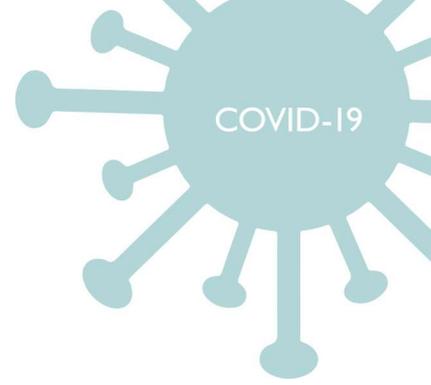




COVID-19 North West Regional Hospital Outbreak Interim Report

29 April 2020



COVID-19 North West Regional Hospital Outbreak - Interim Report

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For further information, please contact:

Department of Health

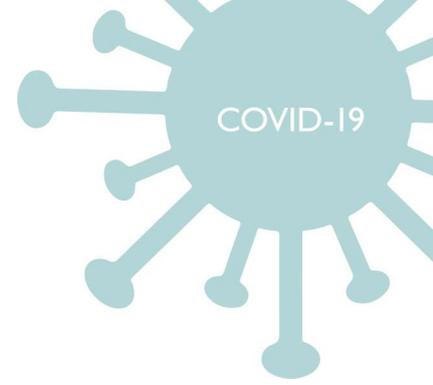
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29 April 2020



Letter to the Minister for Health

Hon Sarah Courtney MP
Minister for Health

Dear Minister,

COVID-19 – North West Regional Hospital Outbreak – Interim Report

I write to provide an Interim Report in relation to the Covid-19 Outbreak that occurred at the North West Regional Hospital.

This Interim Report is presented in two parts - Interim Report “Preliminary analysis of the COVID-19 outbreak in a Tasmanian healthcare setting”, Dr Mark Veitch, Director of Public Health and Dr Scott McKeown, Deputy Director of Public Health dated 29 April 2020 (Part A of this Report) and the Tasmanian Health Service North West Outbreak Interim Review Recommendations proposed by Professor Tony Lawler, Chief Medical Officer, dated 28 April 2020 (Part B of this Report).

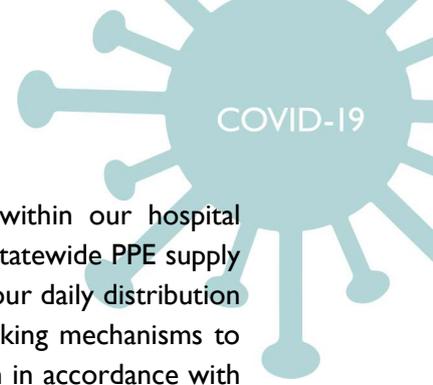
Covid-19 Public Health Emergency

Tasmania is currently at Day 44 of the Public Health Emergency known as Covid-19, which was declared on Tuesday 17 March 2020. The North West Regional Hospital (NWRH) outbreak, which is now known to have commenced on or about 3 April 2020, occurred on Day 18 of the public health emergency, and early in the implementation of the State’s Covid-19 Health response. As noted by Dr Veitch in Part A of this Interim Report, the original source of infection in this outbreak was most likely to have been one (or both) of two inpatients who were admitted to the NWRH with COVID-19 acquired on a cruise ship, the Ruby Princess.

The outbreak has only recently been brought back under control, due in large part to unprecedented decision making to close the hospital settings that were at the heart of the outbreak, and the hard work and dedication of our healthcare workforce to plan, execute and implement the closure and recommissioning of the hospital sites. Another significant contributor to controlling the outbreak has been our North West staff’s determination to positively adhere to a 14-day period of quarantine together with their families and household members for the benefit of the Tasmanian community.

I am informed that it is customary and best practice in outbreak management to prepare early epidemiological findings so that immediate contributing factors and actions can be recognised and acted upon. This is critically important in this case, as the outbreak has occurred in the initial phase of Tasmania’s experience of the Covid-19 global pandemic and another outbreak may occur in future at the same or in a different healthcare setting, should these factors not be recognised and improvements made. However alongside epidemiological findings, we must also take into account the experience of the hospital system itself, its learnings and specialist advice, and the reality that our Tasmanian Health Service (THS) is learning, in real time, alongside their healthcare colleagues around the world, how to best manage, treat and address Covid-19.

In a matter of days, the THS has rapidly stood up to face an unprecedented pandemic, of a size, scale, speed and devastating mortal impact that we are now witnessing globally. As a jurisdiction we are not alone in falling victim to a devastating hospital outbreak, and we certainly did not foresee one of the size and magnitude that has occurred in North-West Tasmania. The purpose of this Interim Report is not therefore to criticise the behaviours of any individual, or to apportion blame, but instead to own the lessons learned about this new and extremely infectious disease and to share these across our Tasmanian Health system so that we may do our very best to avoid a similar outbreak in future.



Ready access to Personal Protective Equipment (PPE) remains a critical priority within our hospital workplaces and I am committed to ensuring our staff receive regular updates on our statewide PPE supply which is meeting current usage; the large orders we have placed to guarantee supply; our daily distribution model to ensure security of PPE within hospitals; and our training, auditing and checking mechanisms to ensure that PPE is being worn appropriately at the right time and in the right situation in accordance with national guidance and local specialist infection control advice.

Further and more formal review of this outbreak will be undertaken at a later stage to support any future Independent Inquiry into the NWRH Outbreak, as required.

Prior to commenting on the recommendations, I wish to provide a brief account of the health system context prior to and during the outbreak, drawing in part from material contained in this Report and my own observations as State Health Commander.

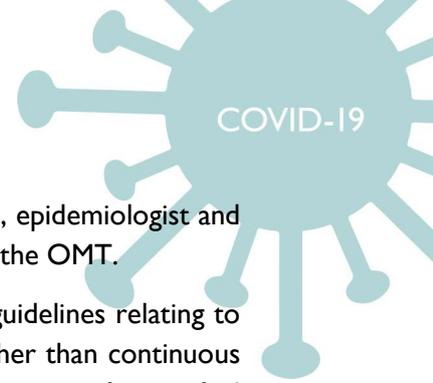
Health System Context During the Outbreak

Three cases of COVID-19 in healthcare workers at the NWRH were notified to Public Health Services between Friday 3 April 2020 (two cases) and Saturday 4 April 2020 (one case).

An Incident Management Team was established by myself, as State Health Commander (Secretary of the Department of Health) in the THS following notification of the first case on Friday 3 April 2020, initially led by the Chief Medical Officer and including local North-West senior medical and nursing clinical leads, reporting to the THS Emergency Operations Centre (EOC). Following further advice from Public Health Services late on Saturday 4 April 2020 (9.30pm), the acting State Health Commander gave instructions to establish an Outbreak Management Team (OMT), diverting further resources to the North-West to assist with contact tracing and provide on the ground support for the response. Throughout this period, the OMT were in daily contact with Public Health regarding case management, and with the THS EOC and Health Emergency Coordination Centre (ECC) to report on progress and issues faced in manually accessing and interpreting voluminous paper clinical and HR records relating to each case. Following preliminary findings with respect to close contact tracing and the number of close contacts identified relating to the initial cases (total of four cases by Sunday 5 April), admission of new patients to the medical and surgical wards of North West Regional Hospital ceased. On Sunday 5 April a dedicated senior Public Health Physician/Epidemiologist, a Public Health Registrar and a senior Public Health Nurse were allocated to support the OMT.

