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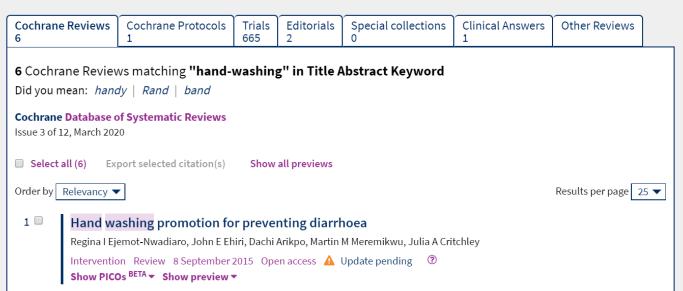
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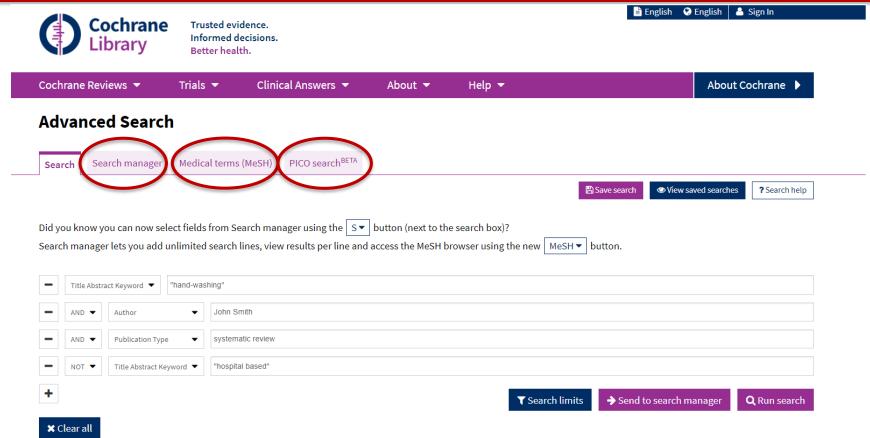






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Title Abstract Keyword ▼ "hand-washing" Q

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to prevent diarrhoea is hand washing.

Objectives

Helene Fuld Health Trust National Institute for Evidence-based Practice in Nursing and Healthcare

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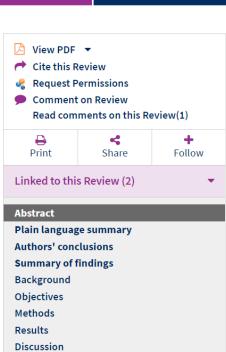
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Plain language summary

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Hand washing promotion for preventing diarrhoea

Review question

This Cochrane Review summarises trials evaluating the effects of promoting hand washing on the incidence of diarrhoea among children and adults in day-care centres, schools, communities, or hospitals. After searching for relevant trials up to 27 May 2015, we included 22 randomized controlled trials conducted in both high-income countries (HICs) and low- and middle-income countries (LMICs). These trials enrolled 69,309 children and 148 adults.

How does hand washing prevent diarrhoea and how might hand washing be promoted

Diarrhoea causes many deaths in children below five years of age, mostly in LMICs. The organisms causing diarrhoea are transmitted from person to person through food and water contaminated with faeces, or through person-to-person contact.

Hand washing after defecation, or after cleaning a baby's bottom, and before preparing and eating food, can therefore reduce the risk of diarrhoea. Hand washing can be promoted through group or individual training on hygiene education, germ-health awareness, use of posters, leaflets, comic books, songs, and drama.

What this review says

Hand washing promotion at child day-care facilities or schools in HICs probably prevents around 30% of diarrhoea episodes (*high quality evidence*), and may prevent a similar proportion in schools in LMICs (*low quality evidence*). Among communities in LMICs hand washing promotion prevents around 28% of diarrhoea episodes (*moderate quality evidence*). In the only hospital-based trial included in this review, hand washing promotion also had important reduction in the mean episodes of diarrhoea (*moderate*)



Authors' conclusions

Implications for practice

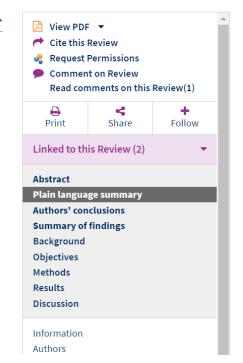
Hand washing promotion leads to reduction in diarrhoea episodes in both child day-care centres in high-income countries and among communities living in LMICs by about 30%. The challenge is to find ways of encouraging people to maintain hand washing habits in the longer term.

