

2023

Staying Healthy: Preventing infectious diseases in early childhood education and care services

TECHNICAL AND ADMINISTRATIVE REPORT

PREPARED BY BIOTEXT AND ONHMRC

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Staying Healthy technical report

The Staying Healthy project

Infections can be common in early childhood education and care services. *Staying Healthy - Preventing infectious diseases in early childhood education and care services* (Staying Healthy) is a best-practice tool that provides educators and other staff working in education and care services with simple and effective methods for minimising the spread of disease. It provides advice on infection prevention and control practice and what to do in the presence of specific infections.

The 5th edition of the guidelines was published in 2012. In 2022, the NHMRC commenced revision and update of the guidelines to provide clear, up-to-date information for early childhood and care services and parents. The Staying Healthy Advisory Committee (SHAC) was established and began operations in April 2022 (see the *Staying Healthy administrative report*). The project is anticipated to be a 2-year process, with the updated version expected to be released in 2024.

Guideline development

The Staying Healthy guidelines were updated following the NHMRC guideline development process, as described in the NHMRC [Guidelines for guidelines](#). It has involved a rigorous process designed to ensure that the guidelines meet the NHMRC [standards for guidelines](#):

- Standard 1 - Be relevant and useful for decision making
- Standard 2 - Be transparent
- Standard 3 - Be overseen by a guideline development group
- Standard 4 - Identify and manage conflicts of interest
- Standard 5 - Be focused on health and related outcomes
- Standard 6 - Be evidence informed
- Standard 7 - Make actionable recommendations
- Standard 8- Be up-to-date
- Standard 9 - Be accessible.

Project stages

The project involves several stages:

- input from users through a targeted survey
- evidence and information review by SHAC and external analysts
- drafting and editing of the guidelines by SHAC and external content experts, including
 - reviewing 5th edition content
 - identifying gaps, out-of-date and unclear content
 - creating new content and fact sheets
 - updating and clarifying existing content
 - aligning with Infection Control Guidelines and Series of National Guidelines (SONGs)

- producing the public consultation draft
- public consultation
- reviewing public consultation comments and redrafting
- post public consultation draft
- approval of the final draft by the NHMRC
- final development of the guidelines for placement on the NHMRC website and as a PDF.

Evidence review

Summary of systematic review process

SHAC reviewed the 5th edition of the guidelines and identified the key questions that required an evidence review. HTAnalysts were contracted to conduct a systematic review of the evidence for 2 topics:

- The effectiveness of exclusion measures in preventing the spread of infectious diseases
- The effectiveness of various non-pharmaceutical interventions for reducing the risk of transmission of respiratory infection in early childhood education and care settings.

SHAC reviewed and approved the search strategy and questions before HTAnalysts carried out the search. The following 4 items are sections in the 436-page PDF from HTAnalysts, supplied with the meeting papers for the 14 February 2023 meeting:

- A systematic review of exclusion measures in preventing the spread of infectious diseases in education and care settings - evaluation report
- A systematic review of exclusion measures in preventing the spread of infectious diseases in education and care settings - appendices
- A systematic review of non-pharmaceutical interventions for reducing the risk of transmission of respiratory infection in early childhood education and care settings - evaluation report
- A systematic review of non-pharmaceutical interventions for reducing the risk of transmission of respiratory infection in early childhood education and care settings - appendices.

The reports contain information on the search strategy, methods and results. These reports were published during the public consultation period for stakeholders to read and comment on the evidence review methods and findings.

SHAC used the evidence summaries and appraisals in these reports when developing the evidence to decision tables and recommendations.

Additional review

SHAC and associated working groups reviewed the 5th edition to identify areas where the information and guidance was out of date.

Biotext were contracted to provide input into the presentation of the content to ensure it met audience needs. SHAC, the working groups and Biotext also

reviewed the 5th edition to identify areas where the existing guidance was unclear or incomplete.

Revised and new content was developed by SHAC and the working groups, in consultation with and edited by Biotext, before public consultation.

Developing recommendations - evidence to decision process

Evidence to decision tables

Evidence to decision (EtD) is a framework for using evidence to inform guideline development. It refers to the process of appraising and synthesizing available evidence, balancing benefits and harms of different interventions, considering values and preferences of patients and stakeholders, and making recommendations based on the best available evidence. The goal of the EtD framework is to ensure that guidelines are based on the most current, accurate, and relevant evidence, and are transparent and trustworthy.

The EtD framework involves several steps:

1. Identifying the question and scope of the guideline
2. Conducting a systematic literature review to identify all relevant evidence
3. Appraising the quality and relevance of the evidence
4. Synthesizing the evidence to determine the balance of benefits and harms
5. Incorporating values and preferences into the decision-making process
6. Making recommendations based on the best available evidence
7. Monitoring and updating the guidelines as new evidence emerges.

The SHAC met to make judgements on the criterion listed in the EtD tables and also used comments from working group discussions to develop recommendations.

EtD Hand Hygiene

Recommendation:
 All educators and other staff and children should perform hand hygiene regularly.