Cases among staff and patients within the NWRH and related facilities continued to increase (two further cases on Monday 6 April, six further cases on Tuesday 7 April, and three further cases on Wednesday 8 April). Police assistance was called in to support contact tracing efforts on Monday 6 April. Service reconfiguration changes were also made: Ambulance Tasmania presentations from Devonport eastwards were to be transported directly to the Launceston General Hospital; patient transfers could only occur with the approval of the Executive Director of Medical Services North West; and access by visitors ceased at NWRH and Mersey Community Hospital (MCH) from 6pm on 6 April. Visitor restrictions to hospitals and aged care facilities were extended statewide on Tuesday 7 April 2020. On 7 April, specialist Infectious Disease physician support for the North West was secured.

By Wednesday 8 April, the continued viability of full service provision at NWRH required constant senior management engagement and monitoring. The NWRH moved to level three of its THS North West COVID-19 Escalation Management Plan. Further service changes were made, including closing the medical and surgical wards at NWRH to all new admissions; and shifting the boundary from Devonport to Ulverstone for Ambulance Tasmania presentations to be transported to Launceston General Hospital. On Thursday 9



April a specialist team from Public Health Services, comprising a public health physician, epidemiologist and clinical nurse consultant travelled to the NWRH to provide on the ground support for the OMT.

On Thursday 9 April, the OMT were advised by Public Health Services that national guidelines relating to the definition of a close contact had been reinterpreted to 15 minutes cumulative rather than continuous face-to-face contact, dramatically impacting the number of close contacts captured in tracing for notified cases. Advice was sought from the PHS Medical Advisor on whether this change should be applied retrospectively to identify contacts of those cases already identified. The advice received was that it should be applied prospectively, however it would need to be applied retrospectively in high-risk settings. Contact tracing interviews to date had been structured to assess continuous contact and no determination could be made from existing interview reports to assess cumulative contact. As such, it was determined that all staff on the medical and surgical wards constituted employees in a high risk setting to which the retrospective change in contact tracing methodology should apply.

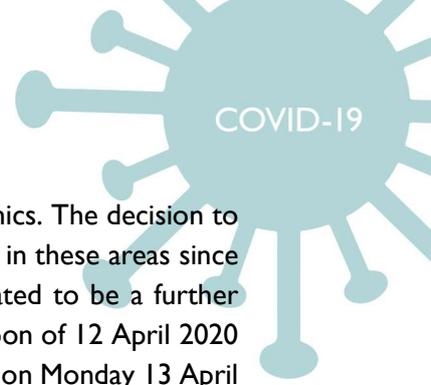
At this point, on advice from the OMT, CMO and Health ECC, in recognition of the volume of work required to retrospectively assess all medical and surgical ward staff for contact status, on Friday 10 April as State Health Commander I determined to:

- approve the escalation of the NWRH to level 4 of their escalation plan;
- request the direction of all remaining staff from the medical and surgical wards at the NWRH to self-isolate for a period of 14 days;
- provide options for alternative accommodation for healthcare workers and testing;
- close the Emergency Department and the Close Observation Unit at the MCH (to better support resourcing of the ED at NRWH);
- Initiate ambulance bypass of the MCH and diversion of cases eastwards of Penguin to the LGH;
- take operational control of the North West Private Hospital (NWPH) for the purpose of outbreak management and expand the Outbreak Management Team's remit to cover both NWRH and NWPH as a single site; and
- direct that no transfer of patients to or from NWPH occur.

A further 10 cases relating to the outbreak were notified on the evening of Friday 10 April.

On Saturday 11 April, the Director of Public Health ordered all household members of quarantining staff to be quarantined for the same time period as the staff member, and all patients (discharged since 27 March 2020) and their households to be quarantined for 14 days following discharge. Senior leads from the Department of Primary Industries, Parks, Water and the Environment joined the OMT at NWRH to provide further assistance. Options relating to the continued viability of the NWRH and NWPH sites were actively considered and refined throughout Saturday 11 April 2020, with the conclusion being reached during that day that services were on the brink of being unable to be delivered safely and sustainably. A recommendation from the CMO to close both hospital sites together with a decant and quarantine execution plan was approved by myself as the State Health Commander, following consultation with key clinical leaders and stakeholders (including the THS EOC, Acting Chief Executive Ambulance Tasmania, Director of Public Health, Deputy Director of Public Health, State Controller and Deputy State Controller) and the Premier and Minister for Health were given a briefing.

By Sunday 12 April cases had been notified among staff and patients in most clinical areas of the NWRH and NWPH precincts. These included clinical areas within the NWRH (medical, surgical and mental health wards,



operating theatres), the NWPH, and in staff of the pathology service and outpatient clinics. The decision to close the two hospitals and related medical services and place all staff who had worked in these areas since 27 March (approximately 1300 staff members), and their household members (estimated to be a further 3000 - 4000 people), into quarantine for 14 days, was publicly announced in the afternoon of 12 April 2020 (Easter Sunday), with execution of the decant and quarantine orders to commence 7am on Monday 13 April 2020.

By 21 April, a total of 114 people had acquired COVID-19 associated with the North West outbreak comprising 73 staff members, 22 patients, and 19 others including household contacts.

Recommendations and Next Steps

I note the Public Health Services Interim Report recommendations which have been briefly outlined at the conclusion of Part A of this Interim Report.

Each of these recommendations has been incorporated into the advice of the Chief Medical Officer, Professor Anthony Lawler in Part B of this Interim Report.

I endorse each of the recommendations proposed by Professor Lawler and commit to their implementation, subject to acceptance by Government, in the North West THS and where relevant statewide. I also note the short timeframe in which these recommendations have been prepared and that further consultation with staff in relation to the implementation will be undertaken as we progress.

I will direct the Health Emergency Coordination Centre to monitor the implementation of these recommendations, if accepted.

In closing, I express my deepest and heartfelt sympathy to the families that have lost loved ones in this outbreak and in the Covid-19 pandemic.

I commend to you, as Minister for Health, these recommendations to be applied across our healthcare system for the benefit of the Tasmanian community.

Yours sincerely,

Kathrine Morgan-Wicks
COVID-19 State Health Commander
Secretary, Department of Health

29 April 2020



Contents

Part A – Public Health Services Interim Report - Preliminary analysis of the COVID-19 outbreak in a Tasmanian healthcare setting..... 8

Part B - Letter from the Chief Medical Officer..... 17

Tasmanian Health Service - North West Outbreak - Recommendations.....18



Part A – Public Health Services Interim Report - Preliminary analysis of the COVID-19 outbreak in a Tasmanian healthcare setting

Prepared by:

Public Health Services

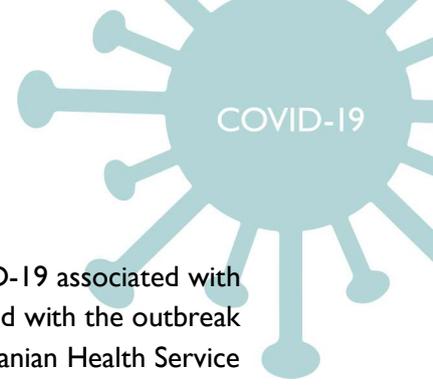
Authorised by:

Mark Veitch, Director of Public Health

Scott McKeown, Deputy Director of Public Health

29 April 2020 (revised)

This is an initial report based on the data and reports available at Tuesday 21 April 2020. The situation and responses are ongoing, data, and the interpretation of the data could change as the situation evolves.



