Dear Premier

REVIEW OF QUARANTINE HOTELS

On 31 January 2021, I recommended a 5-day lockdown of the Perth, Peel and South West regions of Western Australia in response to the detection of COVID-19 in a State Quarantine Facility worker (Case 903). There has been increasing evidence that transmission of COVID-19 through airborne transmission may play a more important role than originally thought, which is the likely explanation for Case 903 and may explain similar cases in other jurisdictions. As hotels are designed for amenity rather than infection control, and overseas arrivals are resident in State Quarantine Facilities for a minimum 14-day period, this may result in an extended period of potential contact with quarantine workers and the potential for multiple interactions. While other measures had been progressively introduced, including enhancements to testing, personal protective equipment (PPE), secondary employment, infection control training, hygiene measures, and staff vaccination, the impacts of air-flow and ventilation had not been comprehensively investigated. As a result, a ventilation risk assessment and ventilation engineering review was commissioned in early February 2021 and carried out by Glossop Consultancy and PDF Engineering. I provided advice on the results of this review to Government on 16 April 2021.

The ventilation systems were assessed in ten hotels – nine that were used for hotel quarantine at the time of the assessment and one new hotel (Adnate Hotel) that was being considered as a new quarantine hotel. All ten of the hotels have varying ventilation designs and equipment. The Glossop report included a ventilation transmission risk ranking for quarantine hotels in use, noting the many factors attributing to the risk of infection. Three hotels, the Four Points Sheraton Hotel, the Mercure Hotel and Novotel Langley were rated ‘Red’ risk (higher risk) and three hotels, the Holiday Inn, the Novotel Murray Street and the Pan Pacific, were rated ‘Amber’ risk (moderate). Four hotels were rated ‘Green’ or low risk – Adnate Hotel, Hyatt Hotel, Intercontinental Hotel and the Westin Hotel. On 14 April 2021, I proposed that the Mercure Hotel be closed, and the Four Points Sheraton be retained for low risk seasonal workers arriving from Pacific countries. After the outbreak in the Mercure Hotel, the State Government decided to close two of the ‘Red’ risk hotels (Mercure and Four Points) and only utilise the Novotel Langley Hotel for low risk seasonal workers. As people complete
their hotel quarantine periods in these hotels, these hotels are being progressively closed or transitioned to a low risk workers' hotel and these actions should be complete by mid-May 2021. The decision to proceed with the Adnate Hotel is also currently on hold.

In light of the Mercure outbreak, and the subsequent transitioning out of the higher risk hotels, the State Government requested further advice on 28 April 2021 on the moderate risk hotels and their ongoing suitability for use after the implementation of the proposed mitigation factors from the report. The subsequent infection on 01 May 2021 of a 22-year-old man, who was working as a security guard at the Pan Pacific quarantine hotel (Case 1001), while probably not related to ventilation, highlighted the need for further review of these hotels.

**Moderate Risk Hotels**

As part of the risk mitigation actions, the individual hotel reports from Glossop Consultancy and PDF Engineering have been shared with the individual hotels to assist with planning modifications to the hotels.

The Holiday Inn is currently operated as a dedicated hotel for international aircrew, who typically only stay 1-2 days before leaving on a return flight. While a small number of cases have been picked up in this group, they are generally lower risk due to the measures taken by the airlines, including PPE and vaccination, to minimise their exposure and infection risk. The report provide by Glossop Consultancy and PDF Engineering advised that the Holiday Inn provided a good level of safety, as the rooms are negatively pressurised compared to the corridors, which protects hotel workers, security guards and other guests. It was noted, however, that the hotel has openable windows. Where windows are opened and there is a strong wind blowing, there will likely be an increase in pressure in the room, thus negating the negative pressure effects. The report recommended locking the windows closed where possible. I can confirm that the State Health Incident Coordination Centre (SHICC) has liaised with the Holiday Inn, who have agreed to seal all windows.

The Novotel Murray Street was found to have a mix of positively and negatively pressured rooms according to the report by Glossop Consultancy and PDF Engineering. This was based on an assessment of 5 rooms only. The Novotel Murray has reviewed their rooms utilising a Heating, Ventilation and Air Conditioning (HVAC) consultant from D&E Air Conditioning, who have advised that all the rooms at the Novotel Murray are negative pressure. In addition, the consultant advised that the facility has the capability to resolve the issue of air balance quickly and easily. The Accor General Manager advised that that the hotel was already working on rectifying the issues, including:

- making sure that fan covers cannot be moved; and
- re-direction of air into the corridor to increase air to corridor.