Implications for research

The findings of this Cochrane Review show that further research to determine the efficacy of hand washing intervention in preventing diarrhoea will be unnecessary in child day-care centres in high-income countries and in communities in LMICs, although only one trial was conducted in Africa.

More trials conducted in child day-care centres or schools in LMICs are needed to enhance our ability to generalize the intervention effects. The need to conduct research that is of longer follow-up duration and uses a structured method of assessing the primary outcome is pertinent, since it has been observed that arbitrary use of methods may have significant effect on precision of estimates. Outcome assessors should be blinded so as to reduce the bias in estimates of effect size.

Evidence of hand washing on diarrhoea incidence in hospital based settings is still limited as we only found one trial that met the inclusion criteria. Therefore, further research in this area would be warranted.



Summary of findings View PDF ▼ Cite this Review Summary of findings for the main comparison. Summary of findings table 1 Open in table viewer Request Permissions Comment on Review Hand washing at child day-care centres and schools compared to no intervention Read comments on this Review(1) Patient or population: Children 4 Settings: Child day-care centres or schools Print Share Follow Intervention: Hand washing promotion (± provision of hand washing materials) Comparison: No intervention Linked to this Review (2) Quality of the **Outcomes** Illustrative comparative risks* (95% CI) Relative No. of **Abstract** participants evidence effect Plain language summary Assumed risk Corresponding risk (95% CI) (trials) (GRADE) **Authors' conclusions** No intervention Hand washing promotion Summary of findings Background **Episodes of** High income countries Rate ratio 4664 **@@@@** high^{1,2,3,4,5} diarrhoea 0.70 (9 trials) Objectives 4 episodes per 100 children per 2 episodes per 100 children per (0.58 to 0.85) Methods vear year Results (2 to 3) Discussion Low- or middle-income countries Rate ratio 45,380 $\Theta\Theta\Theta\Theta$ low^{6,7,8} 0.66 (2 trials) Information 22 episodes per 100 children 15 episodes per 100 children (0.43 to 0.99) Authors per year per year History (9 to 22) Keywords Hand washing Not pooled 1845 0000 $low^{9,10,11}$ behaviour (3 trials) Translation notes The basis for the assumed risk is provided in footnotes. The corresponding risk (and its 95% CI) is based on the assumed risk in the comparison group and References the relative effect of the intervention (and its 95% CI). Characteristics of studies CI: confidence interval; RR: risk ratio. Data and analyses



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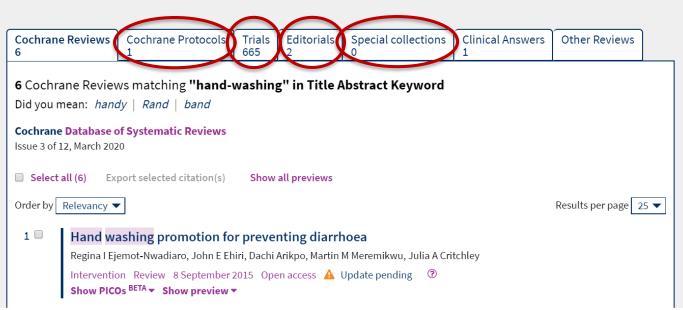
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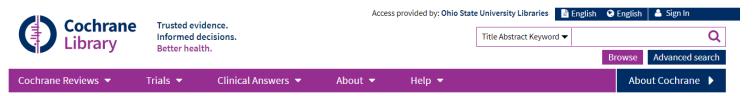
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This Special Collection is one of two collections on COVID-19, and it focuses on infection control and prevention measures. See also the companion Special Collection: Coronavirus (COVID-19): evidence relevant to critical care.

The 2019 Coronavirus outbreak (COVID-19) was declared a global Public Health Emergency by the World Health Organization (WHO) on 30th January 2020.