Executive Summary

This is a preliminary report by Public Health Services (PHS) on the outbreak of COVID-19 associated with healthcare facilities in the Northwest Region of Tasmania. The first staff cases associated with the outbreak were notified to Public Health Services (PHS) on 3 April 2020. PHS informed the Tasmanian Health Service (THS) that day. The THS established Incident Management and Outbreak Management Teams which were supported by PHS from the outset, including the dedication of senior PHS staff to these roles.

This report compiles information from the epidemiological investigation based on detailed interviews with cases. It is intended to complement other Tasmanian Health Service and Department of Health evaluations of the outbreak and its management, which are ongoing. The aims are to (1) describe the outbreak and (2) identify key areas where review of policies and processes are likely to be helpful for the management of future healthcare related outbreaks.

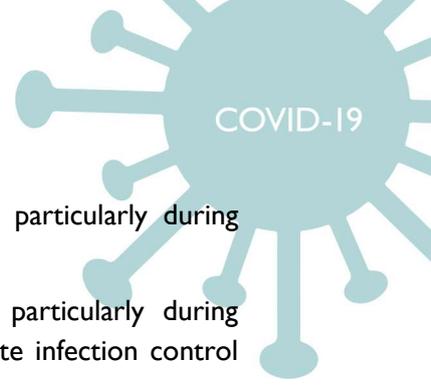
As at 21 April, a total of 114 people had acquired COVID-19 in association with the NW outbreak, comprising 73 staff members, 22 patients, and 19 others including household contacts. The original source of infection was most likely to have been one (or both) of two inpatients who were admitted to the NWRH with COVID-19 acquired on a cruise ship, the Ruby Princess. Of the initial cases amongst staff at least one was a healthcare worker who had provided care directly to one of these patients. Following these initial infections, multiple potential chains of direct person-to-person transmission were apparent. These were between staff, or between staff and patients (in both directions). These transmission events occurred within the different northwest healthcare facilities through either the transfer of infectious patients or through infectious staff working in multiple locations including aged care facilities.

Factors that may have enhanced person-to-person transmission in this setting were:

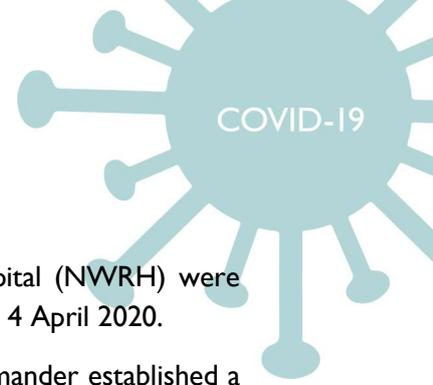
- Staff attending and continuing to work while experiencing respiratory symptoms
- Workplace activities such as regular staff gatherings with people in confined spaces
- Any shortcomings in infection control practices which may have enabled transmission of this very infectious agent in high-risk settings
- Incomplete or delayed identification of close contacts of confirmed COVID-19 cases for immediate isolation to limit further transmission
- High levels of staff mobility between different healthcare facilities
- Transfer of undiagnosed infectious or incubating patients between healthcare facilities

Actions, including actions underway, that will mitigate risk in Tasmanian Health Service settings include:

- Strengthening the culture of safety regarding infection control practices including optimising standard and transmission-based precautions.
- Implementing procedural changes to strengthen social distancing in the hospital workplace (e.g. meal breaks, meetings, ward rounds, handovers and other work-related activities).
- Addressing the drivers of presenteeism and implementing processes to prevent this, such as those contained in the Hospitals Directions No. 2 (of 17 April 2020) including screening all people, including staff, for symptoms on entry to the workplace.
- Increasing human resources and information technology systems to enable immediate contact tracing for both infected patients and staff in every healthcare facility. This needs to be rapidly scalable.



- Reducing the movement of staff between facilities where this is possible, and particularly during outbreaks.
- Minimising patient transfer within facilities and between healthcare facilities, particularly during outbreaks. When transfer is necessary, assess the risk and implement appropriate infection control precautions.



Introduction

Three cases of COVID-19 in healthcare workers at the North West Regional Hospital (NWRH) were notified to the Communicable Diseases Prevention Unit between Friday 3 and Saturday 4 April 2020.

PHS informed the Tasmanian Health Service (THS) on 3 April. The State Health Commander established a Tasmanian Health Service (THS) Incident Management Team and Outbreak Management Team. Public Health Services (PHS) provided extensive ongoing support on 3 and 4 April and from 5 April dedicated a senior Public Health Physician/Epidemiologist, a Public Health Registrar and a senior Public Health Nurse to these roles.

Cases amongst staff and patients within the hospital and related facilities increased over the following days. Actions during this period included contact tracing, closure of the medical surgical wards of the NWRH to new admissions, visitor restrictions and diversion of ambulances. Further details of these and other actions will be included in the THS account of this outbreak.

On 9 April a team from PHS, comprising a Public Health Physician, Epidemiologist and Clinical Nurse Consultant travelled to the North West Regional Hospital (NWRH) to support the Outbreak Management Team.

By 12 April cases had been notified among staff and patients in most clinical areas of the NWRH precinct. These included clinical areas within the NWRH (medical, surgical and mental health wards, operating theatres), the North West Private Hospital (NWRPH), and in staff of the pathology service and outpatient clinics. The decision was made to close the two hospitals and related medical services and place all staff who had worked in these areas since 27 March, and their household members, into quarantine for 14 days.

By the 21 April, a total of 114 people had acquired COVID-19 associated with the outbreak comprising 73 staff members, 22 patients, and 19 others including household contacts.

This report summarises the public health data obtained from confirmed cases associated with the outbreak and discusses these in the context of lessons learned that could inform the response to future COVID-19 and other outbreaks in Tasmanian healthcare facilities.

Epidemiological investigation

Cases were defined as persons with microbiological confirmation of COVID-19 with onset of symptoms on or after 19 March 2020 who lived in the northwest region of Tasmania and/or had a direct or indirect epidemiological link to the North West Regional Hospital (NWRH), North West Private Hospital (NWRPH), or Mersey Community Hospital (MCH).

Figure 1 shows the timeline of the outbreak including dates of selected key events and dates of onset of illness for all cases. It includes two index cases with COVID-19 who were admitted to the medical ward of the NWRH on March 20 and 26.

This demonstrates rapid escalation in the number of cases consistent with amplification of the number of cases through several cycles of infection, and a fall in the numbers of new cases following quarantining of staff and closure of the hospitals.

It was ultimately determined that 11 cases associated with the outbreak had already experienced symptoms of COVID-19 by the time the first two (non-cruise ship) cases were notified to PHS.

