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# Managing outbreaks in residential aged care

Preparedness 'health check'





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# About this tool

In aged care services, infectious illness may spread from resident to resident, resulting in what we refer to as an outbreak. Outbreaks of infectious illness in residential aged care services are a risk to the health and wellbeing of residents, staff, and families.

There are many things an aged care service can do to limit the likelihood of diseases spreading between residents. All aged care providers need to work with their consumers to develop a clear plan for when a resident exhibits signs or symptoms of respiratory or gastroenteritis illnesses.

For a good plan to be executed well, preparation is essential. Safer Care Victoria has worked with experts and clinicians to prepare this 'health check' tool, which is underpinned by improvement science.

Use this tool to test your current preparedness against key resource requirements.

## HOW TO USE THIS TOOL

This document walks you through how to review and prepare for responding to outbreaks of infectious illness. Based on the Institute for Healthcare Improvement's (IHI) model for improvement, this approach can be adapted to your service. It will support you to make meaningful changes that lead to measurable improvements.

This document is grouped into six steps:

- 1. Form a project team**
- 2. Understand your gaps**
- 3. Develop measures**
- 4. Brainstorm change ideas**
- 5. Review your change ideas**
- 6. Look for improvements, celebrate successes and change as needed**

In each step you'll find advice and key actions. At the back of this tool you'll find key resources that you can use to check your service's preparedness for outbreaks of infectious illness.

# Step one: Form a project team

Ensuring your service is prepared in the event of an infectious outbreak is everyone's business. The first step of the improvement cycle is forming a team who can successfully implement change in your organisation.

Forming the right project team to review your preparedness for potential or actual infectious outbreaks will give you the best chance of embedding any required changes. The 'right team' will have the expertise, resources and commitment for success.

Responding to infectious illness and outbreaks is complex and will need all members of the care team working effectively together – not just the clinicians or infection control consultants. There is no one 'recipe' for a successful team to implement a change project, rather having a mix of system and day-to-day leaders and technical expertise will help ensure the success of the project.

Forming a project team is only the beginning. Next you need to be clear on what you are trying to achieve by agreeing on an aim. A strong aim with a clear timeframe will establish what you want to accomplish and will keep your team on track. It may be an aim to improve part of your service delivery, or more broadly cover a wider aspect of care.

## Be clear on what you are trying to achieve

Your aim should be specific to your organisation, your staff and the residents at your service.

Your team can always come back and revise your aim as you progress, however being ambitious at the outset will give your team a good foundation to build on.

Some examples of an aim include:

- Reduce the risk of influenza transmission between residents and staff by increasing the rate of staff, resident and volunteer vaccinations to at least 95 per cent by September 2020.
- Reduce the risk of influenza spreading to well residents by ensuring prophylaxis has been considered and a plan documented for 100 per cent of Dr Smith's residents and signed off by the by GP by May 2020.

## Remember: Don't do it alone, you need a team

When forming your team, you should consider including:

- **a resident and/or family member** – to meaningfully engaging consumers in your improvement and innovation activities and ensure changes meet the needs of the consumer
- **an executive sponsor** – to be responsible for the overall success of the project
- **internal technical expertise** – such as infection control practitioners, nursing staff or quality officers
- **external technical expertise** – such as GPs, Nurse practitioners, medical specialists pharmacists and allied health professionals
- **other staff/stakeholders with expertise** that can help you to achieve your aim.

## Step two: Understand your gaps

Understanding any potential gaps in infection control or outbreak management is vital to establishing your baseline. The following websites can help you:

- For infection control audits:  
[infectioncontrol.grampianshealth.org.au/index.php/health-resources/infection-control/167-audit-tools](https://infectioncontrol.grampianshealth.org.au/index.php/health-resources/infection-control/167-audit-tools)
- For cause and effect tools:  
[www.ihl.org/resources/Pages/Tools/CauseandEffectDiagram.aspx](http://www.ihl.org/resources/Pages/Tools/CauseandEffectDiagram.aspx)

### PRIORITISE YOUR GAPS

After you have understood where your gaps are, it is important to prioritise the gaps you should address first.

Addressing gaps that directly impact resident and staff safety should be prioritised. You should undertake this function with your project team to ensure a coordinated approach.