Criterion	Description	Judgement
<p>Certainty of the evidence</p>	<p>What is the overall certainty/ quality of the evidence?</p>	<p>A scoping review and systematic reviews of the evidence were conducted by HTAnalysts to establish an evidence base to inform the 6th Edition of Staying Healthy. The objective of the systematic reviews was to evaluate the effectiveness of non-pharmaceutical interventions and exclusion measures in reducing the spread of infectious diseases in education and childcare settings.</p> <p>HTAnalysts found four systematic reviews that met the inclusion criteria based on the overlap of the primary studies and information included in each systematic review. The systematic reviews from Jefferson 2020, Abdullahi 2020, Xiao 2020 and Munn 2020 reviewed hand hygiene as an intervention to reduce the risk of transmission of respiratory infection.</p> <p>The quality of the evidence included in these systematic reviews varied across the critical outcomes. GRADE rates the type of epidemiological evidence typical of broad public health exposures as low to very low; hence, the certainty in the overall evidence was rated as very low. Higher 'quality' study designs that are more typical for clinical practice guidelines - such as randomised control trials - are not appropriate for most public health interventions. Therefore, hand hygiene interventions are poorly studied in early education and care settings. But there is a considerable number of studies on hand hygiene in healthcare settings with a higher certainty of evidence.</p> <p>The committee concluded that it is the absence of evidence for hand hygiene in early education and care settings, particularly in young children, that has resulted in the low certainty of evidence rating. The committee agreed that scientific studies are only one part of the supporting rationale for this recommendation, there is a strong rationale for the effectiveness of hand hygiene in early education and care settings, so hand hygiene is strongly recommended.</p>

Benefits and harms	How substantial are the harms and benefits of hand washing?	<p>The committee discussed potential benefits and harms of this recommendation. Benefits include reduced spread of infection and reduced absenteeism of children and educators and other staff. Benefits also include maintaining health of educators and other staff and children.</p> <p>Potential harms include adverse skin reactions to soap caused by frequent washing. Potential harms related to skin reactions largely affect educators and other staff due to high frequency of performing hand hygiene and are less likely in children.</p>
Preference and values	Is there variation in how much value people (including their parents or carers) place on the desirable and undesirable effects of hand washing?	<p>The committee agreed that rinse free hand wash such as alcohol-based hand rub is preferred by some groups.</p> <p>The committee discussed the preference to use alcohol-based hand rub instead of hand washing and agreed that people who experience the undesirable effects of hand washing such as adverse skin reactions may prefer to use alcohol-based hand rub. The committee noted that the guidelines clearly recommend hand washing with soap and water and drying with paper towel instead of using alcohol-based hand rub in particular situations, which they considered when developing the recommendation. The committee also noted that the use of disposable gloves is encouraged but does not replace hand hygiene.</p>
Equity	What would be the impact on health equity if hand hygiene is recommended?	<p>The committee expected that health equity would be increased if this recommendation was implemented. The recommendation should not create new health inequities or worsen any current inequities.</p>
Acceptability	Would recommending no hand washing in order to minimise harm be acceptable to educators and	<p>The committee agreed that recommending no hand washing would not be acceptable in early education and care settings.</p> <p>The committee noted that the recommendation is consistent with the information in the 5th Edition of the guidelines, so it is expected that it will be generally acceptable to educators and other staff and children and their families.</p>

	other staff and children?	The committee considered changes in hand hygiene practices following the Covid-19 pandemic. They noted that post Covid-19, there is greater familiarity with hand hygiene practices in the community and hand hygiene practices are widely accepted in all settings.
Feasibility	Is the option realistic and practical (feasible) to implement?	<p>The committee agreed that this recommendation is feasible to implement as all early education and care services have hand washing facilities available that are separate from food preparation facilities. The committee noted that the building code for education and care services requires hand washing facilities to be provided.</p> <p>The committee also noted that it is considered common practice that educators and other staff and children perform hand hygiene regularly, including before meal and snack times.</p>
Resources and other considerations	Does this proposed recommendation have resource implications (costs)?	<p>The committee considered resource implications for this recommendation and agree that there are some cost and time implications.</p> <p>The committee considered the cost of providing soap products, alcohol-based hand rub and paper towel for drying hands and agreed that these costs are accepted in early education and care settings as necessary costs.</p> <p>The committee noted that some services may provide mandatory hand hygiene training which can incur a time impost to educators and other staff and cost implications to the service.</p> <p>The committee also considered the cost of displaying hanging hand hygiene resources such as posters at all hand washing facilities and in service teaching spaces. The committee noted that updating of education materials for educators and other staff and children may also have cost implications.</p>
Environmental sustainability	Does the proposed recommendation have potential environmental impacts?	The committee discussed potential environmental concerns associated with this recommendation. They considered concerns raised by stakeholders relating to waste produced from using paper towels to dry hands after washing. The committee agreed that services may choose to use hand towels as an alternative however they should be washed and dried after each use.

		The committee also considered the use of alcohol-based hand rub as an alternative to soap and water in some circumstances, which can help reduce waste production.
Rationale for recommendation	Why did the committee develop this recommendation?	The committee acknowledged that hand hygiene interventions are poorly studied in early education and care settings and agreed that scientific studies are only one part of the supporting rationale for this recommendation. The committee agreed that this recommendation is reflective of current accepted practice in education and care services.

