Pandemic Quarantine Facility Guide

Section 1: Processes, infrastructure and communication

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The resource research team welcomes feedback, suggestions and questions about the Pandemic Quarantine Facility Guide resources. Please contact the team via the following email: QuarantineGuideContact@cdu.edu.au

Content Acknowledgement

This project is a result of collaboration between CDU Menzies School of Medicine and the Northern Territory Government, Department of Health. In addition, a core contributor to the establishment of the Centre for National Resilience, Howard Springs Quarantine Facility of which this toolbox is sourced is the National Critical Care and Trauma Response Centre.

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Acknowledgement to Centre for National Resilience, Howard Springs Quarantine Facility core organisations and workforce

The authors acknowledge the many government and non-government agencies and their workforce that developed and operated the facility successfully over two and half years. This includes (but is not limited to):

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Contents

Introduction from Professor Dianne Stephens

Welcome to this open access resource that we hope will assist in the planning and operation of quarantine facilities beyond the COVID-19 pandemic. The pandemic was a once in a lifetime health emergency event that occupied our lives for more than 2 years and required rapid development of new systems and ways of working across the health system. There was rapid innovation and adaptation of facilities to accommodate quarantine, isolation, and clinical management requirements for COVID-19.

Darwin in the Northern Territory is home to the National Critical Care and Trauma Response Centre, and they were tasked with coordinating AUSMAT teams to safely evacuate Australians trapped by the lock down in Wuhan, China in February 2020. The evacuated Australians needed to be quarantined for 2 weeks and once Christmas Island proved too remote for this activity, the Howard Springs workers accommodation village in Darwin was quickly adapted to meet this need. The village became the Howard Springs Quarantine Facility and later the Centre for National Resilience as the model of quarantine care was adapted to meet evolving needs of the local, national, and international arrivals and many important lessons were learned during this time.

This research project and toolbox development has effectively distilled the model of care and lessons learned during the two-year period of operation of the Howard Springs Quarantine Facility. It is a testament to hundreds of staff that worked tirelessly over the operational life of the facility to keep the residents, fellow staff, and the community safe. Too often in health we fail to capture and translate important lessons learned during health emergencies into guidance for the future – we hope this project reflects our lived experience at the Howard Springs Quarantine Facility in a way that is helpful the next time we need to stand up quarantine facilities in this country and beyond our borders.

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Acknowledgment of Country

Charles Darwin University and the Pandemic Quarantine Facility Guide research team acknowledges and respects the many Australian First Nations traditional custodian of the lands upon which our campuses and centres are located. This extends to the land upon which the Manigurr-ma Village has been established, titled after the Larrakia name for the Stringybark tree, and where the Centre For National Resilience, Howard Springs Quarantine Facility is located.

Guide to the Pandemic Quarantine Facility Guide

The health model of quarantine care presents a series of guides and resources freely available for use in the development of quarantine and isolation facilities.

The guides and resources have been divided to align with the six main areas of quarantine service delivery: site infrastructure, site processes, health workforce, resident care, medical and health, and infection prevention and control. Each of these core areas presents an overview of the strategies and resources with links to additional materials.

Section 1	Processes, infrastructure and communication	Logistical and environmental considerations for a quarantine service. Standard operations of practice to establish and maintain a quarantine facility.
Section 2	Infection prevention and control	Disease transmission, personal protective equipment, viral screening, vaccination, cleaning, resources and strategies.
Section 3	Health workforce	Leadership and staff team models, recruitment, education and training, and staff management and support.
Section 4	Resident care	Resident centred model of care, resident arrival, management and exit processes.
Section 5	Health, wellbeing and clinical care	Health and wellness strategies for a primary health model in quarantine.
Section 6	Northern Territory COVID-19 Response	Northern Territory pandemic response teams, Chief Health Officer Directions

Section 1: Processes, infrastructure and communication

The Centre for National Resilience (CNR) provided a foundation to build recommendations for how a large-scale quarantine and isolation facility should approach resident quarantine and isolation care. Through examination of the development and implementation of CNRs quarantine and isolation processes, infrastructure and communication models this Toolbox presents a number of evidence-based guidelines for adaption to any quarantine and isolation facility. Each section incorporates the underpinning primary health care approach CNR adapted and is focused on 5 core areas providing guides for site, staff and resident management.

Section 1: Figure 1: Map of Centre For National Resilience in its utilisation of a quarantine and isolation facility.

The Centre for National Resilience differed from other quarantine and isolation approaches in it was led by the Department of Health with a primary health foundation in service provision. The service was supported by the Department of Home Affairs, the Australian Defence Force, and private organisations (contractors) for day-to-day operations.

Core points of CNR processes and resident care are identified as:

- The site functioned with a resident-centred model of care incorporating a primary health approach, which promotes resident self-care with onsite referral and access to primary health services and established pathways for acute care services.
- Incorporation of core public health approaches for community safety and health promotion.
- Communicable disease transmission risk reduction and infection prevention and control integrated health strategies with aim to maintain overall health and wellness of residents and staff.

As the facility operates with a primary health foundation, the site may not need to be accredited as a registered health facility and therefore does not require the same accreditation and linkage with Medicare for the services it provides. The levels of health service provision incorporate primary health support to residents without functioning as a full primary health clinic with comprehensive primary health care management pathways (refer to Section 5 Health wellbeing and clinical care for a full overview of the health support provided to residents and staff onsite).

This section presents an overview of the core activities and communication considerations which form the basis of a quarantine service. These are expanded throughout the sections on infection prevention and control, health workforce, resident care and health, well-being and clinical care. Additionally, approaches and recommendations for the infrastructure and environmental aspects of a quarantine facility are provided.

1.1 Background of CNR

On March 11, 2020, the World Health Organisation (WHO) declared the novel coronavirus (COVID-19) outbreak a global pandemic. In response, Australia's borders were closed to all non-residents on 20 March 2020 and returning residents were required to spend two weeks in supervised facility-based quarantine from 27 March 2020.

The Northern Territory (NT) Chief Minister announced border restrictions for all access points into the NT from 24 March, 2020, with limited exemptions. In July 2020, the NT introduced mandatory, supervised quarantine for returned international travellers and for domestic travellers from declared Australian COVID-19 'hot spots' who were eligible to enter the NT.

Two NT quarantine facilities (NTQF) were established – the Centre for National Resilience (CNR) in Howard Springs, Darwin, which provided quarantine of international, repatriation, humanitarian and domestic travellers; and the Alice Springs Quarantine Facility, Alice Springs for quarantine of domestic travellers. CNR operated under joint Australian and NT government governance from July 2020 until 15 May 2021, when facilities transitioned solely to the NT government's management and oversight.

The Larrakia traditional owners of Darwin named the Howard Springs village Manigurr-ma, after the Larrakia name for the Stringybark tree used to build shelter in times past. The site is a re-purposed facility formerly used for mining accommodation. CNR can accommodate up to 2,700 returned travellers, and houses people in stand-alone portable dwellings, each of which has its own separate air conditioning and an outdoor verandah. CNR was divided into quarantine 'zones' so that cohorts of international travellers can be kept separate from one another, preventing mixing of people from different cohorts.