### Before you can improve you need to understand your current state

Establishing your baseline may involve:

- **reviewing policies and procedures, to ensure they reflect current guidelines** (this tool provides links to current evidence-based guidelines to assist your review)
- **understanding staff knowledge of infection control and outbreak management**, including if staff can access guidelines and policies
- **reviewing previous feedback from consumers or public health authorities** that emerged from previous outbreaks
- **reading up on evaluations of previous outbreaks** to understand any factors that contributed to previous outbreaks – such as unwell visitors coming to the service – and the lessons that may assist with future preparations
- **looking at key data sources** – such as vaccination rates for staff, volunteers and residents – for opportunities to improve from the previous year.

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# Step three: Develop measures

Developing measures to quantify your progress allows you to monitor if your improvement strategies are achieving your aims.

Measures do not need to be onerous. You should ensure they are easy to capture and report as your team progresses through the project.

## USING MEASURES

Some examples of measures your project team might use (but are not limited to):

### STRONGLY RECOMMEND:

- vaccination rates for residents and staff
- number of residents with a current prescription from their GP for antiviral medications where applicable (including writing up on the medication chart), and a clear action plan prepared

### RECOMMEND:

- number of staff who have had training in infection control/outbreak management
- number of residents who have attended information sessions for infection control/outbreak management
- number of staff who have viewed training/webinars on the importance of vaccinations
- number of staff who can correctly identify emerging infectious outbreaks and report these appropriately

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## Step four: Brainstorm change ideas

Think about what will work best at your service to improve the way you manage outbreaks. Your change ideas should address the gaps identified during your self-assessment.

Changes should be developed in collaboration with your stakeholders, as they will have unique insights into what will lead to sustained improvement.

It is important not to forget the simple things. Some staff may not be familiar with all the areas that require their attention. For instance, consider whether all staff are familiar with the correct methods for the application and removal of PPE, or if they're using the correct dilution rates of cleaning solutions? Look to your data sources to understand areas where your staff may need additional support.

### WHAT CHANGE IDEAS WILL RESULT IN MEASURABLE IMPROVEMENT?

Some examples of strategies you might use to improve your preparations for outbreaks include:

#### STRONGLY RECOMMEND:

- Engaging GPs prior to the influenza season to discuss your preparedness. This might include sending letters or links to webinars (see suggested resources below)
- Engaging with GPs to provide prescriptions for antiviral medications where applicable (including writing up on the medication chart).
- Reviewing why staff or volunteers may be hesitant to participate in the vaccination program, and if there are strategies that may increase vaccination rates
- Ensuring residents have current advanced care directives to provide guidance if they become seriously unwell.

#### RECOMMEND:

- Reviewing your education for staff in outbreak management. While services often include infection control as a part of annual mandatory training, you should check if this training targets your specific areas of concern or if other strategies may be more useful.
- Asking residents, families and staff about what is important to them in an outbreak. This might include communication protocols or minimising distress for residents affected by decreased visitors and activities at the service during an outbreak.
- Considering if there are areas of your service that manage infection control better than others and any learnings that could be shared.
- Considering if some improvement strategies work better in particular areas of your service and what you can learn from this.



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# Steps five and six

## STEP FIVE:

### **Review your change ideas**

It is valuable for your project team to include incremental reviews to see if your strategies are having an impact. Collecting data about your changes on a regular basis (e.g. monthly), will help monitor your progress.

Your measures will enable your team to observe your progress and provide feedback to your stakeholders. Seeing positive results will help you maintain momentum and continue with future improvements.

You should keep clear documentation at all stages of this improvement project. Documenting actions and progress on your continuous improvement plan will allow you to clearly demonstrate the quality processes your team are working on. This documentation can also be used to demonstrate improvements to the Aged Care Quality and Safety Commission.

## STEP SIX:

### **Look for improvements, celebrate successes and change as needed**

Now that your team has examined the data and reviewed your measures, pause and make any necessary adjustments to your aim, measures and strategies before starting the next improvement stage.

You might find some of your measures have progressed well and are worth sharing and celebrating, while others have not progressed as you planned. Be on the lookout for unintended consequences that your team did not anticipate. Being open to learning throughout your improvement cycle and making the necessary changes or adjustments will keep your change on track to achieve the desired result.

We have included an example of a case study in the next section, so you can see how an improvement cycle might work.



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# Example case study

## PREPARING FOR INFLUENZA OUTBREAKS: A CONTINUING JOURNEY

This hypothetical case study provides an example of how an aged care service might conduct an improvement project to review and improve their management of influenza outbreaks.