EtD Nappy Changing

Recommendation:
Infection control principles should be used when children's nappies are changed.

Criterion	Description	Judgement
Certainty of the Evidence	What is the overall certainty/ quality of the evidence?	<p>A scoping review and systematic reviews of the evidence were conducted by HTAnalysts to establish an evidence base to inform the 6th Edition of Staying Healthy. The objective of the systematic reviews was to evaluate the effectiveness of non-pharmaceutical interventions and exclusion measures in reducing the spread of infectious diseases in education and childcare settings. The reviews did not include any studies on nappy changing practices in education and care services.</p> <p>HTAnalysts found four systematic reviews that met the inclusion criteria based on the overlap of the primary studies and information included in each systematic review. The systematic reviews from Jefferson 2020, Abdullahi 2020, Xiao 2020 and Munn 2020 reviewed hand hygiene as an intervention to reduce the risk of transmission of respiratory infection.</p>
Benefits and harms	How substantial are the harms and benefits of applying infection control principles when changing nappies?	<p>The committee considered the benefits and harms of regular nappy changing including following infection control principles. The committee accepted that changing a nappy regularly can limit the time urine and faeces are in contact with the skin. This may also reduce the risk of body fluids leaking from nappies and coming into contact with other people.</p> <p>The committee noted that performing hand hygiene and disinfecting surfaces are important steps in the nappy changing procedure. A major route for transmission of infection is through contaminated hands and surfaces and the benefits of hand hygiene and regular infection control clearly outweigh any undesirable effects.</p> <p>The committee acknowledged that very regular handwashing and the use of gloves can increase the risk of skin irritation and dry/cracked skin and possible allergies from glove use. While noting this harm may cause a level of discomfort to some people, the committee agreed that the benefits outweighed any potential harms.</p>

<p>Preferences and values</p>	<p>Is there variation in how much value people (including their parents or carers) place on the desirable and undesirable effects of applying infection control principles when changing nappies?</p>	<p>The committee considered the preferences and values of stakeholders when developing this recommendation. The committee did not expect significant variability in how much people value the desirable and undesirable effects of changing nappies using infection control principles.</p>
<p>Equity</p>	<p>What would be the impact on health equity if applying infection control principles when changing nappies is recommended?</p>	<p>The committee does not anticipate that access to nappies, wipes, hand hygiene products (soap and alcohol-based hand rub) and appropriate cleaning products is likely to be an issue.</p>
<p>Acceptability</p>	<p>Would recommending not following infection control principles when changing nappies to minimise harm be acceptable to educators and</p>	<p>The committee considered the acceptability of recommending that regular nappy changing using infection control principles should not occur and agreed that it would not be acceptable in early education and care settings. The committee accepted that regular nappy changing, in accordance with procedures outlined in the guideline, is a long-standing practice in services.</p>

	other staff and children?	
Feasibility	Is the option realistic and practical (feasible) to implement?	The committee considered the feasibility of implementing this recommendation and agreed that this practice is feasible to achieve so long as adequate and appropriate hygienic facilities are available and accessible. Some centres may have constraints on the design of their nappy change stations (such as placement of taps) but services should ensure that the steps outlined to changing a nappy can be carried out safely.
Resources and other considerations	Does this proposed recommendation have resource implications (costs)?	<p>The committee acknowledged that nappies are an essential item in education and care services. It understands that some services require disposable nappies to be provided by parents and carers whilst other services provide nappies as part of the fee structure. There are also additional materials needed to change nappies including gloves and wipes.</p> <p>The committee acknowledged there are costs associated with changing nappies and maintaining a clean nappy changing area and emphasises that the essential nature of the items means that these costs are acceptable.</p>
Environmental sustainability	Does the proposed recommendation have potential environmental impacts?	The committee is aware that environmental sustainability was highlighted as a priority area by some stakeholders during the public consultation on the 5th edition. The committee acknowledged the waste associated with nappy changing, which produces disposable nappy, disposal wipe, paper towel and disposable glove waste. When reviewing the nappy changing procedures, the committee looked for areas where the procedure could be refined to reduce waste. Furthermore, the committee emphasised that services need to have processes in place to support parents and carers preferences for reusable nappies.
Rationale for recommendation	Why did the committee develop this recommendation?	The committee acknowledged that nappy changing interventions are poorly studied in early education and care settings and agreed that scientific studies are only one part of the supporting rationale for this recommendation. The committee is aware that services have established procedures to support the regular changing of nappies while following infection control principles. The committee agreed that this recommendation is reflective of current accepted practice in education and care services.

EtD Routine Cleaning

Recommendation:
 Routine environmental cleaning should be performed daily and when surfaces are visibly soiled.

