



Protecting our healthcare workers



Protecting our last line of defence

Victoria's healthcare workers are the last line in our defence against coronavirus (COVID-19).

Every day, and across our state, they are testing, treating and caring for Victorians with this virus.

As they care for us, it's vitally important we care for them and their safety.

Protecting our healthcare workers sets out the very latest in our understanding of the virus and how it can spread within our healthcare settings – both hospitals and aged care facilities.

This document delivers on our commitment to give Victorians access to the most up-to-date information and insight, with the latest data on infections in healthcare workers.

More importantly it also steps out our solutions – the additional steps we will take in order to help address these challenges.

We believe this information will be of interest not only to healthcare workers and Victorians, but it has the potential to inform the latest global scientific and clinical understanding of the virus and its highly infectious nature, and the best protection we can offer.

We would like to acknowledge everyone who contributed to this body of research, including our hospitals, clinicians, scientists and academics. We would also like to acknowledge the work of the Healthcare Worker Infection Prevention and Wellbeing Taskforce in identifying many of the solutions.

Finally, we would like to acknowledge the efforts of our healthcare and hospital workers for everything they do every day to drive down this virus.

On behalf of every single Victorian, thank you.

Review of coronavirus (COVID-19) cases in healthcare workers

In order to address to an increased number of confirmed cases of coronavirus (COVID-19) in healthcare workers a review of the available data has been undertaken.

The review identified:

- As of 23 August, 2,692 cases of coronavirus (COVID-19) have been diagnosed in healthcare workers. Of these, 2,450 (or 91 per cent) of cases have been diagnosed in July and August. For August, the average number of daily new infections is 33.7.
- The following analysis considers the 2,497 healthcare worker cases acquired from 1 January to 19 August.
- In wave one, 22 per cent of healthcare workers who acquired coronavirus (COVID-19) acquired it at work.
- In wave two – and reflecting the increased case load – at least 69 per cent of all healthcare worker cases have been or were likely to have been workplace acquired, noting a number remain under investigation.
- During the second wave, 955 (42 per cent of infections) worked in aged care settings, 729 (32 per cent) worked in hospital settings and 36 (1.5 per cent) were related to GP clinics.
- Aged and disability carers infected with coronavirus (COVID-19) were more likely to have acquired it in their workplace setting than other types of healthcare workers.

Action we are taking to protect our healthcare workers

Preventative work has been undertaken since the beginning of the pandemic in hospitals, aged care facilities and general practice to protect these workforces.

A dedicated Personal Protective Equipment Taskforce was established early in the pandemic to provide guidelines on the appropriate level and use of Personal Protective Equipment (PPE), with PPE provided appropriate to the clinical situation, incorporating up to date evidence as it emerges.

More recently a Healthcare Infection Prevention and Wellbeing Taskforce has been established to gather and review data on healthcare worker infections and provide guidance based on emerging evidence of best practice infection control practices within health settings. This group also has a specific focus on improving the care for and wellbeing of our healthcare workers.

Additionally, we've undertaken widespread testing including at outbreak sites, furloughing staff when there is an outbreak and providing hotel accommodation for hospital and aged care workers who can't self-isolate or quarantine at home – protecting them and those they live with.

In addition, financial incentives have been made available to reduce the movement of aged care workers across sites while outbreak management squads have been working closely with aged care settings where an outbreak has occurred including additional education.

There is also ongoing work being undertaken by Primary Health Networks (PHNs), Professional Colleges, the Australian Medical Association (AMA), the Commonwealth and State to provide infection control advice and resources to GPs, including running webinars, online training videos, practice guides and Health professional specific advice lines.

We are committed to adjusting our response in line with expert advice so that every effort is made to protect Victoria's healthcare workers.

In keeping with the report's findings, a number of actions will now be implemented in order to further protect Victoria's healthcare workers.



Action 1 – Sharing of data

Greater access to data about healthcare worker infections and systematic sharing of learnings from outbreaks will enable us to better track the spread of the virus and build confidence in steps being taken to reduce healthcare worker cases.

Under this action, the Victorian Government will release data which will include:

- where and, to the extent possible, how healthcare workers are contracting the virus
- a breakdown of the numbers and disciplines of positive healthcare workers
- lessons learned from hospital outbreaks (collated and disseminated by Safer Care Victoria).

Online forums will also be established to allow healthcare workers to access updated information and advice, and to ask questions relevant to their setting and circumstances.