The Northern Territory Government (NTG) completed considerable work to expand the capacity at the Centre to support up to 2,000 returning Australians per fortnight. This included four critical dependencies for expansion: workforce recruitment and training, capital works at the Centre, transition to a single source of Centre management and streamlining the arrivals process (which included a transition to flight arrivals at Darwin International Airport). CNR developed into a core strategic pandemic response resource for Australia successfully quarantining 14,867 repatriated residents and 18,210 domestic residents with zero COVID-19 transmission recorded from residents to staff for the duration of its operation.

1.1.1 The purpose of mandatory, supervised quarantine

The overarching purpose of mandatory, supervised quarantine is to prevent communicable disease outbreaks in the community, reducing morbidity and mortality. To achieve this purpose, CNR prevented infection and spread of disease through comprehensive, evidence-based infection prevention and control practices which were rigorously adhered to by every person involved in the care and support of CNR residents. This included:

- Systems and processes to ensure safe resident and staff flow and movement in and around the sites;
- Isolation and physical separation of infected cases and close contacts from other residents;
- Infection prevention and control through physical distancing, hand hygiene and appropriate use of personal protective equipment (standard precautions);
- Cleaning, disinfection and waste management;
- Comprehensive laboratory testing for communicable diseases for all staff and residents; and
- Emergency responses that minimise the risk of communicable disease transmission.

The service facilitated a way for Australians to return home as soon as possible with benefits extending to rebuild the country's economy through increased economic opportunities; and by protecting Australians from any transmission of COVID-19 from returning Australians.

1.1.2 Engaging with First Nation Peoples

It is important to engage with the First Nations Peoples of the land where the quarantine facility is situated and liaise with local communities and Aboriginal Community Controlled Health Organisations. Quarantine and isolation facilities can cause anxiety in local communities and early consultation and communication can alleviate those anxieties. It is important to develop a culturally responsive model of care in partnership with local communities to promote the uptake of the public health measures that form the basis of these facilities. Where local pandemic response plans include quarantine and isolation of First Nations people in a dedicated facility, consideration needs to be given to the most appropriate use of the facility with respect to family groupings and cultural protocols. During COVID-19 a remote community response plan was established with input from community stakeholders aimed at reducing transmission as quickly as possible in these very vulnerable communities. The initial plan included removing COVID 19 positive people and close contacts from the community to the quarantine and isolation facility. Refer to Section 6: NT COVID-19 Response, Rapid Response Teams for an example of a remote community pandemic response strategy.

The quarantine service needs to have a culturally responsive plan for First Nation peoples and their communities recognising their unique social and health needs. For the quarantine service, there should be First Nation representation in facility planning and collaboration and include a plan to build capacity across First Nation services. This might include contracting First Nation organisations and incorporating policy statements to ensure a percentage of the workforce is dedicated to the employment of First Nation people.

Suggested steps to facilitate engaging and working with First Nation people:

- Ensure the quarantine service Leadership Team have completed cultural safety training including an understanding of the history, culture, and experiences of First Nation people.
- Provide cultural safety training for all staff working in the quarantine facility. This training should focus on enhancing cultural understanding, promoting respect, and addressing any unconscious biases that may exist.
- Involve local First Nation communities from the outset. Consult them during the planning, design, and implementation phases of the quarantine facility, particularly in relation to the level of primary health service provision in alignment with health priorities for local communities.
- Consult with Aboriginal Community Controlled Health Organisations as well as other local primary and acute health services as this will help identify First Nations unique perspectives and needs in healthcare. In addition, early identification of dominant health needs within a community identifies those resources most likely required such as dialysis services.
- Review the quarantine primary healthcare services to ensure they can meet the specific needs of First Nation people. This includes providing culturally appropriate care, considering holistic approaches to health, accessing interpreters, and translating core quarantine instructions.
- Actively seek to employ First Nation staff members. Promote workforce diversity and provide training and professional development opportunities to ensure cultural competence among all staff members.
- Develop site information and initiatives that are culturally appropriate.
- Regularly assess the effectiveness of the site's engagement strategies and healthcare services delivered to First Nations residents.
- Seek feedback from First Nations residents and community representatives to identify areas for improvement and ensure ongoing cultural responsiveness.

Practicalities of service delivery

Quarantine services for First Nations residents should prioritise cultural sensitivity and address the unique needs and circumstances of those communities who are likely to use the facility. The site will need to consider factors in zone/room allocation for First Nation residents taking into account extended family structures may need to be accommodated together, kinship networks may require segregation within community groups, and cultural obligations may also influence the allocation of residents within zones.

The service will be required to provide culturally sensitive amenities and resources, and this needs to include appropriate food options. Being in quarantine will limit access to traditional foods and medicines, and space for cultural activities and this will need to be communicated to First Nation residents (preferably pre-addressed in initial quarantine service community consultation).

Culturally appropriate information materials and resources are required to be developed to inform residents of the quarantine procedures, protocols, and the importance

of quarantine measures. The service will need to identify the First Nations languages required and ensure that the information is translated and communicated in an accessible and understandable method to all community members. This may mean using different communication options to share information such as recorded messages sent via phone/SMS, written materials, or inclusion in community meetings. These resources should be prepared as early as possible.

The quarantine service is obligated to facilitate regular communication and engagement between quarantined residents and their communities to reduce isolation and maintain social connections. This is particularly important for residents coming from remote communities where other family members may remain in the community or be in other health services.

Organisations to consult

There are many accessible organisations that can provide information and guidance on community consultation processes and sourcing resources.[1] This may involve linking the quarantine service with local community leaders or assisting with the recruitment of First Nations staff.

- National Community Controlled Health Organisation (NACCHO)
- National Indigenous Australian Agency (NIAA), Australian Government.
- Congress of Aboriginal and Torres Strait Islander Nurses and Midwives (CATSINAM)
- The Australian Indigenous Doctors' Association (AIDA)
- Indigenous Allied Health Australia (IAHA)
- The Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS)

1.2 Site processes

Having coherent site processes which are clearly articulated for staff ensures the quarantine and isolation facility can operate safely and efficiently. This section presents an overview of the core processes underpinning the quarantine service provision based on the operations of the Centre for National Resilience. Each subsequent section of the toolbox continues to present a comprehensive overview of site processes across: infection prevention and control, the health workforce, resident care, and health wellbeing and clinical care. Process start-up guides have additionally been presented in Section 1 to allow a quick overview of core quarantine and isolation facility operations.

A quarantine facility functions with a level of risk to staff (and consequently the community) unless it has evidence-based processes that are clearly communicated to all staff and residents. These processes need to ensure the daily running of the facility can be carried out in a safe manner for all involved. There needs to be as much forward planning as possible which includes flight arrivals, anticipated resident numbers, anticipated weather events, staff requirements and broader pandemic observations such as outbreaks in countries with stranded Australians.