Criterion	Description	Judgement
<p>Certainty of the evidence</p>	<p>What is the overall certainty/ quality of the evidence?</p>	<p>A scoping review and systematic reviews of the evidence were conducted by HTAnalysts to establish an evidence base to inform the 6th Edition of Staying Healthy. The objective of the systematic reviews was to evaluate the effectiveness of non-pharmaceutical interventions and exclusion measures in reducing the spread of infectious diseases in education and childcare settings.</p> <p>HTAnalysts found two systematic reviews that met the inclusion criteria for environmental cleaning. Jefferson 2020 and Xiao 2020 reviewed environmental cleaning as an intervention to reduce the risk of transmission of respiratory infection. The committee noted that routine environmental cleaning interventions are poorly studied in early education and care settings. But there is a considerable number of studies on routine environmental cleaning in clinical settings such as hospitals with a higher certainty of evidence.</p> <p>The quality of the evidence included in these systematic reviews varied across the critical outcomes. GRADE rates the type of epidemiological evidence typical of broad public health exposures as low to very low; hence, the certainty in the overall evidence was rated as very low. Higher 'quality' study designs that are more typical for clinical practice guidelines - such as randomised control trials - are not appropriate for most public health interventions.</p> <p>The committee concluded that it is the absence of evidence for routine environmental cleaning in early education and care settings that has resulted in the low certainty of evidence rating. The committee agreed that scientific studies are only one part of the supporting rationale for this recommendation, there is a strong rationale for the effectiveness of routine environmental cleaning in early education and care settings.</p>
<p>Benefits and harms</p>	<p>How substantial are the harms</p>	<p>The committee considered the benefits and harms of this recommendation and agreed that the benefits of routine cleaning of surfaces clearly outweigh any undesirable effects. The cleaning of</p>

	and benefits of hand washing?	<p>surfaces is fundamental in reducing the risk of transmission of infections in the early education and care setting.</p> <p>The committee discussed potential harms including adverse skin and respiratory reactions to cleaning products, which may be experienced by educators and other staff and children. The committee discussed the improvement in general cleaning practices during the Covid-19 pandemic and agreed that post Covid-19, most people value environmental cleaning very highly, despite any potential harms.</p>
Preference and values	Is there variation in how much value people (including their parents or carers) place on the desirable and undesirable effects of environmental cleaning?	<p>The committee considered the preferences and values of stakeholders when developing this recommendation. They agreed that it is expected that all educators and other staff, parents and carers and children attending early education and care services would highly value minimising infections and risk of transmission of infections through safe and effective routine cleaning of general surfaces as well as those more frequently touched or handled.</p> <p>The committee noted that there are established preferences for the type of product used to clean surfaces. The guideline clearly recommends the most appropriate product to use in each cleaning situation.</p>
Equity	What would be the impact on health equity if environmental cleaning is recommended?	The committee agreed that it is expected that health equity would be increased if this recommendation was implemented. The recommendation should not create new health inequities or worsen any current inequities.
Acceptability	Would recommending no environmental cleaning to minimise harm	The committee considered the acceptability of recommending no routine cleaning and agreed that it would not be acceptable in early education and care settings. The committee discussed change in awareness and practices following the Covid-19 pandemic and agreed that most people accept routine environmental cleaning as standard practice, and the absence of cleaning would be acceptable.

	be acceptable to educators and other staff and children?	This recommendation and the additional information provided is consistent with the 6 th edition and generally acceptable method of minimising the risk of transmission of infectious diseases in this setting.
Feasibility	Is the option realistic and practical (feasible) to implement?	The committee considered the feasibility of implementing this recommendation and agreed that the frequency of routine environmental cleaning and recommended methods and products are realistic and practical to implement in this setting. Many services clean throughout the day and after hours. The recommendations in the 6 th edition of staying healthy are feasible for early education and care services to implement without impacting their service.
Resources and other considerations	Does this proposed recommendation have resource implications (costs)?	The committee agreed that there are cost and time considerations for this recommendation. They noted that the recommendation requires services to purchase specific cleaning products including detergent and washing powder. These products have been recommended for cleaning and are considered standard cleaning practices in this setting for many years. Services can implement this recommendation without significantly increasing the time implications to conduct routine environmental cleaning.
Environmental sustainability	Does the proposed recommendation have potential environmental impacts?	The committee discussed the potential environmental impact created with this recommendation. They noted that there is a potential environmental impact from recommending disposable gloves which produces waste, so utility gloves are recommended for routine cleaning. The committee also noted the environmental impact of using detergents and chemicals for cleaning.
Rationale for recommendation	Why did the committee develop this recommendation?	The committee acknowledged that environmental cleaning interventions are poorly studied in early education and care settings and agreed that scientific studies are only one part of the supporting rationale for this recommendation. The committee agreed that this recommendation is reflective of current accepted practice in education and care services.