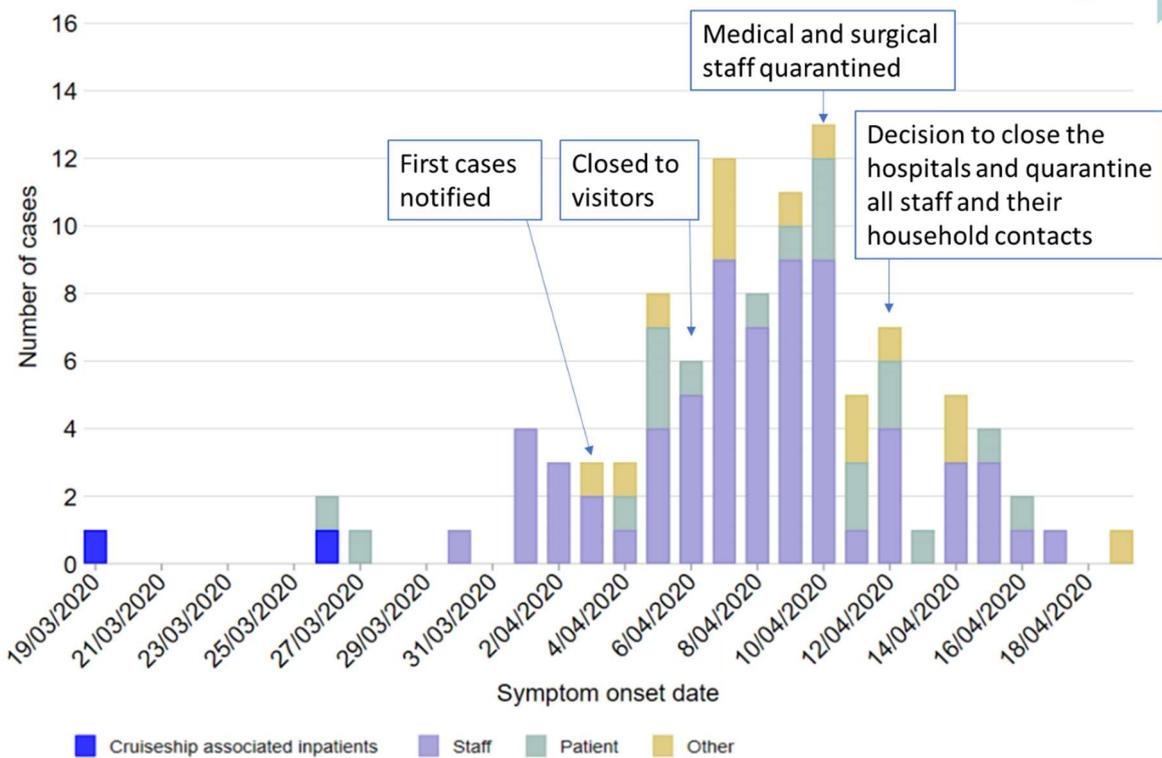
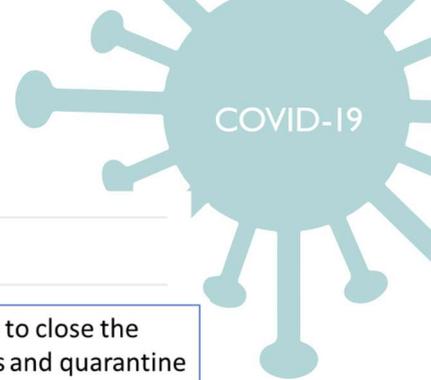


Figure 1. Cases of COVID-19 associated with the North West outbreak, by date of symptom onset. Staff includes medical, nursing, allied health, administrative, management, technicians, logistics, support, cleaning, and other. Other includes household contacts. The date of onset of symptoms for patients on 26 and 27 March are uncertain due to complexities in the underlying clinical picture.

Staff cases were most often women aged less than 50 years, while the majority of cases among patients were in men aged 50 year or older (Table 1).

Among all confirmed cases, the median duration of symptoms prior to notification was 3 days (range 1 to 14 days). The median period of infectiousness, based on the number of days from onset of infectious period to the notification date, was 5 days (range 3 to 16 days). There was one outlying case which is not included in the above figures. This was an inpatient who had prolonged course with fluctuating respiratory symptoms before being diagnosed with COVID-19 while in hospital. In this instance the duration between the onset of symptoms and notification date was recorded as being 22 days, but it is possible that the initial symptoms were not due to COVID-19.

Among the 73 staff members:

- The majority, (77%) attended work during their infectious period. This period was defined as from 48 hours before the onset of symptoms, until date of testing, when they were required to be isolated.
- About half (51%) did not attend work while symptomatic, about a third (29%) had symptoms on the same day as their last day at work, and a fifth (20%) attended work on one or more days after the date of onset of their symptoms with (range 1 to 7 days). Some staff with longer durations of continued attendance attributed their symptoms to other chronic respiratory conditions, and not to COVID-19.
- The median number of different clinical healthcare settings where staff worked during their infectious period was 1 (range 1 to 7).

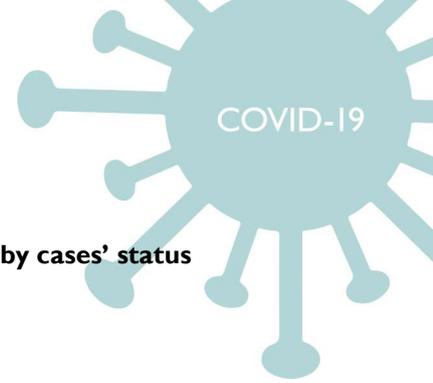


Table 1. Confirmed cases of COVID-19 diagnosed and managed in Tasmania by cases' status associated with the North West Outbreak by age group and sex

	Staff	Patient	Other	Total
Age group				
0-9	0	0	0	0
10-19	1	0	5	6
20-29	18	0	2	20
30-39	18	0	3	21
40-49	10	1	1	12
50-59	17	3	1	21
60-69	8	2	2	12
70-79	1	9	2	12
80-89	0	5	1	6
90+	0	2	0	2
Gender				
Female	57	7	9	73
Male	16	15	10	41
Total	73	22	19	114

Possible pathways of transmission

On detailed review of case notes in relation to occupation, activities, location of work and timing of onset it was possible to identify several likely pathways for transmission of the virus through the Northwest hospitals. Several distinct clusters and potential pathways of transmission were identified. Cases linked with the outbreak were identified in most areas of the NWRH, including the medical, surgical and mental health wards, the emergency department and operating theatres. Cases also occurred in the North West Private Hospital. Affected staff worked in many areas, including facilities in the co-located medical precinct such as pathology collection and outpatient services, the Mersey Community Hospital in Latrobe, and in aged care facilities in the Northwest Region.

Identified clusters included:

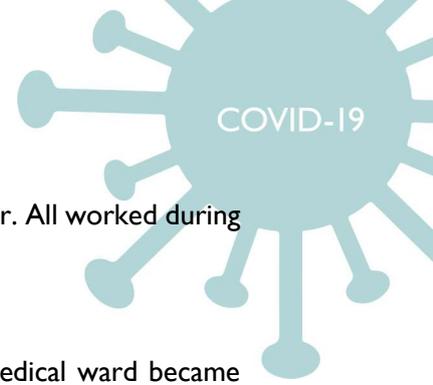
1. Early cases

Several healthcare workers on the NWRH medical ward had onset of their symptoms between 29 March and 2 April 2020. At least one recalled nursing one of the index cases with COVID-19 on the ward in the 14 days before their illness. Some worked while symptomatic for up to six days. An additional nurse on the same ward developed symptoms during this same period but was uncertain if they had nursed the patients with COVID-19. This nurse did not attend work during their infectious period.

While identifying these as early staff cases, we cannot exclude the possibility of an earlier but missed healthcare worker case.

2. Medical – Allied Health morning meetings/handover on NWRH Medical Ward

Other early cases were clustered among allied health, discharge planning, psychiatric staff, and a doctor, one of whom had provided direct care for a patient subsequently identified as having been in the infectious period



for COVID-19. All worked on the medical ward and attended morning medical handover. All worked during their infectious period.

3. *NWRH Medical Ward Nursing Staff*

Three to seven days after the first cluster, another group of twelve nurses on the medical ward became symptomatic. Their dates of symptom onset suggest that the likely source of their infection was transmission from one or more of the 3 early cases among staff.