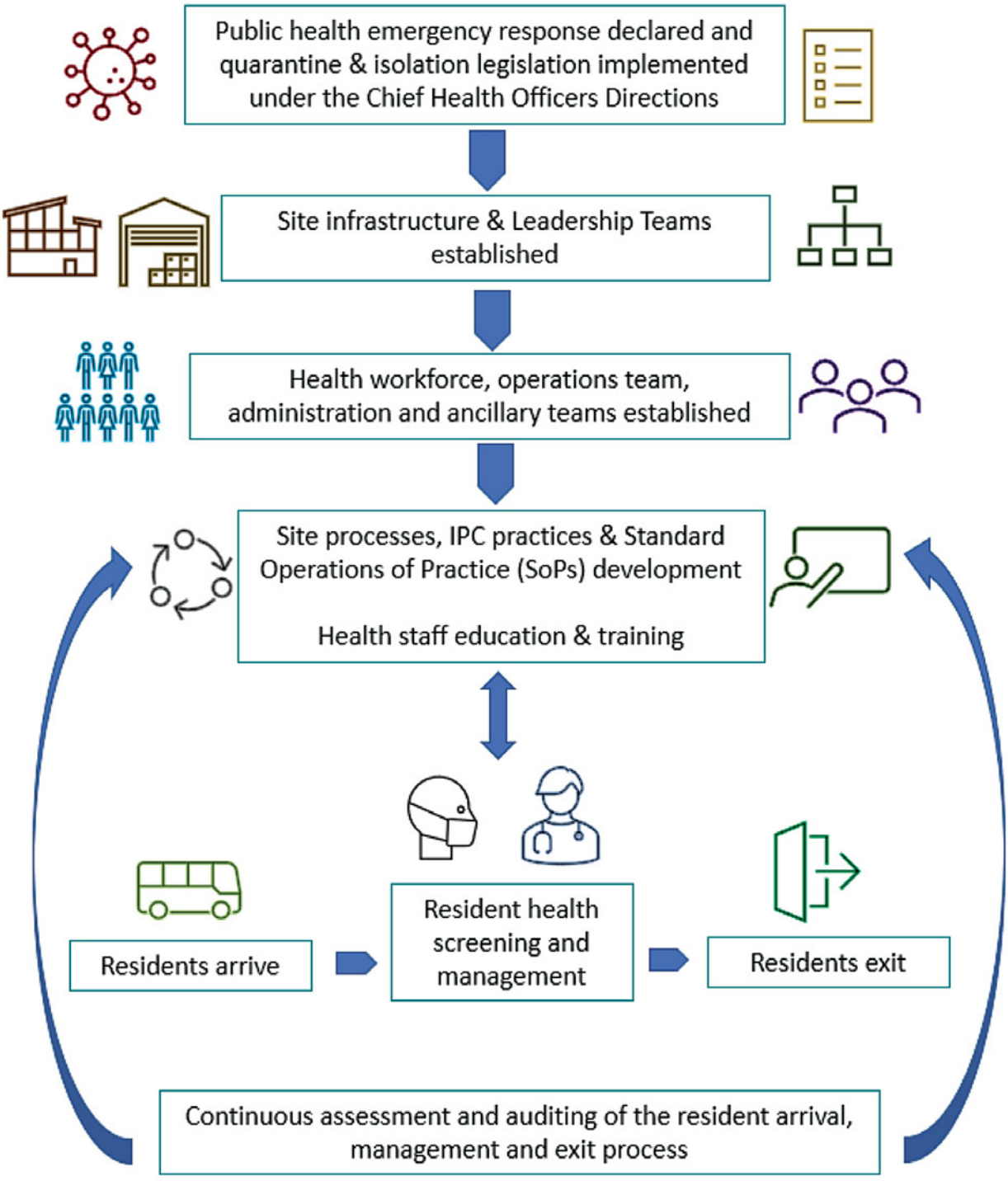
The infrastructure and processes need to have longevity and be sustainable given the COVID-19 pandemic saw quarantine services run for over 2 years. This includes supportive processes for staff with professional development opportunities and communication feedback cycles. The site needs to invest in continuous improvement in practices with a safety and quality control approach to demonstrate positive outcomes in resident management and staff support. In addition there are a number of areas and activities which will require the allocation of adequate funding and ongoing investment, these have been presented in Appendices A.

An efficient quarantine service operating with a primary health care foundation can have a positive impact on the wider health system by reducing community transmission and resulting acute care service use.

Site audits are required to confirm the safety and longevity of the quarantine service (by Australia's Commonwealth Government representatives) and ensure the facility practices aligned with Australia's communicable disease of concern objectives:

a. To prevent and control the spread of the communicable disease of concern in Australia and;
b. Ensure good health outcomes (including mental health) for quarantine residents, workforce and community.

Site audits by the National body should occur at minimum on set up and every three months with ongoing adjustments as required. This will focus on the whole of site with specific attention to infection prevention and control measures and forms a key component of site reporting requirements.



Section 1: Figure 2: Presentation of the initiation and ongoing service provision for the quarantine and isolation facility.

The quarantine service operates with a primary health care approach which encompasses public health best practices that intend to:

- Ensure guidelines, management plans, operations and delivery of services complies with the Australian Health Protection Principal Committee (AHPPC) and its sub-committees. This, for example, includes all staff working at quarantine should undertake daily saliva testing and weekly PCR testing.[2]
- Implement infection prevention and control armaments, for example, physical distancing, use of PPE, hand hygiene and resident cohorting that comply with the national infection control guidelines and guidance published by the infection control experts (the Australian Government, Department of Health and Aged Care, Communicable Diseases Network Australia Series of National Guidelines (SoNG)).[3]
- Ensure appropriate types and levels of PPE are available for use by staff and residents in all aspects of quarantine service delivery.
- Provide regular health checks of the residents by appropriately qualified health staff in order to support early detection of disease.
- Provide appropriate viral screening of staff and residents.
- All resident arrivals identified with symptoms consistent with the disease of concern (as outlined by the CDNA SoNG) will be isolated and managed as a suspected case.

This section will provide a brief overview of the core considerations when commencing the development of a quarantine facility, noting comprehensive guides have been presented throughout this toolbox.