**By Jane Smith, Nurse Unit Manager, Ideal Healthcare Nursing Home**

In 2019 Ideal Healthcare Nursing Home dealt with an outbreak of influenza.

Since then we have started an improvement journey. While it is still early stages in our improvement project, already we have seen a 30 per cent increase in the number of residents who have antiviral prescriptions written on their medication chart.

The nursing home is a public sector residential aged care service with 60 beds and a dementia specific unit of 10 beds.

Six months ago, we had a laboratory-confirmed outbreak of influenza. We also experienced a gastroenteritis outbreak more than two years ago.

To improve our infection control/outbreak management plan, we decided to implement an improvement project. We formed a project team, which included:

- an infection control practitioner
- a GP
- nurse unit manager
- executive aged care manager
- quality manager
- a resident who has been at the service for some time.

At the first project meeting the team discussed any current and potential infection control issues and chose one area to focus on for the project.

I had recently viewed a webinar (Reflections on 2019 Influenza season) and realised there were gaps in our current system. It did not plan for use of antiviral medications in the case of an outbreak. While influenza vaccinations were available, there were no arrangements for administering antiviral medications in a timely manner if a laboratory-confirmed influenza outbreak occurred.

The team decided our aim for the improvement project would be:

**By May 2020 all residents, where applicable, have a prescription and order written up on the medication chart from their GP, so that antiviral medications can be obtained and administered if a laboratory confirmed influenza outbreak occurs.**

### Determining the baseline

To understand our baseline, the team reviewed:

- **medication charts** to determine the number of residents who had prophylactic antiviral medication written up and signed on the medication chart for administration in an influenza outbreak
- **policies and procedures** to see if these included reference to the use of antiviral medications in an outbreak
- **their last influenza outbreak** (six months prior) to determine if antiviral medications were administered during this outbreak
- **staff understanding of outbreak management** and how antiviral medications may reduce the spread of infection in a laboratory-confirmed influenza outbreak
- **pharmacy and supply chain issues** to understand if it would be possible to supply these prescribed medications in a timely manner if there was an outbreak.

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We then agreed on the following measures to monitor the effectiveness of their project:

- per cent of residents where there are plans in place for antiviral medication to be administered in the case of a laboratory confirmed outbreak
- per cent of staff who have attended education sessions regarding current approaches to influenza outbreaks in residential aged care.

The team decided to monitor these additional measures to make sure the proposed change did not have unintended consequences:

- resident influenza vaccination rates to determine if they were maintaining vaccination levels throughout the change
- outbreak size
- resident mortality rates

The quality manager set up a system to record these measures. We discussed the data at each project team meeting to monitor progress of their measures.

## Understanding the results

At the next meeting we discussed the results of the baseline review:

- no residents had prescriptions for antiviral medications in the case of a lab confirmed influenza outbreak
- policies and procedures did not recommend the prescription of antiviral medication to be ready in the case of a laboratory-confirmed influenza outbreak
- no residents were administered antiviral medications as a prophylaxis when the last outbreak occurred
- staff were not familiar with the role of antiviral medications in a laboratory-confirmed influenza outbreak

- some GPs were not aware of the use of antiviral medication as a prophylaxis in the case of an influenza outbreak in a residential aged care facility.

## Change ideas

We brainstormed the following change ideas:

- The quality committee should review policies and procedures in line with current resources.
- A short video will be developed for use at handover explaining actions required in an outbreak and how to recognise an emerging outbreak.
- Information will be sent to GPs about this improvement project including a link to the webinar: Reflections for the 2019 Influenza season.
- The nurse unit manager should engage with GPs to provide prescriptions for antiviral medications where applicable (including writing up on the medication chart).
- Infectious outbreaks and use of antiviral medications should be added to the agenda for the next resident meeting. Letters will be sent to families about outbreak management, inviting them to provide feedback.
- In response to the last outbreak which was particularly severe for residents in the dementia specific unit:
  - An education session on monitoring for signs of influenza-like illness in the elderly will be held and added to the services online learning modules
  - Memos will be sent to staff explaining revised policies, including immediate actions to take should they suspect an outbreak
  - Roles and responsibilities of staff in an outbreak should be clarified, particularly who is responsible for initial reporting and ordering of additional stock.

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We then discussed progress of our current measures and what we have learned so far.

At this stage **more than 30 per cent** of residents have prescriptions for antiviral medications written on the medication chart. However during discussions, it was apparent families had not been told about the cost of the medication.

