

## Ventilation and infection control

As part of the Service Maintenance Program, organisations may wish to consider implementing or upgrading ventilation systems in their services.

### Who is eligible to apply for funding?

To be eligible, organisations must:

- be an Aboriginal Community Controlled Health Service;
- currently deliver primary health care; and
- be listed at Appendix A of the Grant Opportunity Guidelines.

Eligible organisations are also able to apply on behalf of a subsidiary and/or auspiced organisation/s, provided the auspiced organisation is an Aboriginal Community Controlled Health Service currently delivering primary health care.

To be considered, your grant activity must be for a project(s) that delivers safe, accessible, and fit-for-purpose clinics and/or clinical staff housing.

#### Why does ventilation matter?

Effective infection prevention and control is central to providing safe and accessible health care environments. Improvements to ventilation are a cost-effective public health measure that can decrease COVID-19 transmission: because COVID-19 spreads through the air, indoor ventilation is an important factor in controlling transmission in these settings.<sup>1</sup>

#### What are the criteria for healthcare facilities?

The heating, ventilation, and air conditioning (HVAC) criteria for healthcare facilities should focus on the following four major principles:

- Room ventilation rates (air change per hour)
- Outside air rates (air change per hour)
- Airflow direction
- Filtration requirements for HVAC recirculating systems.

<sup>&</sup>lt;sup>1</sup> Osliewski et. al. (2021) School Ventilation: a Vital Tool to Reduce COVID-19 Spread, Johns Hopkins Center for Health Security.

Table 1: Minimum performance criteria for an in-patient unit as defined within the *Engineering Guidelines* for Healthcare Facilities

| Criteria  | Below minimum recommendation   | Minimum recommendation  | Exceeds minimum recommendation   |
|---|--|---|--|
| Room ventilation rate                             | <6 ACH   | 6-8 ACH   | >8 ACH   |
| Outside air rate                                  | <2 ACH   | 2 ACH   | >2 ACH or 100% outside air   |
| Airflow direction                                 | Net positive<br>environment between<br>patient zones and<br>common areas | Balanced to slight net<br>negative airflows<br>between patient<br>zones and common<br>areas | Net negative<br>environment between<br>patient zones and<br>common areas.<br>Greater than -2.5Pa |
| Filtration (for<br>recirculating HVAC<br>systems) | < MERV 13<br>(F7 or below)   | MERV 13-16<br>(F8 or F9)  | HEPA filters   |

Source: Victorian Health and Human Services Building Authority (2020).<sup>2</sup>

# What should I consider in developing my organisation's application for ventilation and infection control funding?

Commissioning, maintenance, and proper operation of buildings and HVAC systems is necessary for systems to be effective in controlling transmission. You should consider the following when developing your application:

- Do you understand your obligations under current national, state and territory, and local laws/policies/regulations?
- Are you compliant with these laws/policies/regulations? If you are not currently compliant, what would be required to ensure that you are able to meet these standards?
- Have you engaged an appropriately qualified and/or licensed professional to assess your existing HVAC systems, and identify repair/maintenance/upgrade needs?

# Who should I ask for advice about my clinic's HVAC requirements?

This will depend on the scope and complexity of the work being undertaken.

For simple projects, such as replacement of existing HVAC units, this may only require a local contractor.

For more complex projects, such as those involving the redesign and/or modification of existing infrastructure, you may need to engage one or more of the following:

<sup>&</sup>lt;sup>2</sup> Victorian Health and Human Services Building Authority (2020) HVAC System Strategies to Airborne Infectious Outbreaks – Health Technical Advice: HTA-2020-001-Rev B, Victorian Government.

- Project manager
- Architect
- Engineer
- Building services engineer
- Professional electrical engineer.

#### What should I ask them?

In addition to the considerations outlined above, you may also want to ask an appropriately qualified professional the following questions, as this will have an impact on your HVAC system's ability to operate effectively:

- is the current electrical service to the building able to support the installation of the new ventilation system or air conditioning?
- does the new ventilation installation need a water supply?
- do any additional works need to be undertaken to make sure that existing infrastructure (e.g. water supply, electricity) can sustain ongoing demand?

# What else can I do to improve my clinic's ventilation and infection control?

HVAC systems should form part of a suite of measures to improve air quality, flow, and ventilation in buildings, but should not be the sole measure for addressing these issues. For example, alternative or additional measures to support improved air quality and ventilation may include reconfiguring clinic entrances and/or reception areas to assist with infection control.

### How can I apply for funding?

Application documents are available on GrantConnect.

Before applying, applicants must read and understand the Grant Opportunity Guidelines, the Application Form and the sample grant agreement.

To apply, applicants must:

- complete the Application Form on GrantConnect;
- provide all the information requested;
- address all eligibility criteria and assessment criteria;
- include all necessary attachments; and
- submit application by the closing date and time, as specified in the guidelines.

### Where can I get more information?

You can access more information on ventilation at the resources below:

Australian Guidelines for the Prevention and Control of Infection in Healthcare

Australian Health Protection Principal Committee (AHPPC) statement on the role of ventilation in reducing the risk of transmission of COVID-19

National Construction Code Indoor Air Quality Handbook (2021)

National Construction Code Volume One – Compliance Pathways (2020)

National Construction Code Volume Two – Compliance Pathways (2020)

University of Melbourne School of Geography, Earth and Atmospheric Sciences Guide to Air Cleaner Purchasing (2021)

If you have any questions about this grant opportunity, please contact the Department of Health and Aged Care <u>Grant.ATM@health.gov</u>