Processes introduced in this section include:

- Initial quarantine stand-up preparations
- Quarantine service reporting considerations
- Staffing factors
- Quarantine zones
- Standard processes
- Health and wellbeing of residents
- Tele Wellbeing and on-site Operations Team processes
- Site safety and logistics
- Onsite police and security operations
- Department of Infrastructure, Planning and Logistics (DIPL) operations
- Site waste management
- Site cleaning processes
- Contraband in quarantine
- Quarantine fees
- Site catering

1.2.1 Initial stand up of quarantine

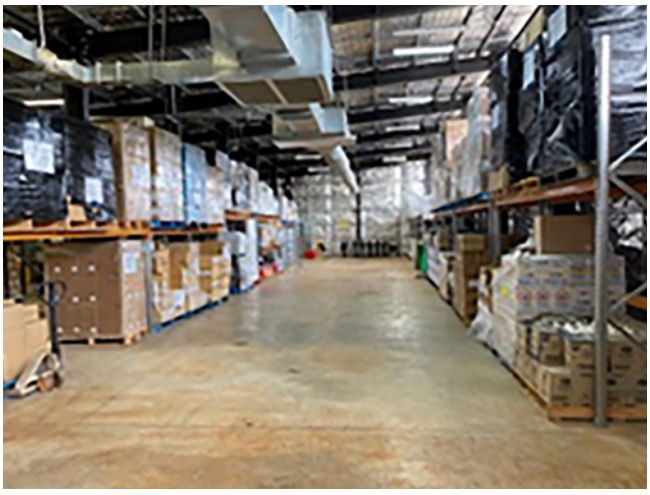
The stand-up stock provides all of the immediate items the quarantine facility would require in the event the facility was opened. These should be packed and kept in a readily accessible area.

The stock includes but is not limited to;

- PPE
- IT system for medical team (online resident health records)
- Resident management information technology system (recording all resident arrivals, departures and management)
- Trestle Tables
- Cleaning Supplies
- Baby Equipment
- Disability Support Equipment
- Nursing Scrubs
- Administration Polo Shirts
- Stationary
- Basic Toiletry Supplies – Soap, Tooth Paste, Tooth Brush
- Trollies
- Rubbish Bins
- Laundry Baskets
- Office and Site Furniture
- Mattresses
- Tea/Coffee/Sugar
- White Goods – Fridges, Freezers,
- Washers and Dryers
- Cyclone stores
- RAT or equivalent viral screening Kits
- WHS Equipment

Stand-up equipment, policies and procedures should be established early and located in a central space (such as with the main administration team). Additional work health safety equipment which is required includes:

- Site Emergency Management Plan
- Site/Gym Keys
- Flagging
- Fire Warden Hats, Site Emergency Fire Plan
- Lighting wands
- Staff electrolyte
- Batteries
- Zip ties



Stand-up stock ready to access

1.2.2 Site risks

Each quarantine site will have its own risks characteristic to their location (logistical and weather elements), anticipated level of service delivery, and staff requirements. Site risks need to be identified early and mitigation strategies established. The following presents a number of risk area for consideration of the site, mitigations to these risks will need to be established by each service. Risk is further explored in Section 1 in the information pertaining to work health and safety.

Section 1: Table 1: Areas of risk for quarantine services

Risk Source	Risk Focus Area	Risk Description (event)
Quarantine site partners	Contract Management, Communication and engagement	Inadequate engagement with contractors, interest groups and media may result in negative attention, loss of reputation and decreased service delivery.
	Contract Management, Communication and engagement	Contractors' failure to adhere to CHO direction around quarantine worker testing leading to challenges with contact tracing and controls in case of an outbreak.
	Contract Management, Communication and engagement	Contractors not adhering to agreed Infection Prevention and Management protocols.
	Contract Management, Communication and engagement	Inadequate vaccine uptake by contractors.
	Contract Management, Communication and engagement	Contractors refusing to come onsite due to perceived increased risk and cumbersome site protocols jeopardising operations.
	Partnership with local acute care services	Inability of downstream acute care medical services to support the site leading to adverse medical events for residents.

Quarantine site people	Capacity and Capability	Inability to recruit and retain staff resources with the required skills to deliver on objectives.
	Capacity and Capability	Lack of sufficient specialised skills like high cleaning staff, experienced and senior nurses, PPE refresher trainer.
	Work health and safety	Failure to adhere to WHS and infection control protocols leading to infection control breach.
	Work health and safety	Outbreak of other transmittable diseases like gastro or food poisoning incapacitating staff and impacting service delivery.
	Fatigue and leave management	Facility operations continuing for extended period of time leading to the requirement for staff to take recreational leave to mitigate fatigue and also manage financial impact of excess leave liability.
	Continuing Professional Development	Facility operations continuing for extended period of time limiting the ability for educators and other specialists staff to engage in professional development to keep their knowledge and skills up to date.
	Culture	An inadequate collective workforce culture due to having staff based in different locations and under different agencies impacting performance.

Quarantine site Performance	Facility Objective	Failure to reach the agreed target of quarantine people.
	Facility Objective	Breach of infection prevention and management protocols leading to disease transmission within the zones among residents; transmission to workforce; transmission from workforce to wider community.
	Integrated service	Failure to effectively manage and integrate the services operating across multiple campuses.
	Integrated service	Physical location of Tele Wellbeing offsite.
	Audit	Audit system failure due to staffing and resourcing shortfalls.
	Well Being	Psychosocial well being of people on site. Mental and emotional breakdown of people even without COVID-19 transmission.
	Governance	The pod system of operations may lead to communication failure across pods and services.
	Service delivery	Long turnaround time for room/high cleans with a flow on effect of delaying intakes and disrupting general flow of operations.
	Model of service	Failure to achieve an efficient model of service under the pod system.
	Financial performance	Inadequate processes, controls and transparency in financial expenditure.

Quarantine site Systems	Efficacy of key business system	Lack of a robust information management system.
	Communications	Failure to capture key communications and audit trails due to the use of personal emails instead of generic emails.
	ICT Hardware	Failure to procure and install necessary ICT hardware due global supply and logistics challenges.
	Stores and supply	Failure to access necessary consumables due to global supply chain interruptions and inadequate sock.
	Records Management	Failure to manage records and to clearly define documents controls, access and approvals.
	Legal and compliance	Inability to meet legislative requirements and accountabilities under outsourced business partner model.
Quarantine site Environment	Infrastructure	Inability to continue with operations due to physical damage key infrastructure due to cyclone, fire or other severe weather events.
	Essential services	Inability to continue operations due to failure of power and/or water services, phones and internet.
	Wildlife and insects	Failure to protect residents and staff from biting and stinging animals like snakes, mosquitos and midges leading to injury and increased discomfort and stress.

1.2.3 Site reporting process

At the Centre for National Resilience (CNR), regular reports were provided on the health and wellbeing of quarantine residents and any health services provided to quarantined residents (including viral screening). Daily reports were required for positive disease cases and for any resident hospitalisations. These reports recorded:

- Resident numbers (and ages).
- Residents in the orange zone and red zones.
- Residents admitted to hospital.
- Summary of Disease (COVID-19) positive residents (current and cumulative).
- Schedule of resident viral screening.
- Staff viral screening compliance.
- Emerging issues and updates on resolved issues.
- Management of repatriated, humanitarian residents.
- Any spread of disease into the site workforce or community.
- Short update of the overall quarantine site operation.

These formed part of a daily Situation Report (sit rep) held by the site and a national sit rep provided weekly. Additional information for the weekly report included:

- Emerging issues.
- Interactions with other agencies (such as the Hazard Management Authority).
- Expenditure and contract managing.
- Planning undertaken with the Emergency Operations Centre (EOC).