4. *Inpatients of NW Healthcare Facilities*

A total of 14 inpatients have been confirmed to have COVID-19. While some cases became symptomatic whilst inpatients in either MCH or NWPH, all except one patient spent time as an inpatient at NWRH during their acquisition period. The one exception spent time in the North West Private Hospital and the source of infection for this case remains unclear.

5. *Clusters amongst attendees of regular meetings*

Several clusters were identified among attendees of regular meetings, such as administrative or clinical planning meetings. These included senior clinicians with liaison roles.

Close contacts

Of the remaining cases, 17 were identified as close contacts (including household contacts) of confirmed cases.

Missed contacts

There were instances when close contacts were not identified following the diagnosis of a confirmed case of COVID-19. For example, in at least two instances staff who provided medical and nursing care to patients who were in their infectious period, one at NWRH and one at MCH, were not identified as close contacts but later became confirmed cases. In one instance a doctor was advised they did not meet the definition of a close contact of a newly diagnosed case in a patient and could continue to work. However, this case chose to get tested and self-isolate. In another instance a member of nursing staff was missed as a close contact because, as relieving staff, they were not named on the roster.

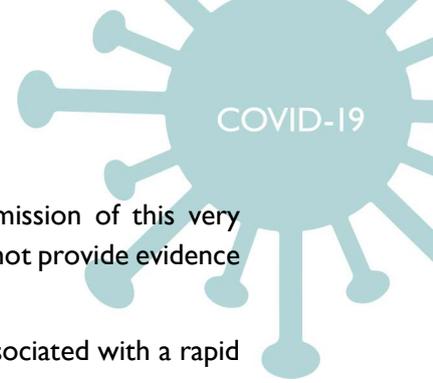
Risks unrelated to the workplace

Each case file was reviewed to identify potential gatherings or risk activities unrelated to the workplace. There was no documented evidence of social gatherings outside the workplace by any of the cases. The largest gathering reported by any case involved three people, and that consisted of one HCW and social (non-work) friends or family members. We note several unconfirmed reports of social gatherings, and some reports of inadequate social distancing amongst staff within the workplace. However, we did not find evidence in case interviews that social gatherings outside of work settings contributed to this outbreak.

Summary

This outbreak was characterised by rapid person-to-person spread amongst staff, with further transmission to patients and household contacts. Factors that potentially contributed to this outbreak included:

- Based on the timing of the onset of symptoms, the outbreak likely began with transmission of infection from a known COVID-19 patient to healthcare staff and to patients on the medical ward.

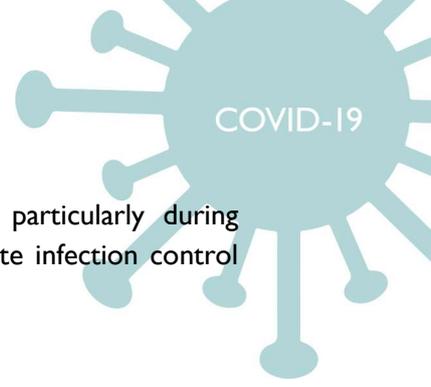


- While any shortcomings in infection control practices may have enabled transmission of this very infectious agent in a high-risk setting, this descriptive epidemiological account does not provide evidence of specific infection control breaches that contributed to transmission.
- The actions of quarantining staff and patients, and closure of the hospitals were associated with a rapid reduction in the number of new cases over the following days.
- Many infectious staff cases (20%) worked for several days whilst experiencing symptoms of COVID-19.
- A high attack rate was associated with meetings with staff in confined spaces, such as nursing handovers and discharge planning.
- There were several instances when the identification of close contacts was likely to have been incomplete or slowed by the need to locate and interrogate multiple ICT systems, databases and paper records to reconstruct a single patient record or staffing profile on any one day in a particular ward. These indicate the need to establish, resource (with human resources and information technology systems), and train teams to enable immediate responses; and to upgrade over time existing manual and paper-based records. This will enable timely, informed decisions and actions to prevent further transmission from contacts who may become cases in healthcare settings;
- Many infectious staff were highly mobile within the health facilities or worked in two or three hospitals at different times. This resulted in transmission within multiple settings within and beyond the NWRH.
- Transfer of infectious patients between facilities. Transfers of patients not yet diagnosed with COVID-19 from the NWRH to the NWPH or MCH while incubating or infectious with COVID-19 was documented.

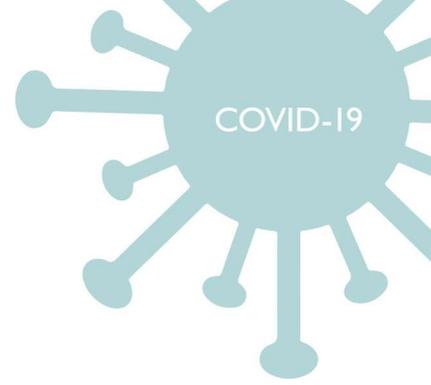
Recommendations

The following areas are worthy of consideration in further analyses of underlying factors that contributed to this large outbreak, and for future management and control of COVID-19 in Tasmanian healthcare settings:

- Work to strengthen the culture of safety regarding infection control practices including optimising standard and transmission-based precautions through increased infection prevention and control resourcing and staff education.
- Ensure clear governance arrangements for managing future outbreaks in healthcare settings, including dedicated teams for outbreak control whose members are skilled in the rapid tasks required to manage outbreaks, especially the identification and furloughing of close contacts.
- Consider the underlying drivers of staff presenting to work whilst unwell with respiratory illness and implement strategies to minimise this.
- Enhance and optimise screening of all staff and visitors on entry to the facility (e.g. use of a screening questionnaire) and do so particularly actively during outbreaks. While it may be impossible to identify and exclude people before they become ill, some of these potentially infectious persons may be identified by thorough contact tracing of prior cases.
- Implement structural and cultural changes to strengthen social distancing within healthcare workplaces (e.g. meal breaks, meetings, ward rounds, other work-related activities), particularly during outbreaks.
- Reduce the movement of staff between facilities where this is possible, particularly during outbreaks.



- Minimise unnecessary patient transfer within facilities and between facilities, particularly during outbreaks. When transfer is necessary, assess the risk and implement appropriate infection control precautions.



Part B - Letter from the Chief Medical Officer

Kathrine Morgan-Wicks
COVID-19 State Health Commander
Secretary, Department of Health

Secretary,

Thank you for providing the epidemiological report prepared by Public Health Services, which examines the likely processes of transmission leading to the outbreak of COVID-19 at the North West Regional and North West Private Hospitals, and for the opportunity to provide you with recommendations arising from the outbreak.

While the PHS Report provides an account of some of the key features of the outbreak, it does not- and nor should it, given its scope- reflect on or outline many of the key responses undertaken by the hospitals in the North West, the Tasmanian Health Service and the Department of Health in order to respond to the outbreak and maintain health services that are both sustainable and safe for the Tasmanian community.

In reviewing the Public Health Services epidemiological report, the feedback provided during the Hot Debrief undertaken by key Department of Health, Tasmanian Health Service and Public Health Services stakeholders, advice I have previously provided to you regarding the closure of the NWRH and NWPH and the subsequent role of pre-return to work testing, and observations by experts involved in the response, I provide the following recommendations to further strengthen structures, processes and culture, in order both to reduce the likelihood of future outbreaks in Tasmanian hospitals, and to ensure a timely and appropriate response to future outbreaks, should they occur.

I have arranged the recommendations into three sections- Structure and Resourcing, Process and Practice, and Culture and Behaviour.