Hospital settings

The Healthcare Infection Prevention and Wellbeing Taskforce and Safer Care Victoria will collect contact tracing data from hospitals facing active outbreaks to enable detailed analysis of infection trends to inform early action. These will be shared as part of the Taskforce's regular communications.

Action 2 – Support for infection prevention control

As part of the ongoing review of best use of PPE, the PPE Taskforce has recommended broadening the setting for the use of N95 masks to include emergency departments, intensive care units, COVID-19 wards, aged care facilities and any other setting where COVID-19 patients are cohorted.

Health clusters will also provide additional training support on infection control and incident management responses to hospital and aged care providers in their catchments.

Aged care settings

Residential Aged Care Support Officers are being deployed to aged care settings to provide on-site support to staff in those aged care facilities to improve infection control. That will include the appropriate use and application of PPE.

In addition to the provision of PPE, staff are also being allocated dedicated safe spaces to dress and remove their PPE.

Hospital settings

Each health service will now be required to implement repeated surveillance testing of staff working on coronavirus (COVID-19) wards to further guard against infection.

PPE 'spotters' will be deployed in hospital settings to ensure accurate application and removal of protective wear for healthcare workers entering and leaving COVID-19 environments.

The Department of Health and Human Services (DHHS) will also undertake a 'fit testing' trial of PPE focused on staff at highest risk in a designated health service to provide greater insight into clinical evidence.

Recognising new and emerging evidence regarding aerosol spread, the Victorian Health and Human Services Building Authority is undertaking a COVID Aerosol Hot Spot Analysis Study to identify potential 'hot spots' in clinical spaces caused by exhaled aerosols coming to rest on surfaces.

This study models aerosol behaviour and then tracks particles as they are carried in the Heating, Ventilating, and Air Conditioning (HVAC) airstreams, until they impact and stick to a surface, and will be used to inform a new series of guidance notes.

Action 3 – Improving COVIDSafe workplaces

Health services, residential aged care facilities, residential disability facilities and GP clinics will be responsible for incorporating and recording a verbal attestation of symptom status into their daily worker health checks.

To limit infection among healthcare workers, safe and clean amenities (bathrooms and break rooms) must be provided at every health workplace across the state.

Aged care settings

The Department of Health and Human Services will work with the Victorian Aged Care Response Centre (VACRC) and the Commonwealth Government to propose a program of self-assessment of staff amenities in every aged care facility with immediate implementation of alternative arrangements where existing facilities do not meet minimum standards.

It is also proposed that VACRC will co-ordinate industry wide auditing of COVIDSafe plans for the aged care sector.

Primary care settings

The Department of Health and Human Services will work with the Royal Australian College of General Practitioners, the AMA, and the Commonwealth to enhance GP capability around infection control, including regular review of infection control plans and provide practice level training to improve knowledge and practice.

Access will also be provided to specialist external infection control support and advice.

Hospital settings

Every health service in Victoria will be required to self-assess their amenities to ensure they meet a minimum standards for physical distancing, cleanliness and infection control. Where amenities do not meet these standards, such as not being large enough to accommodate staff while respecting density requirements, alternative arrangements including temporary facilities must be immediately implemented in consultation with unions.

DHHS will work with the Victorian Aboriginal Community Controlled Health Organisation (VACCHO) and the Commonwealth Government to propose undertaking a similar program of self-assessment for Aboriginal Community Controlled Organisations.

COVIDSafe plans are a critical step in the fight against the virus.

Safer Care Victoria will work with health services to undertake detailed spot audits of the implementation of COVIDSafe plans (or equivalent) to assess for quality and safety, including the implementation of infection prevention and control actions.

Additionally, DHHS will partner with VACCHO to undertake similar audits of Aboriginal community-controlled health services.

Action 4 – Promotion of financial incentives to limit worker mobility

Safer Care Victoria is working with professional groups including medical specialist colleges to look at ways to reduce all avoidable movement of medical staff, especially where there is an outbreak.

Hospital and other healthcare settings

Ongoing analysis will assess whether mobility restrictions may become necessary during outbreaks in health services. For example, in the event that a doctor is prevented from working at a public health service experiencing an outbreak, they may mean they are paid for the hospital session that has been missed to reduce financial impacts as a result of movement restrictions.