EtD Cleaning spills		
Recommendation: Cleaning with specific products should be performed when a spill of body fluids (urine, faeces, vomit, blood) occurs.		
Criterion	Description	Judgement
Certainty of the evidence	What is the overall certainty/ quality of the evidence?	<p>A scoping review and systematic reviews of the evidence were conducted by HTAnalysts to establish an evidence base to inform the 6th Edition of Staying Healthy. The objective of the systematic reviews was to evaluate the effectiveness of non-pharmaceutical interventions and exclusion measures in reducing the spread of infectious diseases in education and childcare settings.</p> <p>HTAnalysts found two systematic reviews that met the inclusion criteria for environmental cleaning. Jefferson 2020 and Xiao 2020 reviewed environmental cleaning as an intervention to reduce the risk of transmission of respiratory infection. The committee noted that cleaning of spills is poorly studied in early education and care settings however there is a considerable number of studies on the methods and general practices for cleaning spills in clinical settings such as hospitals with a higher certainty of evidence.</p> <p>The quality of the evidence included in these systematic reviews varied across the critical outcomes. GRADE rates the type of epidemiological evidence typical of broad public health exposures as low to very low; hence, the certainty in the overall evidence was rated as very low. Higher 'quality' study designs that are more typical for clinical practice guidelines - such as randomised control trials - are not appropriate for most public health interventions.</p> <p>The committee concluded that it is the absence of evidence for cleaning spills in early education and care settings that has resulted in the low certainty of evidence rating. The committee agreed that scientific studies are only one part of the supporting rationale for this recommendation, there is a strong rationale for the effectiveness of cleaning spills in early education and care settings.</p>
Benefits and harms	How substantial are the harms and benefits of cleaning spills?	The committee considered the benefits and harms of this recommendation and agreed that the benefits of cleaning up a spill of body fluids (urine, faeces, vomit, blood) outweigh any undesirable effects.

		<p>The committee noted that early education and care service associated infections are a major threat to educator and other staff, parent and carer and child health and appropriate site decontamination after spills of blood, vomit, urine and faeces can help to reduce the spread of infection.</p> <p>The committee discussed potential harms including adverse skin and respiratory reactions to cleaning products, which may be experienced by educators and other staff and children. The committee noted that reactions are unlikely to occur as the guideline recommends removing all people from the spill area and drying the area after using specific cleaning products.</p> <p>The committee considered the potential harm from storage of cleaning products and noted that the guideline recommends that all products are stored in an area that cannot be accessed by children and according to the product safety data sheet (SDS).</p>
Preference and values	Is there variation in how much value people (including their parents or carers) place on the desirable and undesirable effects of cleaning spills?	<p>The committee considered the preferences and values of stakeholders when developing this recommendation. They agreed that it is expected that all educators and other staff, parents and carers and children attending early education and care services would highly value minimising infections and risk of transmission of infections through safe and effective cleaning of spills of body fluids.</p> <p>The committee noted that there are established preferences for the type of product used to clean spills in services and that some people may value the use of disinfectant products over bleach solutions for cleaning.</p> <p>The committee considered the potential undesirable effects of headaches and skin reactions (in educators and other staff and children) from using cleaning products. The committee agreed that the undesirable effects are unlikely and that following the Covid-19 pandemic, most people value cleaning spills very highly despite any potential undesirable effects.</p>
Equity	What would be the impact on health equity if	The committee agreed that it is expected that health equity would be increased if this recommendation was implemented, and that the recommendation should not create new health inequities or worsen any current inequities.

	cleaning spills is recommended?	
Acceptability	Would recommending not cleaning spills to minimise harm be acceptable to educators and other staff and children?	<p>The committee considered the acceptability of recommending no cleaning of spills and agreed that this would not be acceptable in early education and care settings.</p> <p>This recommendation and the additional information provided is consistent with the 5th edition and generally acceptable method of minimising the risk of transmission of infectious diseases in this setting.</p>
Feasibility	Is the option realistic and practical (feasible) to implement?	<p>The committee considered the feasibility of implementing this recommendation and agreed that the potential frequency of cleaning spills and the recommended methods and products are realistic and practical in this setting.</p> <p>The service representative members of the committee noted that many services have "spill kits" in each room or a central location which makes them easy to access if a spill occurs.</p>
Resources and other considerations	Does this proposed recommendation have resource implications (costs)?	<p>The committee agreed that there are cost and time considerations for this recommendation. They noted that the recommendation requires services to purchase specific cleaning products including detergent, disinfectant and bleach, however these products have been recommended for cleaning spills and used in standard cleaning practices in this setting for many years.</p> <p>The committee noted the time implication for this recommendation and agreed that the time cost is outweighed by the reduction in transmission of infection that maybe in the spill.</p>
Environmental sustainability	Does the proposed recommendation have potential	The committee discussed the potential environmental impact created with this recommendation. They noted that disposable gloves, cleaning products and paper towels are recommended for cleaning spills, which creates waste.

	environmental impacts?	
Rationale for recommendation	Why did the committee develop this recommendation?	The committee acknowledged that spill cleaning interventions are poorly studied in early education and care settings and agreed that scientific studies are only one part of the supporting rationale for this recommendation. The committee agreed that this recommendation is reflective of current accepted practice in education and care services.