In order to ensure immediate access to Cochrane Reviews of potential relevance, this Cochrane Library Special Collection assembles Cochrane Reviews identified as most directly relevant to the prevention of infection. It includes reviews that evaluate the effects of interventions referenced in the **WHO**

interim guidance of for the 2019 coronavirus outbreak (28 January 2020), as well as other potentially relevant reviews from three Cochrane Networks: Cochrane Public Health and Health Systems of Cochrane Musculoskeletal, Oral, Skin and Sensory of and Cochrane Acute and Emergency Care of Many reviews in this collection have associated Cochrane Clinical Answers (CCAs), with links provided.

This Special Collection will be updated to ensure it remains applicable as the situation changes, and as WHO guidance evolves. It will also draw on the knowledge of Cochrane groups in affected regions.

The different natures of pathogens and their modes of transmission compared with what is currently known about COVID-19 may limit the applicability of the evidence summarized in these reviews. Please note that the reviews included in this Special Collection summarize evidence, and their inclusion does not mean that the interventions reviewed have been shown to be an effective prevention measure.

(Updated 10 March 2020: removed CCA from 'Personal protective equipment for preventing highly infectious diseases due to exposure to contaminated body fluids in healthcare staff')



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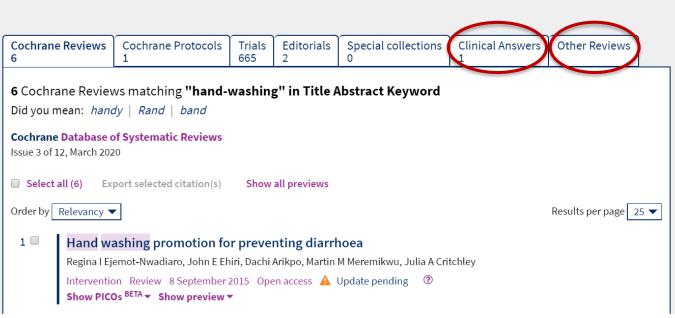
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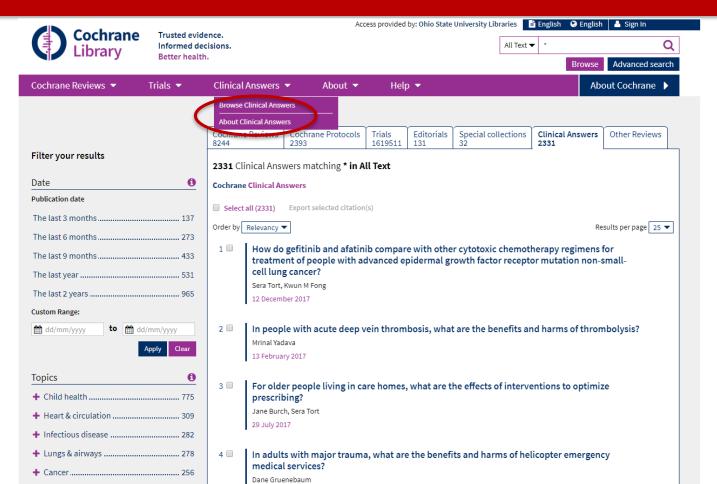


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in low/middle income countries similar effects (15 versus 22 per 100 children developed diarrhea). A similar result was seen when handwashing promotion in community settings was compared with no promotion (2 versus 3 per 100 children [moderate-quality

evidence]). The components of the handwashing promotion interventions varied across studies, including group meetings/training, posters, handouts, provision of facilities, instruction health professionals, demonstrations and videos.





Plain Language Summaries

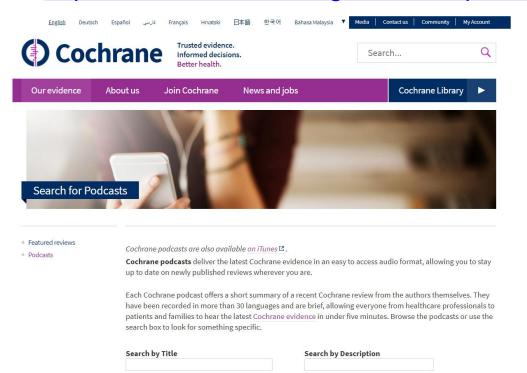
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https://www.cochranelibrary.com/cdsr/journal-club to sign up.

List of journal clubs from the Schizophrenia Review Group:

https://schizophrenia.cochrane.org/journal-club



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Thank you! Comments or Questions?

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