

Dear Student Care Centre Operators,

## **IMPROVED VENTILATION TO FURTHER REDUCE THE RISK OF COVID-19 TRANSMISSION**

COVID-19 is mainly transmitted through respiratory droplets from an infected individual to those around them. When the infected individual coughs, sneezes, talks loudly or sings, small particles and aerosols can also be emitted, which could result in transmission of the virus to others in the same room or area. This risk is higher when there is prolonged contact, especially in enclosed environments with limited airflow and poor ventilation. This does not mean that one can easily contract the virus by simply breathing. However, in enclosed environments with limited airflow and poor ventilation, the risk of transmission is greater.

2 In addition to good hygiene practices (e.g. wearing masks, washing hands regularly, safe distancing), **good ventilation will prevent the accumulation of any virus aerosols in the air, and thus further reduce the risk of exposure to the virus.** The Building and Construction Authority (BCA), the National Environment Agency (NEA) and the Ministry of Health (MOH) have updated the technical Guidance Note to building owners and facilities managers on improving ventilation and indoor air quality in buildings, taking into account the latest COVID-19 situation. The Guidance Note provides detailed technical recommendations for premises according to the type of ventilation system used. **These are based on the principle of maximising fresh air intake, and appropriate cleaning of recirculated air in indoor spaces.**

3 You can refer to the joint press release and Guidance Note issued by BCA, NEA and MOH on 25 May 2021 at <https://www.nea.gov.sg>

### **What can Student Care Centres do to ensure good ventilation**

4 To minimise the risk of COVID-19 transmission for the health and wellbeing of all children and staff, Student Care Centres must ensure good ventilation to supplement existing measures under the COVID-Safe ABCs. Student Care Centres are advised to implement the following measures to improve ventilation of your premises:

- a. For Student Care Centres located in **air-conditioned premises with mechanical ventilation provision (e.g. centralised air-conditioning system)**
  - i. **Contact your building owner or facilities managers to ensure that:**
    - Ventilation systems are adequate and in good working order.
    - Air Handling Unit (AHU) uses high-efficiency filters (at least MERV14 or F8 is recommended) to treat recirculated air.
    - They adhere to the recommended measures in the Guidance Note issued by BCA, NEA and MOH to enhance ventilation and air quality in indoor spaces, through the proper operations and maintenance of air-conditioning and mechanical ventilation (ACMV) systems.
  - ii. **Increase ventilation in premises with limited ventilation:**
    - Open operable windows and doors as frequently as possible, unless outdoor/outside air quality is poor.
    - Consider positioning fans at windows to blow air outwards and increase air exchange.

- Operate exhaust fans (e.g. in toilets, kitchens) at full capacity to expel air from indoor spaces. Keep windows and other openings (e.g. back door) around exhaust fans closed to avoid short-circuiting of air flow.
- Consider using portable air purifiers for localised air cleaning as an interim measure where ventilation is limited. Please note that air cleaning does not replace the need for adequate ventilation. Regular surface cleaning and disinfection should also continue, as portable air purifiers do not remove surface contamination.

**b. For Student Care Centres located in enclosed air-conditioned premises without mechanical ventilation provision (e.g. split-unit air-conditioners)**

**i. Increase ventilation and enhance air exchange:**

- Open operable windows and doors as frequently as possible, unless outdoor air quality is poor.
- Operate exhaust fans (e.g. toilet, kitchen) at full capacity to expel air from the indoor space. Keep windows or other openings (e.g. back door) around exhaust fans closed to avoid short-circuiting of air flow.

**ii. Consider installing window-mounted exhaust fans to enhance ventilation:**

- If installing window-mounted exhaust fans, Student Care Centres should check with the supplier that the fan system provides the minimum air changes specified in Singapore Standards SS553.<sup>1</sup>
- Student Care Centres should also request that the contractor align the air supply and exhaust system to provide uni-directional airflow in a poorly ventilated space.

**iii. Consider using portable air purifiers for localised air cleaning in enclosed spaces as an interim measure:**

- Portable air purifiers should be equipped with high-efficiency air filters such as HEPA filters, which are effective at removing virus aerosols.
- Ensure that the size and number of portable air purifiers are adequate for the space. Student Care Centres can check with their supplier, if unsure.
- If the portable air purifier has an ozone generation function, turn it off to avoid excessive exposure to ozone levels and by-products, which may be hazardous to health.
- Please note that air cleaning does not replace the need for adequate ventilation. Regular surface cleaning and disinfection should also continue, as portable air purifiers do not remove surface contamination.

**c. For Student Care Centres located in naturally ventilated premises**

**i. Increase natural ventilation with fans:**

- Keep windows and/or doors open at all times, unless outdoor air quality is poor or the weather condition does not allow.
- Position fans at windows to blow air outwards and increase air exchange.
- Operate exhaust fans (e.g. toilet, kitchen) at full capacity to expel air from the indoor space. Keep windows or other openings (e.g. back door) around exhaust fans closed to avoid short-circuiting of air flow.

**ii. Consider installing window-mounted exhaust fans to enhance ventilation:**

- If installing window-mounted exhaust fans, Student Care Centres should check with the supplier that the fan system provides the minimum air changes specified in SS553.
- Student Care Centres should also request that the contractor align the air supply and exhaust system to provide Uni-directional airflow in a poorly ventilated space.

**For more information**

5 For clarifications on improving ventilation and indoor air quality in your Student Care Centres, please contact the following officers:

- Dr. Lee Jang Young, [Lee\\_Jang\\_Young@bca.gov.sg](mailto:Lee_Jang_Young@bca.gov.sg)
- Dr. Sim Shuzhen, [Sim\\_Shuzhen@nea.gov.sg](mailto:Sim_Shuzhen@nea.gov.sg)
- Er. Joseph Toh, [Joseph.Toh2@mohh.com.sg](mailto:Joseph.Toh2@mohh.com.sg)

6 For other enquiries specific to your Student Care Centres please contact your respective Student Care Officer or call the SCC hotline at Tel: 6354 8487 (8.30am to 6pm daily). School-based SCC operators are advised to continue to refer and adhere to the guidelines issued by the school administration.

[1]: Singapore Standard SS553: Code of Practice for Air Conditioning and Mechanical Ventilation in Buildings

Student Care Centre Operations, MSF