EtD exclusion periods		
Recommendation: Educators and other staff and children who show signs of illness should be excluded from the service.		
Criterion	Description	Judgement
Certainty of the evidence	What is the overall certainty/ quality of the evidence?	<p>A scoping review and systematic reviews of the evidence were conducted by HTAnalysts to establish an evidence base to inform the 6th Edition of Staying Healthy. The objective of the systematic reviews was to evaluate the effectiveness of non-pharmaceutical interventions and exclusion measures in reducing the spread of infectious diseases in education and childcare settings.</p> <p>HTAnalysts found 20 studies (14 systematic reviews and six primary studies) and six national guidelines with evidence available for meta-analysis for exclusions measures. HTAnalysts evaluated the effectiveness of exclusion measures for four overarching disease categories pertaining to the 43 infectious diseases listed in the 5th edition.</p> <p>The evidence evaluation provided low certainty of evidence for three disease categories and moderate to low certainty of evidence for one diseases category. GRADE rates the type of epidemiological evidence typical of broad public health exposures as low to very low; hence, the certainty in the overall evidence was rated as very low. Higher 'quality' study designs that are more typical for clinical practice guidelines - such as randomised control trials - are not appropriate for most public health interventions.</p> <p>The committee concluded that it is the absence of evidence for exclusion measures in early education and care settings that has resulted in the low certainty of evidence rating. The committee agreed that scientific studies are only one part of the supporting rationale for this recommendation, there is a strong rationale for the effectiveness of exclusion measures in early education and care settings. Furthermore, the committee noted there is a considerable number of studies on exclusion in primary school, secondary school and workplace settings with a higher certainty of evidence.</p>
Benefits and harms	How substantial are the harms and	The committee acknowledged there will be benefits and harms experienced when excluding educators, other staff and children from services. Potential benefits include reducing

	benefits of exclusion?	<p>transmission of infectious diseases, reducing absenteeism due to illness, and maintaining health of educators and other staff and children.</p> <p>The committee extensively discussed the potential harms of exclusion. These harms included the pressure experienced by working or studying parents who are unable to find suitable alternative care. The committee recognised that this may also create stress in family relationships where parents and carers need to decide who will stay home from work to care for a sick child (also potentially leading to a loss of income). It was recognised that this can result in sick children being sent to services to allow parents and carers to fulfil other commitments.</p> <p>The committee acknowledged that children who are excluded from care may also experience the potential harm of loss of education, particularly when they are excluded for a longer period.</p>
Preference and values	Is there variation in how much value people (including their parents or carers) place on the desirable and undesirable effects of exclusion?	<p>The committee considered the preferences and values of stakeholders when developing this recommendation. The committee accepted that educators and other staff, parents and carers and children attending early education and care services would highly value minimising infections and risk of transmission of infections through exclusion. While minimising infections might be broadly valued, the committee discussed that in some situations, some parents and carers may value desirable and undesirable effect differently, which can be challenging for educators and other staff. In this context, it was noted that clear policies and procedures would be beneficial.</p> <p>The committee acknowledged that in some services in rural and remote locations, children may have easier access to healthcare when attending their early education and care service. It is important to consider the overall risk to the child, in some situations the overall risk (and negative impact on their health) is greater if they are excluded from care.</p>
Equity	What would be the impact on health equity if	<p>The committee recognised that the impact on health equity could be disproportionate. For example, the recommendation may create new health inequities where parents and carers are asked by the service to seek medical advice. Access to primary healthcare services is a</p>

	exclusion is recommended?	<p>known problem in many areas of Australia and some families cannot afford the cost of seeing a general practitioner.</p> <p>Furthermore, people with greater financial resources are more likely to be able to deal with exclusion rather than others - so therefore, exclusion has the potential to improve health but at the expense of equity, particularly with parents being unable to work. This is an issue for different types of families, such as single parent families.</p> <p>This is potentially felt greater in some areas of the community including culturally and linguistically diverse people, First Nations people and lower socioeconomic status families.</p>
Acceptability	Would recommending no exclusion to minimise harm be acceptable to educators and other staff and children?	<p>The committee considered the acceptability and recognised that recommending no exclusion would not be acceptable in early education and care settings.</p> <p>This recommendation and the additional information provided is consistent with the sth edition and is generally acceptable.</p>
Feasibility	Is the option realistic and practical (feasible) to implement?	<p>The committee considered the feasibility of implementing this recommendation and agreed it was realistic and practical to implement. The committee also recognised the feasibility of implementing exclusion recommendations may be different for larger private services compared to family education and care or council operated services.</p> <p>In particular, the committee noted the challenges to implementing exclusion measures and that educators and other staff may receive negative feedback from parents and carers when they are asked to exclude their child from the service.</p>
Resources and other considerations	Does this proposed recommendation have resource	<p>The committee discussed the resources implications for this criterion, particularly the costs associated with this recommendation. The committee noted that costs are a consideration as services may need to pay sick leave for staff who are unwell (and excluded from work) while</p>

	implications (costs)?	<p>also paying for temporary staff to cover shifts. Some services may experience staff shortages where they are unable to find relief staff while employees are excluded.</p> <p>The committee also considered the resource implications for families who need to find suitable alternative care for their child. This may be for an extended time depending on the symptom or disease. There may be a large cost to families who need to access baby sitting or casual in-home care while their child is unwell, and they need to attend work. Families may also lose their source of income if parents and carers need to stay home to care for their child.</p>
Environmental sustainability	Does the proposed recommendation have potential environmental impacts?	There are no potential environmental impacts for this recommendation.
Rationale for recommendation	Why did the committee develop this recommendation?	The committee acknowledged that exclusion interventions are poorly studied in early education and care settings and agreed that scientific studies are only one part of the supporting rationale for this recommendation. The committee agreed that this recommendation is reflective of current accepted practice in education and care services and was developed to support services to minimise the spread of infection and promote health.