1.2.4 Staffing considerations for the facility

The initial development of the Centre for National Resilience was led by teams from the National Critical Care and Trauma Response Centre (NCCTRC) who have lived experience of working with communicable diseases of concern. This team laid the foundations for a primary health approach to quarantine and established the practices and processes which continued to develop through a quality assurance, auditing and feedback cycle. A comprehensive overview of the quarantine service workforce has been provided in *Section 3: Health Workforce*.

The following should be implemented and observed for all staff employed or contracted by the quarantine service:

- Maintain up-to-date records of employee contact details, work location and outside employment arrangements to facilitate contact tracing.
- Monitoring of staff onsite to ensure they all have a working with children check and a current police clearance.
- Ensure access to personal protective equipment (PPE) and infection prevention and control (IPC) training for healthcare workers, including students, and where necessary for other health service employees, in accordance with health guidelines, to enable employees to safely perform duties and protect residents.
- Ensure only employees essential to the delivery of care or site maintenance (in cases where maintenance cannot be delayed) are entering areas where residents with suspected or confirmed coronavirus (COVID-19) are being cared for.
- Staff team allocations and rostering practices work to cohort healthcare workers (e.g. Team A and Team B within a workgroup). Noting roster changes must comply with the relevant enterprise agreement.
- Where possible, minimise the movement of employees between multiple work sites /departments/areas of the quarantine site.

- Ensure physical distancing, hand hygiene, and frequent cleaning and disinfection are supported in areas where employees may congregate (e.g lunch areas).
- Implement regular COVID-19 safety checks, audits and training to ensure the requirements for COVID-19 safety are being adhered to at the quarantine site.
- Consider if it is appropriate for the site to include vulnerable employees who are in most at-risk population groups and if so implement personal action plans with their manager and, where necessary ensure they are supported in non-resident facing roles, or roles away from where there are suspected or confirmed coronavirus (COVID-19) residents.
- Where possible, allow employees to use appropriate flexible work arrangements, including working from home and consider alternative communication methods (to face-to-face) such as teleconferencing or videoconferencing.
- Provide opportunity to develop and enhance the skills of the health workforce, including opportunities for graduates and students across the health professions to learn IPC and quarantine management.

As an over-arching principle all employees and contractors have a responsibility in minimising the risk of transmission of infectious disease onsite, particularly if their role includes movement across multiple work sites. This responsibility extends to:

- Maintaining social distancing at all times
- Minimising face-to-face meetings
- Complying with meeting room protocols - numbers and cleaning
- Maintaining hand hygiene
- Use of personal protective equipment where necessary

1.2.4.1 Quarantine site disease (coronavirus (COVID-19)) monitoring and notification for staff

- Ensure employees adherence to viral screening (temperature check and/or symptom check).
- Viral screening of all staff with timely turnaround of results (within 48 hours).
- Report employees confirmed to have coronavirus (COVID-19) in accordance with Government Health Department notifiable disease requirements.
- Maintain a log of employees who care for residents with suspected or confirmed coronavirus (COVID-19) and retain the log when the case is confirmed.
- The quarantine service must maintain a record of all employees who are working across more than one work site.

1.2.4.2 Training and orientation of staff

- Orientate employees to quarantine work areas, including the physical environment and area-specific policies and procedures.
- Ensure training includes work health and safety requirements (site induction) and any other legislative requirements.
- Establish a training process for all relevant employees on standard precautions (including hand hygiene), PPE use and coronavirus (COVID-19) and site IPC practices.
- Maintain a program of oversight to ensure compliance with precautions and appropriate use of PPE and other infection prevention and control practices (such as hand hygiene).
- Provide training for surge-response healthcare workers who may attend the site to ensure competency and safety in work areas they are not familiar with.

1.2.4.3 Staff personal safety

- Comply with health service policy and procedures for infection control and quarantine practices, including donning and doffing of PPE.
- Adhere to (COVID-19) self-isolation and return to work protocol, where appropriate, and immediately notify the manager.
- Comply with screening procedures at the quarantine site.
- Minimise movement into resident zones and between work sites.
- Provide all other surveillance, management and notification practices associated with any health workforce.

1.2.5 Quarantine zones

Within the quarantine facility zones are designated 'green', 'orange' or 'red' based on communicable disease risk as presented in the below table. Each repatriation flight was allocated its exclusive orange zone for cohorting purposes. It was also allocated a corresponding 'Pod' which housed the health workforce team looking after the flight for its entire quarantine period. For example, zone 6 was looked after by pod 6. A complex overview of zones in quarantine is provided in *Section 2: Infection prevention and control*.

Section 1: Table 2: Description of zones in quarantine

RED ZONES	Designated for isolation, the management of cases of COVID-19. All staff were required to wear full PPE while in the red zone. For repatriation residents, a red area was sometimes created within their zone, and residents in the zone who tested positive during their stay were transferred to this area for the rest of their stay at CNR. For repatriation residents, a red area was sometimes created within their zone, and residents in the zone who tested positive during their stay were transferred to this area for the rest of their stay at CNR.
ORANGE ZONES	Designated for quarantine, management of repatriation residents as well as close contacts of COVID-19. Staff were required to wear PPE while in the zone, the extent to which depends on their contact with residents
GREEN ZONES	All other areas not designated red or orange are considered green zones. These were areas where staff spend most of their time at CNR. Red and orange zones can be deemed green if > 72 hours have passed since they housed COVID-19-positive resident. PPE is not typically required in the green zones, except for masks when mandated by the CHO or in situations where staff were unable to maintain the required 1.5 distance.

1.2.6 Standard processes in quarantine care

The quarantine facility needs to establish standard practices to facilitate the safe delivery of quarantine and isolation care for residents ensuring their health (physical and mental), welfare, meals, security and quarantine needs are met. This includes the provision of safe accommodation, access to health care and amenities for residents, with the provision of well -ventilated separate non-communal amenities. Consideration needs to include the capacity and infrastructure to allow residents to receive health assistance, particularly in emergency situations.

Most importantly the facility has the ability to access personal protective equipment (PPE), facilitated through the National Medical Stockpile and ensuring there is access to an additional surge workforce if required.

The facility needs to be able to cohort residents according to risk, including identified vulnerable groups and have a complete physical separation of international travellers returning with other quarantine residents. This needs to include space to allow sufficient physical separation between individuals and others, noting adjustments may require changes in line with disease trends and health advice. Additional space is required to operate suitable medical facilities and related activities including testing, resuscitation and ambulance transfers.

The following points capture the key process areas in the delivery of care to residents. These processes are provided in more detail in relevant toolbox sections.