A final comment before the recommendations- throughout the outbreak the diligence, professionalism and commitment of all staff involved was always on display. The resilience of staff at all affected facilities and services needs to be acknowledged, and the community should be proud of the service provided under incredibly difficult circumstances.

Professor Anthony Lawler, MB BS, FACEM, GAICD, AFRACMA
Chief Medical Officer
Deputy Secretary, Clinical Quality, Regulation and Accreditation.

28 April 2020

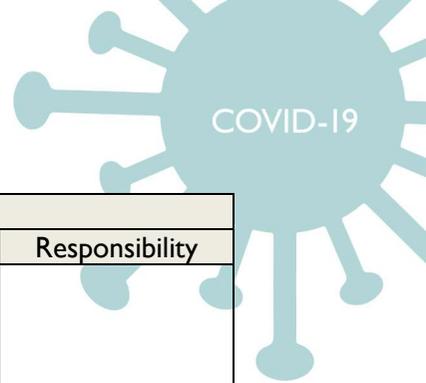


Tasmanian Health Service – North West Outbreak - Recommendations

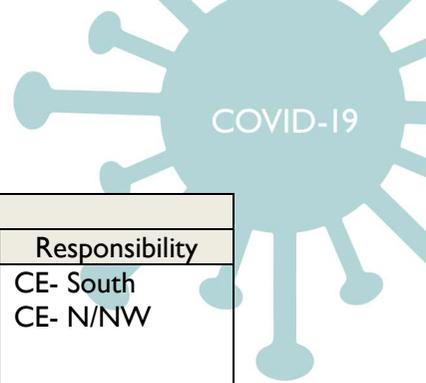
Structure and Resourcing

This section analyses the structural and resourcing issues that may be addressed in order to prevent the likelihood of or respond more quickly to the development of an outbreak. This will require action centrally and at the local hospital level, and will also require investment in medical, nursing and support staff.

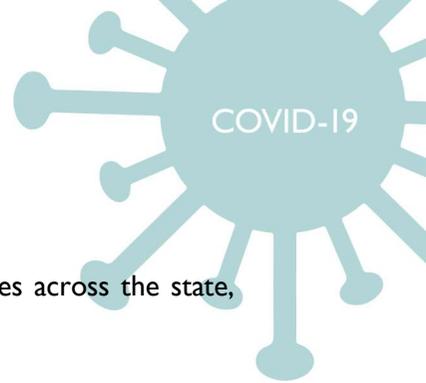
Structure and Resourcing		
Recommendation	Rationale and Comment	Responsibility
1. Develop strategies to reduce the unnecessary movement of staff between facilities, particularly during outbreaks	<p>The PHS Epidemiological Report identified that the movement of staff between the NWRH, NWPH and MCH contributed to the rapid and significant spread of infection, especially given the infectious period precedes symptom development by up to 48 hours.</p> <p>Consideration should be given to reducing the movement of staff between facilities where this is possible, particularly during outbreaks. This must include consideration of staff working across multiple public facilities, between public and private hospitals, and in other sectors (eg education, aged care, primary health).</p> <p>This is particularly the case for staff who are providing care to known COVID-positive patients.</p>	CPO CE- South CE- N/NW
2. Resource Infection Prevention and Control and Infectious Diseases services in the North West	<p>The recent outbreak on the North West has demonstrated the need for further investment in both Infection Prevention and Control services and Infectious Diseases specialist service across the North West region.</p>	CE N/NW IPC ID EDMS-NW EDON-NW



Structure and Resourcing		
Recommendation	Rationale and Comment	Responsibility
	<p>These resources include:</p> <ul style="list-style-type: none"> • <u>Dedicated on-site ID physician</u> for the NWRH and MCH, initially for a fixed-term six month period with extension for the duration of the pandemic, and later consideration of permanency. This role would provide ID consultative support to the NWRH and the MCH, support the IPC service and clinical units/services, sit on key committees, and support the development of protocols and guidelines. On-call support would be provided by the LGH ID Service (1:4) • <u>Dedicated registered nurses with “COVID-19 Project Roles” at both NWRH and MCH</u> working with the current IPC staff within each site. The role would provide key COVID-19 liaison/support for the clinical areas, and a PPE ‘coach’ role which would allow for support both during business hours and after hours seven days/week. These dedicated FTE resources could be initially considered as fixed-term six-month positions with consideration for extension if required • <u>Dedicated 1 FTE Infection Control Clinical Nurse Educator</u> across the MCH and NWRH to support the provision of education/training relating to infection prevention and control across multidisciplinary healthcare workforce including nursing, medical and allied health professionals. This dedicated role would work with the IPC service and assist with the development and delivery of training resources. <p>There should also be consideration of the adequacy of the current resourcing across the NW for:</p> <ul style="list-style-type: none"> • Occupational health • Environmental cleaning • Primary health IPC 	
3. Clearly describe the structure, roles and resources required for the Outbreak Management Team	The outbreak at the NWRH and NWPH required the mobilisation of an Outbreak Management Team (OMT) from elsewhere in the state and from other agencies. Early changes in governance of the OMT and the quarantining of team members impacted the function of the team.	CMO PHS IC THSEOC Cmdr



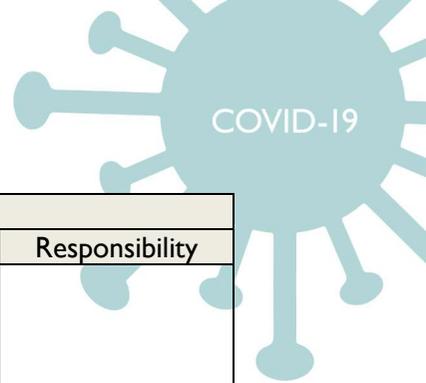
Structure and Resourcing		
Recommendation	Rationale and Comment	Responsibility
	<p>Experience indicates the need to establish, resource and train teams to enable immediate responses that prevent further transmission from new cases in healthcare settings.</p> <p>Work should be undertaken to ensure clear governance arrangements for the OMT managing future outbreaks in healthcare settings. This will include, as a minimum:</p> <ul style="list-style-type: none"> • members who are skilled in the rapid tasks required to manage outbreaks, including <ul style="list-style-type: none"> ○ the relevant contemporary national and local guidelines governing the identification and furloughing of close contacts ○ interpretation of rosters and patient/ward lists ○ local context understanding • structure and reporting lines, both within the OMT and in connection to the ECC and local hospital Executive • roles descriptions for key members <p>An effective OMT will include members from the DoH, THS, the local health facility and PHS. This may be augmented by other members, both from within and outside of health.</p> <p>Key individuals should be identified now as appropriate to members of future OMT, and training should occur to prepare. This would include key individuals at each health facility.</p>	<p>CE- South CE- N/NW</p>



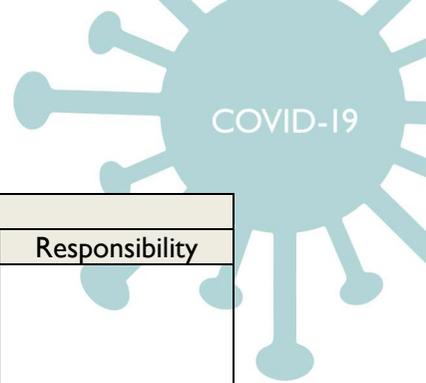
Process and Practice

Revised processes will decrease the likelihood of transmission. While some of these processes are already in place to varying degrees across the state, consistency should be sought unless there are compelling reasons for local variation.