Summary of results and best-practice recommendations

- All educators and other staff and children should perform hand hygiene regularly.
(Part 2 - Preventing infection)
- Infection control principles should be used when children's nappies are changed.
(Part 2 - Preventing infection)
- Routine environmental cleaning should be performed daily and when surfaces are visibly soiled.
(Part 3 - A healthy environment)
- Cleaning with specific products should be performed when a spill of body fluids (urine, faeces, vomit, blood) occurs.
(Part 3 - A healthy environment)
- Educators and other staff and children who show signs of illness should be excluded from the service.
(Part 4 - managing infection)

Note: SHAC decided not to use the full GRADE process due to the poor quality of the available evidence. Advice from SHAC Members who are experienced in public health guideline development noted that most public health recommendations are 'weak', therefore SHAC decided not to grade the recommendations in the 6th Edition.

Staying Healthy administrative report

Funding

NHMRC funded the guideline update including all project costs. This included funding for the evidence evaluation, technical writing, Office of NHMRC (ONHMRC) staffing and committee costs.

Contributors and contractors

See also the *Staying Healthy technical report*.

NHMRC Clinical Practice Guidelines staff

Name	Position	Period
Mr Geraint Duggan	Director	June 2021 - June 2024
Ms Stephanie Goodrick	Assistant Director	June 2021 - September 2022
Ms Alice Downing	Assistant Director	September 2022 - June 2024
Ms Margie Morrison	Senior Project Officer	January 2023 - June 2024
Ms Sharon Hoffman	Senior Project Officer	June 2021 - December 2022
Ms Sara Lai	Indigenous Intern	December 2021 - February 2022

Staying Healthy Advisory Committee (SHAC)

The Staying Healthy Advisory Committee (SHAC) was established under Section 39 of the *National Health and Medical Research Council Act 1992*: Establishment of committee by the General Manager. This was recorded as follows:

I, Clare McLaughlin, General Manager of the National Health and Medical Research Council, with responsibility for administering the *National Health and Medical Research Council Act 1992*, and pursuant to Section 39 of that Act, HEREBY;

ESTABLISH the NHMRC Staying Healthy Advisory Committee for the period 9 March 2022 to 30 June 2024.

Terms of reference of the Guideline Development Committee

SHAC will oversee and provide expertise in updating NHMRC's 2013 [Staying Healthy - Preventing infectious diseases in early childhood education and care services](#) and associated resources.

As per previous editions, the updated Staying Healthy will aim to promote and facilitate infection prevention and control in early childhood education and care services, in particular creating a safe environment through the implementation of practices that minimise the risk of transmission of infectious agents.

In undertaking the update, SHAC will:

- Determine the scope of Staying Healthy based on consideration of:

- the currency, accuracy and relevance of the existing edition of Staying Healthy
- feedback provided by the broader community on Staying Healthy
- committee members' knowledge of and expertise in current evidence and practice in infection prevention and control in Australia.
- Advise on the evidence evaluation required to update Staying Healthy by:
 - reviewing the results of a scoping review conducted in 2021 of infection control literature in early childhood settings
 - identifying guidelines and resources to be adapted or adopted in Staying Healthy relevant to the Australian context
 - identifying and prioritising topics and questions that need to be reviewed and methods to identify and evaluate relevant evidence
 - applying the GRADE methodology to develop recommendations.
- Advise on comments received by stakeholders:
 - during targeted and public consultation and expert review of the draft revised guidelines
 - during any other engagement activities with key organisations and groups.

SHAC will report to the Chief Executive Officer of NHMRC, through the Staying Healthy project team.

Staying Healthy Advisory Committee Members

The committee is made up of 8 individual experts, representatives from Australian Children's Education and Care Quality Authority (ACECQA), Communicable Disease Network Australia (CDNA), Early Childhood Australia (ECA), and 2 indigenous representatives who have been sourced through consultation activities as part of the NHMRC 2021 Indigenous Internship project.

Name	Position
Professor Chris Blyth (Chair)	Professor of Paediatric Infectious Diseases, School of Medicine, University of Western Australia; Director, Wesfarmers Centre of Vaccines and Infectious Diseases
Dr Ruby Biezen	Qualitative Research Fellow, Department of General Practice, University of Melbourne
Professor Allen Cheng	Professor, Infectious Diseases Epidemiology, Monash University; Director, Infection Prevention and Healthcare Epidemiology Unit, Alfred Health
Dr Celia Cooper	Clinical Director and Head, Microbiology and Infectious Diseases, Women and Children's Hospital, South Australia
Professor Mark Ferson	Director, South Eastern Sydney Local Health District Public Health Unit
A/Professor Amanda Gwee	Associate Professor, Department of Paediatrics, University of Melbourne
Dr Briony Hazelton	Infectious Diseases Specialist and Clinical Microbiologist, Perth Children's Hospital
Ms Miranda Ihanimo	Gurlu Gurlu Maya Child and Parent Centre Co-ordinator
Ms Rhonda Livingstone	National Education Leader, Australian Children's Education & Care Quality Authority
Ms Samantha Page	Chief Executive Officer, Early Childhood Australia
Ms Leeanne Pena	Cultural Practice Leader, One Tree Community Services
Emeritus Professor Malcolm Sim AM	Emeritus Professor, Monash Centre for Occupational and Environmental Health
Dr Gabriela Willis	Department of Health, Population Health Services, Tasmania