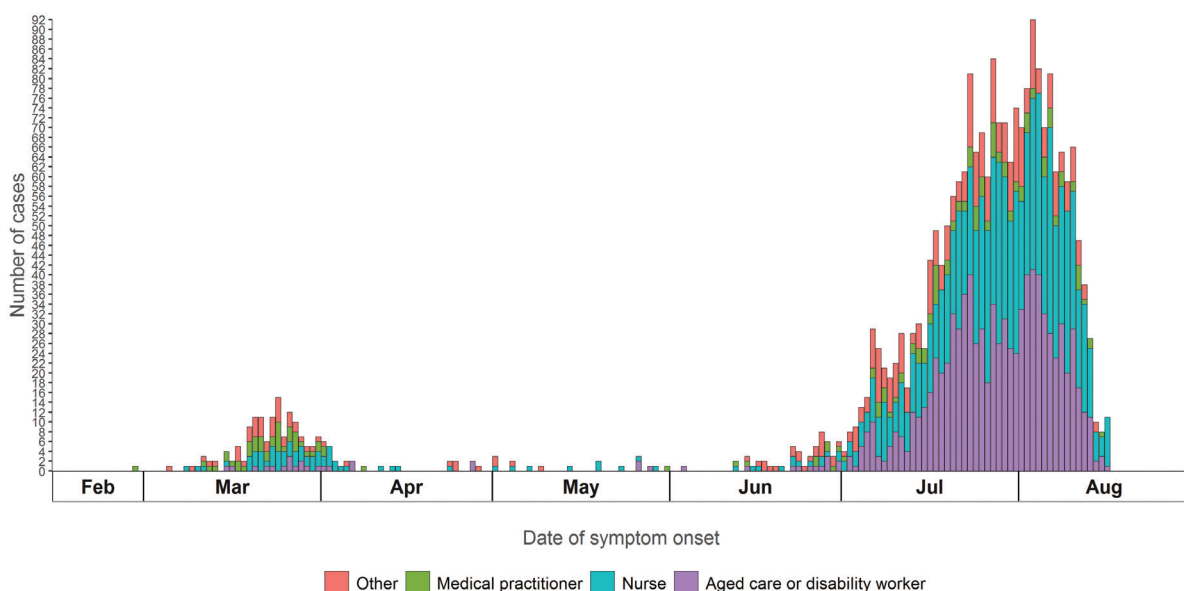
Healthcare worker cases over time

The figure below shows a rapid increase in cases in healthcare workers which began in early July. The highest number of cases are seen in aged care and disability workers, then in nurses.

Healthcare workers who may have acquired coronavirus (COVID-19) from somewhere other than their workplace, for example a family member or while travelling overseas, are also captured in the review.

This review is ongoing, and DHHS will continue to collect and evaluate the data.

Figure 1: Epidemic curve of healthcare worker cases by date of symptom onset*



Summary by occupation

The analysis found the following in second wave data:

- 79 per cent of the 2,255 coronavirus (COVID-19) cases diagnosed in healthcare workers from 1 July 2020 have been investigated so far. Investigations are ongoing into the outstanding cases.
- Of the 924 aged and disability carer cases, 84 per cent have been investigated. Of these, 90 per cent of the cases were acquired by carers at work.
- Of the 106 medical practitioner cases, 76 per cent have been investigated. Of these, 77 per cent of the cases were acquired by practitioners at work.
- Of the 922 nurse cases across all settings, including aged and disability care and in hospitals, 79 per cent have been investigated. Of these, 89 per cent of the cases were acquired by nurses at work.
- Of the 303 cases occurring among other types of healthcare workers, 65 per cent have been investigated. Of these, 69 per cent were acquired by healthcare workers at work.
- In total, at least 69 per cent of all infections have been determined as likely to have been acquired at work. If we exclude cases where investigations are still ongoing, this number rises to 86 per cent. In only 6 per cent of completed investigations were infections acquired outside the workplace.

Table 1: Acquisition of COVID-19 in a healthcare setting, by healthcare occupation by time period (number, percent of row)

Occupation	Healthcare acquired	Likely healthcare acquired	Not Healthcare acquired	Unable to be determined	Under investigation	Grand Total
Until 30 June 2020	52 (22%)	1 (0%)	122 (50%)	56 (23%)	11 (5%)	242
Aged care or disability worker	3 (9%)	0	17 (49%)	12 (34 %)	3 (9%)	35
Medical practitioner	15 (28%)	0	29 (54%)	8 (15%)	2 (4%)	54
Nurse	27 (34%)	0	33 (42%)	19 (24%)	0	79
Other healthcare worker*	7 (9%)	1 (1%)	43 (58%)	17 (23%)	6 (8%)	74
From 1 July 2020	1329 (59%)	214 (10%)	128 (6%)	116 (5%)	468 (21%)	2255
Aged care or disability worker	674 (73%)	30 (3%)	39 (4%)	35 (4%)	146 (16%)	924
Medical practitioner	49 (46%)	14 (13%)	4 (4%)	15 (14%)	24 (23%)	106
Nurse	497 (54%)	144 (16%)	48 (5%)	41 (4 %)	192 (21 %)	922
Other healthcare worker*	109 (36%)	26 (9 %)	37 (12%)	25 (8%)	106 (35%)	303

*This category includes paramedics, pharmacists, midwives, dental professionals, medical imaging professionals and other healthcare workers.