1. Establishment of site health and safety processes including all infection control processes required to prevent transmission of the virus from resident cohorts between themselves and to the workforce on site.
2. Development and review of policy and operating procedures to ensure an evidence based, efficient and flexible approach to the operational aspects of the management of the facility from a health perspective.
3. The resident intake process staffed 24/7 with onsite health personnel including cohorting decisions for resident accommodation to maximise efficiency and reduce risk.
4. Ability to house families together and accommodate very young children.
5. Daily health checks of all residents to ensure early notification of symptoms by appropriately qualified health staff in order to detect early signs of infection.
6. Viral screening of all residents by appropriately qualified health staff in order to detect early signs of infection, with timely turnaround of results (within 48 hours).
7. All residents with symptoms will be isolated and managed as a suspected case.
8. Accommodation needs to accommodate both COVID-19 positive cases with mild symptoms and individuals who have other mild health conditions, noting that the best location will be determined by the clinical managing the case in alignment with the CHO Directions.
9. Support for non-COVID-19 health requirements.
10. Forecast of potential requirements for quarantine facility based on current epidemiology of the outbreaks interstate and internationally.
11. Maintaining an active resident database for statistical reporting purposes. This requires enough resident information to facilitate contact tracing requirements.
12. Approving all departures and signing of the ‘completion of quarantine’ certificate.
13. Regular Leadership Team meetings (each morning) with staff allocation to areas, PPE review and key messaging including updates to guidelines.

14. Providing residents access to health services including:
    - Access to hospital services for any issue which requires immediate action including but not limited to the diagnosis and treatment of COVID-19.
    - Access to mental health support (for residents and staff).
    - Provision of personal medicines and other medical supplies to resident where self-administration is allowed under normal directions (such as with paracetamol).
    - Ensure onsite medical supplies have appropriate security and access arrangements.
    - Health teams have personnel on site 24/7 to manage health issues on site.
15. Medical Emergency processes established and aligned with local medical retrieval teams (ambulance/ paramedics).
16. All the above areas form the basis of the reporting requirements for the facility.

1.2.7 Health and wellbeing of residents

With a primary health care foundation, the quarantine and isolation facility operates with a public health and health promotion approach to its practices. Despite quarantine and isolation often being a mandated process for the residents entering the site, there needs to be consideration of the social determinants of health, social justice and the provision of a culturally safe place.

Residents in quarantine can be empowered to have control over their health and wellbeing through the provision of:

- A supportive health workforce who will regularly check residents' health and wellbeing through face-to-face and online interaction and assist/refer as resident needs indicate.
- Provide access to a varied and healthy diet with the opportunity for additional dietary choices via a click-and-collect service.
- Ensure accommodation allows access to the outdoors (fresh air), is suitable for the climate, reduces the risk of disease transmission from others (ventilation, IPC standard practices and physical distancing), permits privacy and is spacious enough to allow exercise to be undertaken.

The recommendations for health staff-to-resident ratio is:

- 50 residents to 2 staff for general quarantine
- 30 residents to 2 staff for positive cases

Noting one staff member will be a registered health professional (nurse).

Staff will work with one resident cohort only and are not permitted to move between resident groups.

This toolbox presents the resident journey through quarantine based on a 14 day quarantine period, noting quarantine time requirements will vary during a pandemic. The resident journey is presented in *Section 4: Resident care* which provides information pertaining to:

- **The resident-centred model of care** which incorporates the following aspect of quarantine for residents: physical health, mental health, communication, infection prevention, information, diet meals, supportive staff, safe and healthy environment, culturally safe, and entertainment.
- **The role of the Tele Wellbeing teams** which included non-health professionals led by a health professional/ clinical team leader (such as a registered nurse). This team were provided with training to navigate difficult conversations, a script for resident wellbeing checks and referral pathways, and to understand the legalities and responsibilities of resident privacy and confidentiality.
- **The resident arrival process** which incorporates the acceptance of residents into quarantine, how resident room allocation is managed across the quarantine facility with the use of cohorts and how to manage minors, dependents or residents who are unwell. Resources presented include scripts for new arrivals to quarantine, the resident arrival booklet and welcome pack.
- **The resident management process** which presents IPC and PPE practices specific to resident management, the process of carrying out daily health and wellbeing checks, managing resident emergencies and residents who are a close contact or a positive case. The processes of meal deliveries, click and collect and room moves is presented along with recommendations for managing aggressive or abusive residents with the implementation of a Quarantine Compliance and Enforcement Working Group. A complex overview of the viral screening process of residents is provided and this outlines the methods used when screening a large resident cohort (150 plus).
- **The resident departure process** which involves the communication processes, their certificate of completion of their quarantine and assisting resident with hardship priori to their actual departure.

1.2.8 Tele Wellbeing and on-site Operations Team processes

This team have a number of complex tasks which are presented throughout the Pandemic Quarantine Facility Guide sections. A comprehensive overview of their teams is provided in *Section 3: Health Workforce*. A brief presentation of their processes includes:

1. Maintain and update Welcome packs for the residents with frequently asked questions and guidance on procedures during their stay.
2. Establish multimedia approach to communication and messaging to residents to keep them informed throughout their stay.
3. Manage socially vulnerable individuals and families and people with complex non-health related needs as they arise. Referral of resident to Specialised and Medical teams as required.
4. Facilitate the process of allowing quarantined individuals with permission from the CHO to attend personal events such as funerals or visiting family in palliative care.
5. Establish process for residents to access personal needs within the health infection control framework for the site including order requests and payments from residents for pharmacy orders through local pharmacies - medication will be handed to residents to manage themselves.
6. Assist residents with exit planning and forward travel arrangements.
7. Facilitate interpreter services for residents from non-English speaking backgrounds.
8. Recreation and well-being of residents within the prescribed infection control measures.
9. Maintain contemporary record keeping of actions on the C19C database against resident profiles.

1.2.9 Site safety and logistics

A detailed overview of site safety processes is provided in Section 1, under the information for work health and safety. All quarantine facilities must have a detailed fire evacuation and emergency management plan that includes the complexity of managing situations with people in quarantine inclusive of positive cases. Depending on site location this may need to include a site Cyclone Management Plan (CMP) or Site Flooding Management Plan.

Core processes for consideration in this area include:

1. Site induction processes.
2. The resident intake process in terms of room keys & room allocations and the maintenance of occupancy records.
3. Hotel services such as reception, room turn over, linen supplies, TV and Wi-Fi.
4. Catering, including staff as staff are not able to leave the site during work hours.
5. Zoning (fencing, access and egress, signage) and Site signage including health requirements.
6. Site emergency management planning & implementation.
7. Site Traffic Management.
8. Reactionary maintenance (OHS risk mitigation for our workforce and room and site maintenance that is urgent for the health and wellbeing of quarantined individuals and families).
9. Courier services for urgent supplies and deliveries.

1.2.10 Police and security operations onsite

Police and security onsite facilitated a safe and secure quarantine site for both staff and residents. This is achieved through:

- Ensuring the integrity of the quarantine zoning.
- Oversight of the QF site entry / exit security, policies and procedures.
- Provide expert advice to the security contract manager on the requirements on site.
- Assisting Health Teams with the intake and exit processes as required, particularly when reception/exit of large cohorts occur.
- Liaison between the Emergency Operations Centre (EOC); the border control point teams; and the quarantine site to ensure timely and accurate information to the site of impending quarantine admissions from the airports and the borders for the purposes of site planning.
- Providing escalation and enforcement options for persons committing breaches of Chief Health Officer (CHO) directions.
- Responding to concerns from Health Teams that may require Police assistance.