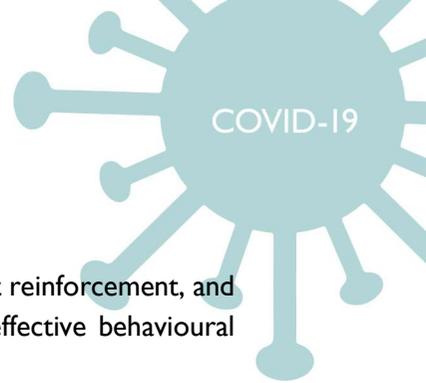
Process and Practice		
Recommendation	Rationale and Comment	Responsibility
4. Implement consistent staff and visitor screening processes to ensure that any person with respiratory illness does not enter the facility	<p>While screening processes have been introduced at the state's major hospitals, there should be robust screening processes for all people (staff and visitors) entering public and private health facilities in Tasmania. This should include rural inpatient facilities.</p> <p>Screening processes should be consistently applied across the state. This may include the use of a screening questionnaire and temperature screening, and may include the exploration of online screening questionnaires.</p>	CE- South CE- N/NW CMO Primary health managers PHS
5. Establish processes governing patient transfers between facilities	<p>Where possible, unnecessary transfers between (and within) health facilities should be minimised, particularly during outbreaks. Transfers between facilities (either public-public or between public and private) should only be undertaken when absolutely necessary for the patient's clinical care, or to align with the Tasmanian Role Delineation Framework.</p> <p>Where transfer is necessary, clinical and infection control risk should be assessed, and transfer and subsequent care should be undertaken with appropriate infection control precautions. Transfer protocols will be reviewed regularly in response to changes in local disease prevalence.</p>	EDMSS AT AT-AMR
6. Develop a formal Outbreak Management Plan	<p>In conjunction with the development of the roles and function of the OMT (Recommendation 3 above), a formal Outbreak Management Plan should be developed, that can be applied rapidly and consistently should other outbreaks occur in Tasmanian hospitals</p> <p>This would include, as a minimum,</p> <ul style="list-style-type: none"> • Key membership of the OMT • Key roles of the OMT • Resources required to undertake role 	CMO DCMO PHS THSEOC Cmdr ID IPC



Process and Practice		
Recommendation	Rationale and Comment	Responsibility
	<ul style="list-style-type: none"> • Delineation of responsibility between OMT, PHS, ECC, Regional Health Emergency Management Team (RHEMT) and relevant hospital Executive • Linkages with other services • Responsibility for contact tracing, staff welfare, and key communications • Local support required (accommodation, information technology etc). 	
7. Develop clear, consistent and documented processes and responsibilities for the tracing and management of contacts for patients, staff and community	<p>Evolving practices and responsibilities with respect to contact tracing of patients, staff members and community members should be clarified. This was complicated by the national reinterpretation of the definition of “close contact” during the outbreak, and changes to the function and composition of the OMT.</p> <p>While roles have been clarified, there should be clearly documented and agreed processes and responsibilities/accountabilities relating to contact tracing for all relevant groups (staff, patients and community cases).</p> <p>While this will be key to the functioning of an OMT (should another outbreak occur), it is also relevant in the management of isolated infections.</p> <p>This will also enable training of relevant staff in contact tracing, and ensure each facility has a nominated “on-the-ground” liaison to provide essential local context.</p> <p>Processes will incorporate appropriate attention to the welfare of infected staff members and those requiring quarantine.</p>	PHS CMO DCMO IPC ID
8. Clarify statewide Return to Work (RTW) processes for COVID-positive and quarantined contacts	<p>A comprehensive RTW process has been established for North West staff returning from quarantine.</p> <p>In the event of another outbreak elsewhere in the state, or in the case of isolated exposures or infections, there should be a formalised prospectively determined and agreed RTW process for two key group:</p> <ul style="list-style-type: none"> • Staff who are isolating due to returning a positive test for coronavirus 	PHS CMO CPO



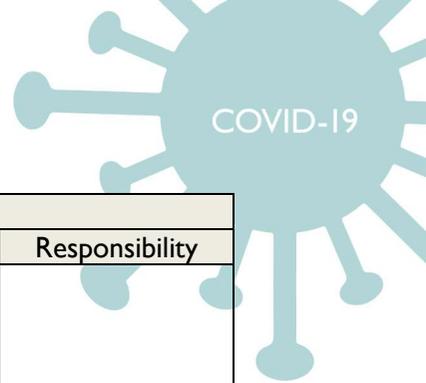
Process and Practice		
Recommendation	Rationale and Comment	Responsibility
	<ul style="list-style-type: none"> Staff who have been quarantined due to being identified as close contacts, but have not returned a positive test. <p>As has occurred in the North West, clarity will be provided on a statewide basis (including in the absence of an outbreak) regarding the requirements to complete and emerge from quarantine (governed by the Series of National Guidelines on COVID-19 (SoNG)) and the requirements to return to work (as determined by the employer).</p> <p>Discussion between PHS, THS and the DoH will clarify these quarantine and RTW requirements.</p>	
9. Identify improvements necessary to facilitate a move away from paper systems	<p>The continued reliance on paper systems, including clinical records, rosters, and other records of staff and patient movement, hampered the timely management of potential close contacts.</p> <p>Possible mechanisms to move such records online for ease of access (including offsite) will be explored, including as part of the Human Resources Information System Replacement Project currently in progress.</p>	<p>CPO CMO EDMSs EDONs</p>



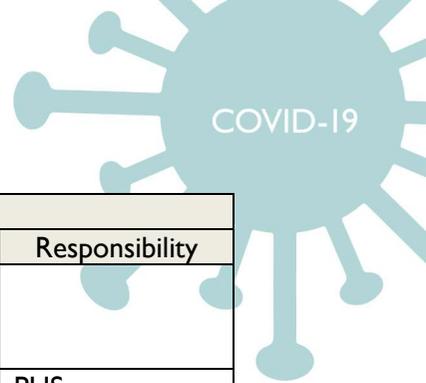
Culture and Behaviour

The development and encouragement of appropriate clinical and social behaviours in the workplace requires clear expectations, frequent reinforcement, and the engagement of local clinical leaders. There will also be a role in engaging key professional representative bodies in promoting effective behavioural preventative actions.

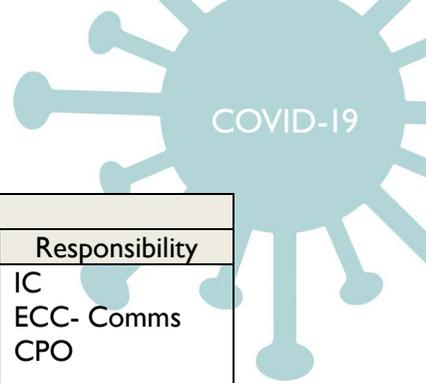
Culture and Behaviour		
Recommendation	Rationale and Comment	Responsibility
10. Evaluate and promote social distancing and proactive rostering	<p>The outbreak in the North West may have been exacerbated by inadequate observation of social distancing in the workplace. Anecdotally similar challenges exist in other hospitals in the state.</p> <p>Again, this presents challenges given the infectious period may precede the development of symptoms by up to 48 hours.</p> <p>A clear and consistent framework should be developed and provided to staff in relation to optimising social distancing within the workplace. This should include reference to:</p> <ul style="list-style-type: none"> • Clinical handover • Ward rounds and team meetings • Meal breaks • Management and committee meetings <p>In addition, consideration should be given at service/unit level to roster in a “protective” fashion to preserve capacity in the event that a staff member becomes infected, minimising the impact of transmission on ongoing service delivery. This may include nursing and/or medical teams being rostered on a home ward basis, or with alternating rosters (five days on, five days off)</p>	Clinical leaders EDMs EDONs
11. Identify drivers for presenteeism	<p>The PHS Epidemiological Report indicated that a significant proportion (20 per cent) of COVID-positive healthcare workers worked while symptomatic. This is multifactorial, and reasons include the desire of staff to not let colleagues down, mistaking the symptoms of COVID-19 for other conditions, or concerns over perceived resource constraints.</p>	Clinical leaders CE- South CE- N/NW CPO