Summary by workplace

Cases among health and aged care workers in the second wave have been significantly more likely to be acquired when they are at work. This is consistent with the change in the pandemic in Victoria between the waves.

The analysis found the following:

- Since 1 July, 955 of all healthcare worker cases were associated with aged care outbreaks. There have been 140 aged care facility outbreaks since June.
 - 74 per cent of the index cases – that is “patient zero” cases – were staff, who are likely to have acquired the infection in the community or their household, and then the infection has spread through their workplace.
 - In aged care settings, 66 per cent of cases in the workforce are aged care or disability workers, 27 per cent are nurses, 0.3 per cent are medical practitioners and 7 per cent are other healthcare workers.

Table 2: Healthcare worker with confirmed COVID-19 in aged care settings by healthcare occupation (number, per cent of row) since 1 July

Occupation	Count (%)
Medical Practitioner	3 (0%)
Nurse	256 (27%)
Aged care or disability worker	632 (66%)
Other Healthcare Worker	64 (7%)
Grand Total	955

- 447 (20 per cent) of all health care worker infections in the second wave were acquired in hospital settings
 - In hospital settings, 73 per cent of cases in the workforce were nurses, 11 per cent medical practitioners, 12 per cent other health care workers and 4 per cent aged care or disability workers.

Table 3: Healthcare workers with confirmed COVID-19 nominating primary workplace as hospital by healthcare occupation (number, percent of row) since 1 July

Occupation	Count (%)
Aged care or disability worker	31 (4%)
Medical practitioner	81 (11%)
Nurse	532 (73%)
Other healthcare worker	85 (12%)
Grand Total	729

- 36 of the total confirmed cases in the second wave relate to general practice clinics.
 - In general practice clinics 53 per cent of cases in the workforce were medical practitioners and 30 per cent have been nurses, with the remainder other healthcare workers.

Table 4: Healthcare worker with confirmed COVID-19 in GP clinics by healthcare occupation (number, per cent of row)

Occupation	Count (%)	Acquired or likely healthcare acquired
Medical Practitioner	19 (53%)	3 (27%)
Nurse	11 (30%)	6 (55%)
Other Healthcare Worker*	6 (17%)	2 (18%)
Grand Total	36	11

How healthcare workers acquired coronavirus (COVID-19)

Based on investigations of the data, healthcare workers acquired coronavirus (COVID-19) at work in the following circumstances:

- They were working in a location that had an outbreak of coronavirus (COVID-19)
- They had contact with a confirmed case in a healthcare setting during the period they acquired coronavirus (COVID-19)
- They worked on a coronavirus (COVID-19) ward or other environment with high coronavirus (COVID-19) case load

This list is not exhaustive. For some healthcare workers there is a clear alternative source of infection, such as a family member who was a positive case.

A more detailed understanding of where these staff worked within the hospital setting and the risk factors for exposure is needed and is being investigated.

Aged care settings

Based on investigations to date, poor infection prevention control has been the main driver of secondary transmission in aged care settings, including widespread environmental contamination, contamination of PPE by infected residents and mobility of workforces between sites.

Hospital and other settings

There are a number of emerging risk factors for acquisition and secondary transmission in hospital settings, including multiple coronavirus (COVID-19) positive patients in the same clinical space, in addition to older ventilation systems that are less effective at recirculating air, thereby reducing optimum air flow.

This has clear implications for the cohorting – putting coronavirus (COVID-19) patients together in the same ward – and care of patients with the virus.

In addition, healthcare workers are contracting coronavirus (COVID-19) when putting on PPE, and when interacting with other health workers outside of patient care (for example, in tea rooms when PPE is not worn) and movement between facilities.

Clustering of cases also suggests secondary transmission between healthcare workers is occurring in hospitals.



Find out more www.dhhs.vic.gov.au/coronavirus

**If you are concerned, call the
Coronavirus hotline 1800 675 398 (24 hours)
Please keep Triple Zero (000) for emergencies only**

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