Security are based at a site entry checkpoint and will deal issues onsite such as contractor staff wanting to enter the site who are not vaccinated. Additionally, all staff need to swipe their access card when entering the site or record their entry with the security team to ensure there is record of everyone onsite at all times (including recording when staff leave the site). This is checked by security staff to identify staff who may be spending extended time onsite with no reason to remain there.

Security staff are also situated at the entrance to every resident zone and in strategic positions across the site to monitor for residents absconding.

1.2.11 Department of Infrastructure, Planning and Logistics (DIPL) operations

The transport functional group are responsible for:

- Communications outlining daily arrivals by commercial transport such as buses trains and airlines into the NT to the leadership group at the NTQF to provide for forward planning of potential arrivals.
- Arranging transport between the NTQF and the airport.
- At the HSQF, DIPL provide hard facility management on behalf of the NTG.

The roles for DIPL for HSQF include but are not limited to:

Technical expertise on the infrastructure including scoping and works to get accommodation blocks up and running to handover to facilities manager for cleaning and preparation to receive residents

New works, site repairs and maintenance, including trade-based work except work tasked to facilities manager

Contractor sourcing and management for infrastructure elements not tasked to the facilities manager.

1.2.12 Site Waste Management.

In a quarantine facility, the management of rubbish and waste is crucial to maintain cleanliness, hygiene, and prevent the spread of infectious diseases (considering other infectious diseases which can be spread though the mishandling of waste). Waste management needs to be coordinated to ensure there is clear definition onsite of medical waste which requires incineration and general quarantine waste which will need to incorporate other waste characteristics such as food waste from onsite catering.

In delivering services such as waste management there must be compliance with the relevant standards under the National Environmental Protection Council Act 1994.[4]

The management of COVID-19 contaminated waste may vary depending on the specific guidelines and regulations set by local authorities or waste management agencies. It is important to follow the latest guidance from local health and waste management authorities to ensure proper and safe disposal of (COVID-19) contaminated waste.

> In the early stages of the pandemic PPE waste at doffing stations was collected as clinical waste, however it became apparent this was not necessary.
>
> It was determined that there is a low risk of transmission of COVID-19 from quarantine waste however safe processed need to be established. This means that COVID-19 contaminated waste can be managed as general or household waste.

The specific procedures may vary depending on the location and regulations of the quarantine facility, but generally, the following practices are recommended:

Segregation and Separation: Different types of waste, such as general waste, hazardous waste, and biohazard waste, should be properly segregated and separated to prevent cross-contamination. This is typically done through color-coded bins or bags that are clearly labelled.

Personal Protective Equipment (PPE): All staff members and individuals within the quarantine facility should wear appropriate PPE, such as gloves, goggles and masks, when handling waste to protect themselves and prevent the spread of infections.

Collection and Storage: Waste should be collected regularly and stored in designated areas or containers that are leak-proof, puncture-proof, and secured to prevent unauthorized access. Hazardous waste or biohazard waste may require additional safety measures, such as specialised containers or refrigeration.

Disinfection: Surfaces and containers used for waste collection should be regularly cleaned and disinfected to maintain proper hygiene and prevent the spread of infections.

Transportation and Disposal: Waste should be transported in accordance with local regulations and guidelines, and disposed of properly in designated waste management facilities. Hazardous waste or biohazard waste may require specialised disposal methods, such as incineration or chemical treatment, to ensure safe and proper disposal.

Record Keeping: Accurate records of waste management activities, including collection, transportation, and disposal, should be maintained for tracking and monitoring purposes, as required by local regulations.

Education and Training: Staff members and individuals within the quarantine facility should receive appropriate education and training on proper waste management practices to ensure compliance and prevent any lapses in waste handling procedures.

Environmental Considerations: Environmental considerations, such as recycling and minimizing waste generation, should also be taken into account, where feasible, to promote sustainable waste management practices.

It is important to note that waste management practices in a quarantine facility may be subject to local regulations and guidelines, and may vary depending on the specific circumstances of the facility. Proper waste management is critical to maintain a safe and healthy environment within the quarantine facility and prevent the spread of infections.

Basic onsite recommendations:

- Biohazard waste goes into yellow biohazard bags and is managed in accordance with approved processes and procedures.
- All other waste is treated as general waste and managed by the facilities manager.
- Residents are responsible to remove their waste from their rooms, including disposing off the waste generated by the food supply. Waste bins are provided in each resident area.
- Waste bins are collected from the resident zones by a contractor, with staff wearing appropriate PPE.
- Waste collected during the process of swabbing is collected in clinical waste bags and later treated as general waste as per guidelines. All waste management approaches need to consider the environmental impact (sustainable practice), and costs, and aim to improve health and safety (reduces the risk of spreading infection).

1.2.13 Site cleaning processes.

It is recommended that residents are supplied with cleaning materials for maintaining their own rooms during their stay. Rooms are then vacated prior to cleaning and this is carried out in alignment with the national guidelines for hotel staff. A comprehensive overview of preventing and controlling Infection through cleaning and disinfectant is provided in *Section 2: Infection prevention and control*. This includes:

- Cleaning the quarantine site
- Cleaning techniques
- Managing the cleaning of resident rooms
- Cleaning of resident rooms in the green zone
- High cleaning of contaminated rooms.
- Sanitising of reusable items
- Cleaning site buggies

This full resource presents considerations and methods to clean across the quarantine site (including resident zones). In delivering services such as quarantine service cleaning there must be compliance with the relevant standards under the National Environmental Protection Council Act 1994.[4]

It is recommended that for the purpose of environmental cleaning, the resource prepared by the Australian Commission on Safety and Quality in Health Care Principles of environmental cleaning: product selection is also consulted.[5]

1.2.14 Contraband in quarantine

In order to keep both residents and staff safe it is recommended the service practice as a restricted premises and ban alcohol and be managed as an alcohol-free site. In addition to this a number of items are recommended to be restricted noting that all meals are provided in this quarantine model and therefore cooking utensils are one of the primary banned items. On resident's arrival they should be questioned to verify if they are carrying any of the following items (noting, it is not recommended to search bags and cases).

Items which will not be accepted are detailed below. Persons delivering to the facility any item which is prohibited must be asked to remove the item and take it with them upon departure from site. Prohibited items include:

- Alcohol.
- Illicit drugs.
- Cooking utensils such as toasters, microwaves, rice cookers, stove tops or sandwich makers.
- Weapons of any kind (including knives).
- Prescription medications unless medication has the resident's name and dosage etc on the label from a pharmacy.
- Home cooked / takeaway meals.
- Groceries.
- Delivery of packed bags with items such as clothing, shoes and toiletries, toys, books and entertainment materials from home.

No external supply of alcohol to residents within the site needs to be communicated to all incoming residents and enforced with communication and education. Processes need to be established for international travellers who are more likely to travel home with duty-free alcohol. In such cases the alcohol is removed by the Operations Team and held is a secure place to be provided back to the resident on their departure.

