottish Government gives no consideration in its most recent documentation to discussion of protection for the wearer is a major omission.

There are numerous papers looking at the relative protection offered to wearers by different types of mask. These papers look at different settings, and consider protection from a range of pathogens, not just SARS-CoV-2. Last month, the *LANCET* COVID-19 Commission Task Force Report on Safe Work, Safe School and Safe Travel, which brings together experts who are in a position to evaluate the quality of much research in this area stated that:

While cloth and surgical masks only partially filter respiratory aerosols, higher efficiency masks (e.g., N95s, KF94s, KN95s, FFP2s, or simple modifications to cloth and surgical masks) can reduce the wearer's

exposure by 90-95%, offering the best protection against the spread of COVID-19.

<https://static1.squarespace.com/static/5ef3652ab722df11fcb2ba5d/t/60381fe6acff51132a03173d/1614290919198/Safe+Work%2C+Safe+School%2C+Safe+Travel+%28Feb+2021%29.pdf> (page 8)

*Highlight is mine.*

Thus, we would again ask that CEC protect its staff by making FFP2 respirators one of the ranges of face masks available to them.

### **Necessity for face fitting/training**

A common argument against the use of FFP2 masks in schools is that

*"FFP2 masks also require face fitting/training and regular changing, because of this the use of the PPE could be more risky (within the wrong context), for example too many/too few changes which could increase the infection control risk."*

This would be a more convincing argument, were it not for the fact that precisely the same arguments about poor fit reducing efficacy, and the need for regular changing, apply to cloth face coverings and surgical masks. Numerous recent papers cite the need for much better fitted face coverings – for example:

[Maximizing Fit for Cloth and Medical Procedure Masks to Improve Performance and Reduce SARS-CoV-2 Transmission and Exposure, 2021](https://www.cdc.gov/mmwr/volumes/70/wr/mm7007e1.htm?s_cid=mm7007e1_w) – published by CDC: [https://www.cdc.gov/mmwr/volumes/70/wr/mm7007e1.htm?s\\_cid=mm7007e1\\_w](https://www.cdc.gov/mmwr/volumes/70/wr/mm7007e1.htm?s_cid=mm7007e1_w)

*Cloth masks<sup>s</sup> and medical procedure masks<sup>n</sup> fit more loosely than do respirators (e.g., N95 facepieces). The effectiveness of cloth and medical procedure masks can be improved by ensuring that they are well fitted to the contours of the face to prevent leakage of air around the masks' edges.*

To say that staff cannot have access to FFP2 masks, due to lack of specific fitting, when there has been no effort to look at ways of improving the fit with the already less protective coverings that are in use will strike many as perverse.

It should also be noted that, though it was a small trial, carried out some time ago, this paper:

[A cluster randomized clinical trial comparing fit-tested and non-fit-tested N95 respirators to medical masks to prevent respiratory virus infection in health care workers](https://pubmed.ncbi.nlm.nih.gov/21477136/) - <https://pubmed.ncbi.nlm.nih.gov/21477136/>

which is cited in much current research found:

*[ ].. nonfit-tested N95 respirators were significantly more protective*

*than medical masks against CRI (clinical respiratory illness), but no other outcomes were significant. The rates of all outcomes were higher in the convenience no-mask group compared to the intervention arms.*

*There was no significant difference in outcomes between the N95 arms with and without fit testing.*

*Highlight added*

which at least gives reasons to question the idea that the reduction in protection due to lack of full-fit testing is likely to significantly reduce their benefit for staff. Further, given the extremely high levels of protection conveyed by properly fitted respirators, reductions due to lack of fit testing likely still result in higher protection levels than that conveyed by unfitted face coverings.

### **Use in healthcare settings**

Another argument we have faced is that the use of FFP2 respirators has only been researched in healthcare settings, and thus that they cannot be authorised for use in schools. This is a circular argument. For example, the Centres for Disease Control states explicitly that:

*CDC does not recommend the use of N95 respirators for protection against COVID-19 in non-healthcare settings because N95 respirators should be reserved for health care workers.*

<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/types-of-masks.html>

This is an argument about *supply*, not about protection. Now that FFP2 respirators are widely available, and their use would not impact on supplies to healthcare staff, this argument holds no weight. However, because of this policy, which has been widely followed, most research into non-clinical settings explicitly excludes respirators. The upshot is that members feel trapped in a situation where there is little research into the efficacy of FFP2 respirators in school settings, but FFP2 respirators are being denied to us on the grounds that this specific research is missing.

It would be interesting to see research that indicated what it might be about schools (crowded spaces with often poor ventilation) that means that the protective factors that have been found in healthcare settings do not carry over into schools. In the absence of such research, it lacks scientific credibility to say that respirators that are protective to the wearer in healthcare settings would not offer protection in schools.

Of course, it may be that case that the real reason for restricting the use of FFP2 respirators is that there is insufficient supply – certainly, that is the suspicion that has been raised by many members. If that is the real reason, then I think school staff have the right to know. If supply is not an issue, then the questions put above, as to why these respirators should not be available to staff, stand.

It might also be worth noting some of the points in a recent paper by the Royal College of Nursing (RCN Independent review of guidelines for the prevention and

control of Covid-19 in health care settings in the United Kingdom: evaluation and messages for future infection-related emergency planning (<https://www.rcn.org.uk/professional-development/publications/RCN-Independent-Review-control-of-COVID-19-in-health-care-settings-uk-pub-009-627>).

This paper highlights the limitations of the Rapid Review approach on which most UK guidance is based. It goes on to point out, for example that:

- *Information concerning aerosol-generation resulting from coughing and speech is missing. Key studies indicate that ordinary speech can generate more aerosols than medical procedures such as intubation and suction (Hamilton et al., 2021; Wilson et al., 2020).*

Something that is clearly of concern in educational settings.

The same report also states that:

*Neither the Rapid Review nor the UK guidelines have been appropriately updated to meet the needs of an outbreak situation now progressing into its second year. In particular, the evidence relating to airborne transmission, the ventilation of health care premises and implications for the use of face-protection need to be re-considered and included in UK guidelines.*

## **Supporting compliance**

School staff, in common with most key workers in front-facing roles, need to wear face coverings for very long periods of time. Many staff struggle with this, for obvious reasons. Whilst some people will find that cloth face coverings or fluid resistant masks do not cause them undue problems, and are even preferable to FFP2 respirators, others have reported the opposite. Surely it is reasonable to give staff who are required, by the terms of their employment, to wear masks for hours at a time, a range of options, so that they can choose the mask that suits them best?