Conflicts of interest

SHAC Conflicts of interest are managed in accordance with the [NHMRC Identifying and Managing Conflicts of Interest of Prospective Members and Members of NHMRC Committees and Working Groups Developing Guidelines](#) documents.

ONHMRC created a disclosure of interest register through its committee centre website, and members forwarded interests to ONHMRC to record. The register was updated as part of the business of each committee meeting.

Committee meetings

- 12 April 2022 - Initial meeting to launch the 2-year project to update the 5th edition of Staying Healthy. The meeting covered:
 - committee introductions
 - background and requirements for the update
 - project process and plan
 - introduction to grading of recommendations, assessment, development and evaluations (GRADE)
 - identification of topics and information to be updated.

- 5 May 2022 - Continued the analysis of topics and information to be updated. The meeting covered:
 - finalisation of topics to be updated
 - review of MAGICapp, the online guideline development and publication tool
 - initial review of current evidence
 - identification of questions to be answered in the evidence review; ONHMRC to seek a contractor to undertake the systematic review
 - review of factsheets and required updates.
- 24 August 2022 - Discussion around evidence evaluation protocols. The meeting covered:
 - protocol for respiratory interventions
 - protocol relating to Exclusion Methods.
- 8 September 2022 - Discussed specific updates to topics and information, and noted that HTAnalysts had been contracted to conduct the evidence review. The meeting discussed:
 - monitoring illness in children
 - concepts in infection control
 - nappy changing and toileting
 - play areas
 - fact sheets.
- 8 November 2022 - Presentation of evidence review results by HTAnalysts and continuation of topic discussion. The meeting discussed:
 - issues for employers
 - immunisation
 - cleaning and spills
 - factsheets and ready reckoner.
- 1 December 2022 - Introduction of Biotext (content leads) and further presentation and discussion of evidence review results by HTAnalysts.
- 14 February 2023 - Continued discussion of guideline development. The meeting covered:
 - approach to editing by Biotext
 - approach to evidence to decision and recommendations
 - approval of the symptom and disease fact sheet templates provided by Biotext.

SHAC meetings will continue to be held until final publication of the guidelines.

Working groups

Working groups (WG) were also informally formed to review and progress specific areas of the guidelines. Members were invited to nominate for specific groups based on their expertise.

A series of WG meetings were held in September 2022 to review guideline content. WGs were re-evaluated following the restructure of the guideline in November 2022 and new groups were formed to review content in early 2023. Meeting were held in February-March 2023 to make decisions on new content.

WG meetings will continue to be held as needed until final publication of the guidelines.

Contractors

Two contractor services suppliers were engaged to complete work for the Staying Healthy Guidelines. All contracted staff completed Declarations of Interest prior to commencing work.

- Health Technology Analysts Pty Ltd ([HTAnalysts](#)) were engaged to conduct expert systematic reviews for the 2 clinical questions identified by SHAC. HTAnalysts were selected through a Request for Quote process through the Health Evidence, Advice and Methods Panel. Dr Margaret Jorgensen lead the evidence review, with assistance from Dr Kate Nolan and Sinead McCraith.
- Biotext Pty Ltd ([Biotext](#)) were engaged as technical writers to provide guidance and editing to ensure the guidelines meet audience needs, and are clear, consistent and easily navigated. Biotext were selected through a Request for Quote process through the Health Evidence, Advice and Methods Panel. Kylie Evans and Jennifer Robertson of Biotext undertook the work on the revision of Staying healthy, with editorial assistance from other Biotext staff.

Guideline users

The ONHMRC conducted an initial survey of users, including education and care service managers and staff, to identify gaps and issues in existing content. This was used to inform SHAC and Biotext reviews and redrafting.

Public consultation

Summary of process

Public consultation will be undertaken from 21 August to 6 October 2023 in accordance with Section 13 of the *National Health and Medical Research Council Act 7992*. (The NHMRC requirements for public consultation are a minimum 30 days under the Act.)

Public consultation will be conducted through the NHMRC Citizenspace platform.

Contacts

Contacts for public consultation include:

- ACECQA master list of contacts for registered services
- professional networks of SHAC members
- contact list from the NHMRC intern project
- promotion through NHMRC Tracker Newsletter
- promotion through key stakeholder agencies.

Expert review

NHMRC has invited SHAC Members to nominate expert reviewers to review the public consultation version of the guideline. NHMRC will invite 10 content experts to review the guidelines based on a defined series of questions. This is an additional check included in the NHMRC Procedures and requirements to ensure that the process is rigorous and the guideline recommendations are evidence based.