Advice on the use of masks[1] in the community setting in Influenza A (H1N1) outbreaks

Interim guidance

3 May 2009

This document provides interim guidance on the use of masks in communities that have reported community-level outbreaks caused by the new Influenza A(H1N1) virus. It will be revised as more data become available.

Background

At present, evidence suggests that the main route of human-to-human transmission of the new Influenza A (H1N1) virus is via respiratory droplets, which are expelled by speaking, sneezing or coughing.

Any person who is in close contact (approximately 1 metre) with someone who has influenza-like symptoms (fever, sneezing, coughing, running nose, chills, muscle ache etc) is at risk of being exposed to potentially infective respiratory droplets.

In health-care settings, studies evaluating measures to reduce the spread of respiratory viruses suggest that the use of masks could reduce the transmission of influenza.[2] Advice on the use of masks in health-care settings is accompanied by information on additional measures that may have impact on its effectiveness, such as training on correct use, regular supplies and proper disposal facilities. In the community, however, the benefits of wearing masks has not been established, especially in open areas, as opposed to enclosed spaces while in close contact with a person with influenza-like symptoms.

Nonetheless, many individuals may wish to wear masks in the home or community setting, particularly if they are in close contact with a person with influenza-like symptoms, for example while providing care to family members. Furthermore, using a mask can enable an individual with influenza-like symptoms to cover their mouth and nose to help contain respiratory droplets, a measure that is part of cough etiquette.

Using a mask incorrectly however, may actually increase the risk of transmission, rather than reduce it. If masks are to be used, this measure should be combined with other general measures to help prevent the human-to-human transmission of influenza, training on the correct use of masks and consideration of cultural and personal values.

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[1] The term "mask" is used here to include home-made or improvised masks, dust masks and surgical masks (sometimes called "medical masks"). Masks have several designs. They are often single use and labelled as either surgical, dental, medical procedure, isolation, dust or laser masks. Masks frequently used outside health-care settings may also be made out of cloth, or paper or similar material. Masks, names and standards differ among countries.

[2] Jefferson T, Foxlee R, Del Mar C et al. Physical interventions to interrupt or reduce the spread of respiratory viruses: systematic review. *BMJ* 2008; 336;77-80.

General advice

It is important to remember that in the community setting the following general measures may be more important than wearing a mask in preventing the spread of influenza.

For individuals who are well:

Maintain distance of at least 1 metre from any individual with influenza-like symptoms, and:

- refrain from touching mouth and nose;
- perform hand hygiene frequently, by washing with soap and water or using an alcohol-based handrub[3], especially if touching the mouth and nose and surfaces that are potentially contaminated;
- reduce as much as possible the time spent in close contact with people who might be ill;
- reduce as much as possible the time spent in crowded settings;
- improve airflow in your living space by opening windows as much as possible.

For individuals with influenza-like symptoms:

- stay at home if you feel unwell and follow the local public health recommendations;
- keep distance from well individuals as much as possible (at least 1 metre);
- cover your mouth and nose when coughing or sneezing, with tissues or other suitable materials, to contain respiratory secretions. Dispose of the material immediately after use or wash it. Clean hands immediately after contact with respiratory secretions!
- improve airflow in your living space by opening windows as much as possible.

If masks are worn, proper use and disposal is essential to ensure they are potentially effective and to avoid any increase in risk of transmission associated with the incorrect use of masks. The following information on correct use of masks derives from the practices in health-care settings[4]:

- place mask carefully to cover **mouth and nose** and tie securely to minimise any gaps between the face and the mask
- while in use, avoid touching the mask
  - whenever you touch a used mask, for example when removing or washing, clean hands by washing with soap and water or using an alcohol-based handrub
- replace masks with a new clean, dry mask as soon as they become damp/humid
- do not re-use single-use masks
  - discard single-use masks after each use and dispose of them immediately upon removing.

Although some alternative barriers to standard medical masks are frequently used (e.g. cloth mask, scarf, paper masks, rags tied over the nose and mouth), there is insufficient information available on their effectiveness. If such alternative barriers are used, they should only be used once or, in the case of cloth masks, should be cleaned thoroughly between each use (i.e. wash with normal household detergent at normal temperature). They should be removed immediately after caring for the ill. Hands should be washed immediately after removal of the mask.

[3] In settings where alcohol-based hand rubs are available and the safety concerns (such as fire hazards and accidental ingestion) are adequately addressed, their proper use (rubbing hands for 20–30 seconds) could be promoted as a means of disinfection.

[4] Infection prevention and control of epidemic- and pandemic-prone acute respiratory diseases in health care WHO Interim Guidelines (Jul 2007) available at http://www.who.int/csr/resources/publications/WHO_CD_EPR_2007_6/en/index.html.