Anecdotal feedback from staff during training sessions indicated a low level of knowledge in recognising and managing outbreaks, highlighting the need to increase training opportunities for staff.

As a result of these lessons, we undertook the following actions:

- The nurse unit manager sent a letter to families to gain financial consent, should the service need to access the prescribed antiviral medications as a prophylaxis in the event of a laboratory-confirmed influenza outbreak. The number of families who gave financial consent was added as an additional measure.
- A reminder was sent to GPs to increase the prescription of prophylaxis antiviral medications, with a link to the 2019 influenza season webinar.
- The education manager was asked to more thoroughly review staff training needs in outbreak management.

At the next project meeting we discussed the progress and what we still needed to do to achieve our aim.

We had made good progress to improve our outbreak preparedness. We also felt that we now had a lot more engagement with GPs, families and other stakeholders.

The project team continues to meet on a regular basis, to review measures and evaluate progress towards our aim.

At this point in the improvement process we agreed that:

- we are more equipped and prepared should an outbreak occur
- through monitoring measures we are able to clearly observe their progress
- forming a project team helped share the responsibility
- engaging stakeholders is key to a successful improvement project.

# Resources to support you

Influenza and respiratory outbreak resources	What the content includes	Link
VIC Department of Health and Human Services: <i>Respiratory illness management in aged care facilities</i>	<ul style="list-style-type: none"> <li>information about personal protective equipment, hand hygiene</li> <li>instructions on pre-season planning, communications to GPs and families</li> <li>links and other resources for outbreak management</li> </ul>	<a href="#">Respiratory illness management in aged care facilities - health.vic</a>
Department of Health: <i>Influ-Info Influenza Kit for aged care</i>	Influenza resources and outbreak management information	<a href="#">Influ-Info Influenza Kit for Aged Care   Ageing and Aged Care</a>
Department of Health: <i>Guidelines for the prevention control and public health management of influenza outbreaks in residential care facilities in Australia</i>	Infection control and outbreak management for Influenza outbreaks in residential aged care	<a href="#">Department of Health   Guidelines for the Prevention, Control and Public Health Management of Influenza Outbreaks in Residential Care Facilities in Australia</a>
fluTAS, Tasmanian Government, Department of Health <i>Aged Care Facilities and Flu</i>	Influenza resources and sample vaccination register	<a href="#">Aged Care Facilities   Flu Tas</a>
Aged Care Quality and Safety Commission <i>Influenza Resources</i>	<ul style="list-style-type: none"> <li>information on outbreak management</li> <li>links to resources in various states</li> </ul>	<a href="#">Influenza resources   Aged Care Quality and Safety Commission</a>
Gastroenteritis specific resources	What the content includes	Link
Department of Health: <i>Guidelines for the public health management of Gastroenteritis outbreaks due to norovirus or suspected viral agents in Australia</i>	<ul style="list-style-type: none"> <li>Infection control information</li> <li>outbreak management information including cleaning and hospitality considerations</li> </ul>	<a href="#">Department of Health   Chapter 8: Infection control</a>
VIC Department of Health and Human Services <i>A guide for the management and control of gastroenteritis outbreaks in aged care, special care, health care and residential care facilities</i>	<ul style="list-style-type: none"> <li>Resource kit to assist in the management of a gastroenteritis outbreak</li> <li>Notification requirements and contacts that can be used for policy review, staff training etc</li> </ul>	<a href="http://www2.health.vic.gov.au/about/publications/researchandreports/guide-for-management-and-control-of-gastroenteritis-outbreaks">www2.health.vic.gov.au/about/publications/researchandreports/guide-for-management-and-control-of-gastroenteritis-outbreaks</a>