The Pan Pacific Hotel was also found to have a mix of positively and negatively pressured rooms according to the Glossop ventilation report. As a result, Glossop Consultancy and PDF Engineering recommended housing guests in negative pressure rooms only. Since that time, the Pan Pacific Hotel have retested all the rooms on several floors and ascertained that most rooms were negative or neutral pressure without intervention. They have now cleaned the exhaust fans in all rooms, had the main exhaust fan on the roof of the building serviced and
undertaken testing in all rooms to ensure that they are all negatively pressured. They have also committed to regular servicing of in-room extraction fans.

Additional Measures

In addition to the ventilation changes, the following mitigation measures have been implemented in all State Quarantine Facilities.

1. **Positive Cases.** Where there a positive COVID case in a State Quarantine Facility guest, the following process is followed:
   a. notification is received from PathWest of the positive case;
   b. the location of the guest is marked out on the hotel floor plan;
   c. the position of security guards on the floor is reviewed. The security guard is directed to move their position if they are within 1.5 – 2.0m of the room, with the aim to get greater than 3m distance between the security guard’s position and the room of the case;
   d. identification of any other cases or guests using positive airway pressure devices, as outlined below, on that floor. Where there are guests who are near to cases (e.g. a guest in the room between two cases, the guest is moved if they have had a negative 48-hour PCR test);
   e. a HEPA filter is placed in the room where it is available. There are currently 50 units available for deployment. These units reduce the viral load in the room, which could move into the corridors; and
   f. where there is more than one positive case in the room, a buffer zone is created. In this circumstance, guests in all adjacent and opposite rooms (directly opposite and diagonally) are moved.

2. **Personal Protective Equipment.** PPE requirements have been increased across all sites. Surgical masks and protective eyewear are now mandatory for all workers in high-risk areas. In addition to this, gowns must now be worn by housekeeping staff when cleaning rooms. Surgical face masks are now provided to all hotel quarantine guests to be worn when opening their hotel room door for any reason. Door opening has also been minimised following the introduction of new door opening guidelines and rules.

3. **Nebulisers.** A nebuliser, a medical device that turns liquid into a fine mist, typically to deliver inhaled medication, can potentially spread the coronavirus to the surrounding area via aerosols. These units have since been banned in state quarantine facilities, with guests provided with an alternate form of medication or moved to a hospital facility where there is no appropriate alternative. In addition to this, restrictions have been placed on the use of continuous positive airway pressure therapy (CPAP) and bilevel positive airway pressure therapy (BiPAP) units. These machines increase the air pressure in the throat so that the airway doesn't collapse when one breathes in. They are used by persons with obstructive sleep apnoea to breathe more easily during sleep. The air pressure from CPAP increases droplet production and spread from the mouth and nose, with the potential to spread the coronavirus to the surrounding area. Guidelines for guest use of these supportive modalities of non-invasive ventilation have been introduced, which include restricting hours of usage and restriction of movements on the floor during the hours of usage.
4. **Closed-circuit television.** Closed-circuit television (CCTV) has been installed or enhanced across all locations. The use of CCTV allows security guards to monitor all rooms, where they might not be able to see all the rooms directly. This allows the guards to be placed in the optimal position to reduce the risk of infection. With regards to the three moderate risk hotels, the Pan Pacific had a full and functional CCTV system installed and no amendments were required, the CCTV system in Novotel Murray required enhancement only and this work is expected to be completed on 7 May 2021 and a CCTV system is currently being installed at the Holiday Inn, with an expected completion date of 17 May 2021.

5. **Vaccination.** The COVID-19 vaccination has been available to hotel quarantine workers from 22 February 2021. Since then, numerous measures have been instituted to encourage the voluntary vaccination of hotel quarantine staff as the best protection against the risk of contracting COVID-19. The Pfizer vaccine has been demonstrated to be effective in preventing infection in individuals and subsequently reducing spread to others in the community, particularly those who are more vulnerable, such as those over 70 years of age and those who can’t be vaccinated on medical grounds. As a result, I will be issuing Directions under the *Public Health Act 2016* that will require the mandatory vaccination of unvaccinated staff at hotel quarantine facilities from 10 May 2021, as I advised separately by letter on 28 April 2021.

6. **Secondary Employment Restrictions.** Persons employed at State Quarantine Facilities have been limited to employment only at that facility, to prevent the spread of infection between places of employment. Support payments have been provided to workers to compensate for the restrictions on secondary employment.

In consideration of all the mitigation measures that have been employed since the review of the ventilation risk assessment was commissioned, both general and hotel-specific, and particularly the efforts taken by the quarantine hotels to ensure all room are negative pressure, I am satisfied that the three hotels that were originally deemed to be ‘Amber’ or moderate risk can now be considered, after mitigation, to be ‘Green’ or low risk.

I am happy to re-consider the above advice should there be significant changes in the public health situation.

Yours sincerely

Dr Andrew Robertson

CHIEF HEALTH OFFICER

05 May 2021