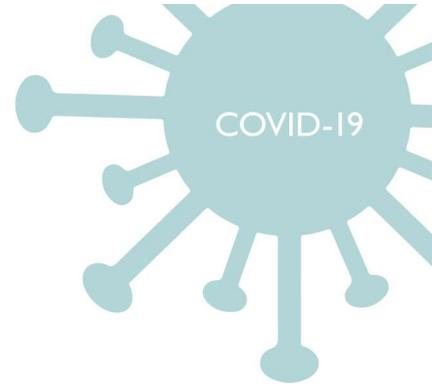
Culture and Behaviour		
Recommendation	Rationale and Comment	Responsibility
	<p>Work should be undertaken to consider and address the underlying drivers of staff presenting to work whilst unwell, particularly in displaying features of respiratory illness. This will require the engagement of local clinical and professional leads, as well as professional representative bodies.</p>	
<p>12. Regular audits are undertaken on Infection Preventions and Control (IPC) practices in Tasmania's hospitals</p>	<p>While the introduction and strengthening of education, training and PPE coaching/buddies will improve IPC practice, it is important to gain assurance that practice is in line with requirements.</p> <p>Conducting regular audits will assist in improving practice and identifying areas for improvement in training and education,</p> <p>Audits may include</p> <ul style="list-style-type: none"> • PPE utilisation, including donning, doffing, and understanding the requirements in different clinical environments • The frequency and quality of environmental cleaning 	<p>IPC ID EDMSs EDONs</p>
<p>13. Strengthen local and statewide Infection Prevention and Control (IPC) networks and culture</p>	<p>The role of IPC and ID advice in overarching hospital operations should be strengthened, in order to inform clinical practice. IPC representation is required within key committees/working groups to ensure consistency of approach across units/services and to provide support as required</p> <p>Greater IPC involvement would include:</p> <ul style="list-style-type: none"> • Inclusion of IPC representation in key clinical and organisational committees • Development of IPC support networks <ul style="list-style-type: none"> ○ Local North West IPC COVID-19 support network to be formally established with all key stakeholders involved and for regular meetings to be established. This will help to foster the IPC team and assist provision of support to individual team members in the management of the COVID-19 outbreak. ○ Statewide COVID-19 IPC support network to be considered across the public and private sector to facilitate the development of consistency of approaches, to promote 	<p>IPC ID CE- N/NW CE- S EDMSs EDONs</p>



Culture and Behaviour		
Recommendation	Rationale and Comment	Responsibility
	collaborative discussions and to provide professional support network.	
14. Improve processes for the timely and transparent sharing of information on transmission events with the health workforce	<p>Concerns were raised during the outbreak that staff became aware of disease transmission through social and other media before they had heard from their employer.</p> <p>While this is not ideal, it should be recognised that communication must be undertaken with due care for the privacy of the affected staff member, and that communication out-of-hours is difficult through official channels.</p> <p>The DoH and PHS will explore how to communicate such matters to staff in a more timely fashion, mindful of privacy constraints.</p>	PHS THS CPO
15. Develop and implement new mandatory training and education package that emphasises infection control and PPE use, and enhance communication with staff.	<p>State investment in PPE and appropriate use of local and stockpile PPE is ongoing, but these activities are not always visible to ‘frontline workers’.</p> <p>Initiatives to improve visibility include the following:</p> <ul style="list-style-type: none"> • Regular communication to staff regarding PPE levels • Development and consistent application of evidence-based framework for PPE use within clinical settings, consistent with relevant national guidelines • Provision of suitable education and training relating to appropriate PPE use <p>A “PPE coach/buddy” system to ensure that PPE is donned and doffed appropriate on every occasion and to support local compliance with guidelines.</p> <p>Additionally, as part of the RTW requirements for NWRH and NWPH staff quarantined (in addition to pre-return COVID-19 testing) there is a requirement for completion of both online and a face-to-face training in infection control practice, with particular focus on appropriate PPE utilisation.</p> <p>Consideration should be given to rolling this out to all clinical staff across the THS, with potential as “refresher” training.</p>	ID CPO CE- South CE- N/NW



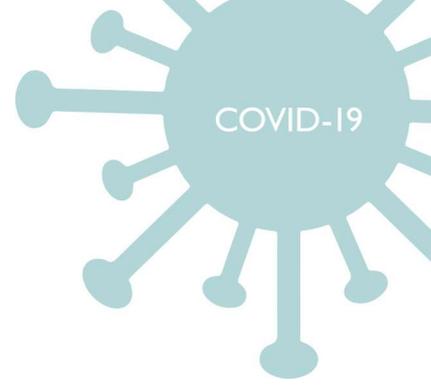
Culture and Behaviour		
Recommendation	Rationale and Comment	Responsibility
16. Maintain a strong communications strategy to keep staff informed	<p>Regular communication in the form of daily updates should continue to be provided to all healthcare staff relating specifically to COVID-19.</p> <p>These updates should include the current status of COVID-19 activity within the North West, the state/national perspective, any significant amendments to local practices/protocols, and any other specific issues that are relevant to include. This could be resourced with the resources requested above.</p>	IC ECC- Comms CPO
17. Staff wellbeing program	<p>A staff wellbeing and resilience program is currently being rolled out across the staff of the NWRH and MCH, in response to the experiences during the outbreak.</p>	CPO CMO CE- N/NW



Abbreviations used

AT- Ambulance Tasmania
AT-AMR- Ambulance Tasmania- Aeromedical and Retrieval Services
CE- Chief Executive
CMO- Chief Medical Officer
CPO- Chief People Officer
DCMO- Deputy Chief Medical Officer
ECC- Emergency Coordination Centre
EDMS- Executive Director of Medical Services
EDON- Executive Director of Nursing
IC- Incident Controller (of the ECC)
ID- Infectious Diseases (Specialist)
IPC- Infection Prevention and Control
MCH- Mersey Community Hospital
NWPH- North West Private Hospital
NWRH- North West Regional Hospital
OMT- Outbreak Management Team
PPE- Personal Protective Equipment
RHC- Regional Health Commander
RHEMT- Regional Health Emergency Management Team
RTW- Return to Work
SoNG- Series of National Guidelines on COVID-19
THS- Tasmanian Health Service
THSEOC- Tasmanian Health Service Emergency Operations Centre
THSEOC Cmdr- THSEOC Commander

COVID-19 North West Regional Hospital Outbreak Interim Report



Addendum to the Report

As I clarified in the Premier's media conference on the morning of 30 April 2020, the report incorrectly states on page 14 that to 21 April 2020 there had been a total of 14 inpatients of North West health care facilities confirmed to have COVID-19. I can confirm that the correct number of patients was 22, as reported in the table on page 13.

A handwritten signature in blue ink that reads 'Mark Veitch'.

Mark Veitch
Director of Public Health
30 April 2020