

UPDATE ALERT

Update Alert: Masks for Prevention of Respiratory Virus Infections, Including SARS-CoV-2, in Health Care and Community Settings

This is the first monthly update alert for a living rapid review on the use of masks for prevention of respiratory virus infections, including SARS-CoV-2, in health care and community settings (1). Searches were updated from 2 June 2020 to 2 July 2020, using the same search strategies as the original review. The update searches identified 321 citations. Due to the high volume of literature and to focus on higher-quality evidence, we modified selection criteria for this and future updates by restricting inclusion to peer-reviewed studies. Other inclusion criteria were unchanged. One study on the prevention of SARS-CoV-2 infection in a community setting was added for this update (2).

The original rapid review included 39 studies of mask use for the prevention of viral illness. No studies in the original review assessed the effect of mask use on prevention of SARS-CoV-2 in the community, and 2 observational studies reporting on mask use in health care settings for SARS-CoV-2 prevention had methodological limitations.

The new study added for this update was a retrospective cohort study of 124 households with an index SARS-CoV-2 case and 355 uninfected household contacts (Supplement Table 1) (2). Households in which masks were used by at least 1 family member (including the index case) before the development of symptoms by the index case were associated with decreased risk for incident infections, after adjustment for other hygiene and infection control practices, physical distance to index case, environmental factors, and presence of diarrhea in the index case (adjusted odds ratio, 0.21 [95% CI, 0.06 to 0.79]) (Supplement Table 2). There was no association between mask use after illness onset in the index case and risk for SARS-CoV-2 infections in family members. Masks could be N95 respirators, surgical masks, or cloth face coverings, and the study did not conduct analyses by specific mask type. The study was susceptible to recall bias; in addition, the analysis used households (rather than exposed individuals) as the unit of analysis and did not analyze mask use by the index case

("source control") separately from mask use by household contacts (Supplement Table 3). Therefore, although the new study provides evidence regarding the effectiveness of masks in community settings for prevention of SARS-CoV-2 infection, the strength of evidence is insufficient (Supplement Table 4).

No new studies evaluated the effects of mask use and risk for SARS-CoV-2 infection in health care settings or effects of mask use and risk for SARS-CoV-1 infection, MERS-CoV infection, or influenza or influenza-like illness. There were no new studies on the effectiveness and safety or mask reuse or extended use.

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