Department of Health: <i>Gastro-Info: Outbreak Coordinators Handbook</i>	Resource kit to assist services to undertake a policy review in the event of a gastroenteritis outbreak	<a href="#">Gastro-Info - Outbreak Coordinator's Handbook   Ageing and Aged Care</a>
<b>COVID-19 resources (Novel Coronavirus) *</b>	<b>What the content includes</b>	<b>Link</b>
Department of Health: <i>Australian Health Sector Emergency Response plan for Novel Coronavirus (COVID -19)</i>	Reference tool for preparing emergency plan for pandemic infections	<a href="http://www.health.gov.au/resources/publications/australian-health-sector-emergency-response-plan-for-novel-coronavirus-covid-19">www.health.gov.au/resources/publications/australian-health-sector-emergency-response-plan-for-novel-coronavirus-covid-19</a>
Communicable diseases Network Australia (CDNA) <i>National guidelines for Public Health Units</i>	Information about the public health management of COVID -19	<a href="http://www1.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-novel-coronavirus.htm">www1.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-novel-coronavirus.htm</a>
Australian Government Department of Health <i>Coronavirus (COVID-19) resources</i>	Facts sheets and resources in various languages for aged care staff, families and residents to provide advice on how to limit transmission of the virus	<a href="http://www.health.gov.au/resources/collections/novel-coronavirus-2019-ncov-resources">www.health.gov.au/resources/collections/novel-coronavirus-2019-ncov-resources</a>
<b>Clinical resources</b>	<b>What the content includes</b>	<b>Link</b>
VIC Department of Health and Human Services <i>Standardised care processes</i>	Evidence-based standardised care processes for important areas of resident care (SCP) for antimicrobial stewardship and infection control. (Can be used for policy review)	<a href="#">Standardised care processes - health.vic</a>
Queensland Government, Queensland Health <i>Disease prevention in residential care facilities</i>	Guidelines and resources to support policy review for infectious outbreaks	<a href="#">Disease prevention in residential care facilities   Queensland Health</a>
<b>Staff / GP education resource</b>	<b>What the content includes</b>	<b>Link</b>
Safer Care Victoria, Infection Control Clinical Network: <i>Reflections on 2019 Influenza season webinar</i>	Webinar for GPs, emergency department staff, RACS staff about the 2019 influenza season. (Can be used for staff education)	<a href="http://www.redbackondemand.com.au/on/channel/SCV/">www.redbackondemand.com.au/on/channel/SCV/</a>

Vaccination resources	What the content includes	Link
Department of Health <i>Mandatory influenza (flu) vaccination program for residential aged care providers</i>	Requirements for residential aged care providers to have mandatory influenza vaccination program	<a href="#">Mandatory Influenza (flu) vaccination program for residential aged care providers   Ageing and Aged Care</a>
Immunization Coalition	Short video about the importance of staff vaccinations	<a href="#">Why should healthcare workers have a yearly influenza vaccination - YouTube</a>
Department of Health Resources for Flu Vaccination 2019	Resources for consumers and providers, including in other languages	<a href="#">Influenza   Australian Government Department of Health</a>
Infection surveillance and Antimicrobial Stewardship resources	What the content includes	Link
VICNISS Coordinating centre	<ul style="list-style-type: none"> <li>● Educational webinars</li> <li>● Protocols and data collection forms for healthcare worker and resident processes (e.g. vaccinations) and outcome (e.g. Infection surveillance modules)</li> </ul>	<a href="http://www.vicniss.org.au/">www.vicniss.org.au/</a>
National Antimicrobial Stewardship Centre	User guide and data collection forms for Aged Care National Antimicrobial survey	<a href="http://www.ncas-australia.org/">www.ncas-australia.org/</a>
Infection control resources	What the content includes	Link
NHMRC: <i>Australian guidelines for the Prevention and Control of Infection in Healthcare (2019)</i>	<ul style="list-style-type: none"> <li>● Requirements for best practice infection control</li> <li>● Access to clinical educator guides</li> <li>● Consumer factsheets for various infections</li> </ul>	<a href="http://www.nhmrc.gov.au/about-us/publications/australian-guidelines-prevention-and-control-infection-healthcare-2019">www.nhmrc.gov.au/about-us/publications/australian-guidelines-prevention-and-control-infection-healthcare-2019</a>
Grampians Region Infection Control Group	Infection control resources for aged care services, including audits (Can be used for self-assessment and policy review)	<a href="#">Infection Control</a>

VICNISS Coordinating Centre <i>Infection control tool box</i>	<ul style="list-style-type: none"> <li>● Links to infection control resources</li> <li>● training resources</li> <li>● outbreak management</li> <li>● cleaning standards</li> <li>● antimicrobial stewardship</li> </ul> (Can be used for staff education and policy review)	VICNISS - Infection Control Toolbox
VIC Department of Health and Human Services <i>Chlorine dilutions calculator</i>	Information for cleaning using chlorine based solutions in an outbreak. (Can be used for staff education)	<a href="#">Chlorine dilutions calculator - health.vic</a>
Consumer resources	What the content includes	Link
Better Health Channel	Resources for consumers / residents about infections such as influenza and gastroenteritis (Can be used for communicating with families)	<a href="#">Infections - Better Health Channel</a>