1.2.15 Quarantine fees

The specific details of quarantine fees can vary depending on the country, region, or facility where the quarantine is being implemented, but the general principles are often similar.

Quarantine fees need to incorporate consideration for accommodation (including cleaning) and meals.

Standard practice is to only charge the accommodation component of the fee for one person where two or more people share quarantine accommodation. Each state and territory set their own quarantine fees and provided an opportunity for a waiver to be sought from the payment of all or some of the fees for financial hardship or being a vulnerable person.

Example of hardship provision for Australian residents

> If they are a low income earner they may be eligible for a reduced rate quarantine fee of $1250 per person or $2500 per family of two or more people sharing accommodation. The low income thresholds are:

- Single $52,706
- Families $68,894

It's important to note that the policies regarding quarantine fees can change over time and may be subject to local regulations and guidelines. Quarantine fees may vary in relation to the quarantine purpose and set up as presented in the following examples.

> **Government-Imposed Quarantine Fees**: In some cases, governments may mandate quarantine for individuals entering their country or region from another location with a higher risk of infectious diseases. These quarantine measures may be implemented at airports, seaports, or other points of entry. Governments may charge fees to cover the costs of facilities, staffing, food, and other expenses associated with the quarantine period. The fees may be paid upfront or collected later through fines or penalties for non-compliance.
>
> **Quarantine Facility Fees:** Quarantine facilities, such as hotels or designated facilities, may be designated for individuals who need to undergo quarantine. These facilities may charge fees for accommodation, meals, and other services provided during the quarantine period. The fees may vary depending on the type of facility, the duration of the quarantine, and the level of services provided.
>
> **Testing and Medical Fees:** As part of the quarantine process, individuals may be required to undergo COVID-19 testing or other medical examinations. These tests and medical services may incur additional fees, which can vary depending on the location and type of test or examination conducted.

1.2.16 Site catering

Catering for the quarantine services should supply residents and onsite staff (as staff were requested to not leave the site and to reduce the risk of food-related infections they were requested to not bring their own meals or share food onsite). Consideration needs to be given for potential restrictions in accessing food services due to state/territory lockdowns and isolation requirements.

In delivering services such as food safety and delivery there must be compliance with the relevant standards under the National Environmental Protection Council Act 1994.[4] In addition, in the delivery of food preparation and catering services the catering company must ensure compliance with the Food Standards Australia New Zealand Act 1991 (FSANZ Act).[6]

It is important that meals are regularly provided to residents and incorporate a healthy and varied meal choice aligned with any special dietary requirements. As residents arrive (or in the pre-arrival process) dietary requirements need to be recorded for each resident. These details include room numbers, and dietary requirements/ preferences such as Standard, Vegetarian, Vegan, Pescatarian, Kosher, Gluten Free, Lactose-Free. Medical requirements such as diabetic meals, pregnancy safe or specific dietary requirements which allow for allergies and medical conditions. There may also be need to provide baby food – Age dependant and Children's meals which are normally a smaller portion size and with occasional specific simple kids meals, ensuring they are nationally balanced.

Once meal requirements are identified on arrival, this is set for the entirety of the resident's stay (it is unrealistic for large facility to allow residents to change their meal requirements during their

stay, this needs to be communicated with residents so they understand their meal choice will be applied to all their meals).

Meal delivery of customised meal packages requires strategic planning to reduce the amount of time catering staff have to spend in the zone with infected and potentially infected residents. It is recommended a maximum of 2 meal drops occur daily with aim for one meal drop if possible.

This can incorporate:

- Two meal drops per day- a breakfast and lunch meal combination and hot dinner.
- One meal drop per day- a hot dinner with breakfast and lunch provided for the next day

Residents can additionally access a click-and-collect service onsite to add to their food onsite. The click-and-collect process for residents is detailed in *Section 4: Resident Care*.

A service agreement is recommended with the retail outlets who will deliver click-and-collect items for residents. This is important so those items which are considered contraband and not permitted on site cannot be ordered. In addition, the retail outlet needs to have the capacity to cater to the residents' requests and deliver in a timely manner (given residents will likely need their items quickly).

As catering forms such a vital part of the resident stay and quarantine services the catering manager needs to be included on all Leadership meetings and their team should have access to education and training to ensure they are safe on site.

MENU **MONDAY**

	BREAKFAST	LUNCH	DINNER
STANDARD	Toasted Breakfast Muesli Bowl ● Stewed Stonefruit ●●● Baked Croissant with Spreads ● Small Juice ●●●	Aussie Summer Tuna Salad ●● *Tuna in Springwater, Cos Lettuce, Cucumber, Cherry Tomatoes, Creamy Potato Salad, Hard Boiled Egg, Charred Corn Cob, Parsley, Lemon Wedge, Capers, French Dressing* Fresh Whole Fruit ●●● Fresh Bread Roll, Assorted Cheese and Butter ●	Italian Chicken Parmagiana *Chicken Schnitzel, Homemade Tomato Sauce, Grilled Cheese, Garlic Baked Potato, Carrot, and Peas* Chef's Choice Dessert Selection *With garnish and topping*
VEGETARIAN	Toasted Breakfast Muesli Bowl ● Stewed Stonefruit ●●● Baked Croissant with Spreads ● Small Juice ●●●	Baked Cauliflower and Chickpea Salad ●●● *With Mixed Greens, Cherry Tomatoes, Cucumber, Cauliflower, Chickpea, Charred Corn Cob, Parsley, and French dressing* Fresh Whole Fruit ●●● Fresh Bread Roll, Assorted Cheese and Butter ●	Italian Vegetarian Parmagiana ● *Vegetarian Schnitzel, homemade Tomato Sauce, Grilled Cheese and Garlic Baked Potato, Carrot and Peas* Chef's Choice Dessert Selection ● *With garnish and topping*
GLUTEN FREE	Toasted Breakfast Muesli Bowl (Vegan & Gluten Free) ●●● Stewed Stonefruit ●●● Fruit Yoghurt ●● Small Juice ●●●	Aussie Summer Tuna Salad ●● *Tuna in Springwater, Cos Lettuce, Cucumber, Cherry Tomatoes, Creamy Potato Salad, Hard Boiled Egg, Charred Corn Cob, Parsley, Lemon Wedge, Capers, French Dressing* Fresh Whole Fruit ●●● Fresh Bread Roll (Gluten Free), Assorted Cheese and Butter ●●	Italian Grilled Chicken *Grilled Chicken, Homemade Tomato Sauce, Grilled Cheese, Garlic Baked Potato, Carrot, and Peas* Chef's Choice Dessert Selection ● *With garnish and topping*
VEGAN / VEGAN & GF	Toasted Breakfast Muesli Bowl (Vegan & Gluten Free) ●●● Stewed Stonefruit ●●● Diary Free yoghurt ●●● Small Juice ●●●	Baked Cauliflower and Chickpea Salad ●●● *With Mixed Greens, Cherry Tomatoes, Cucumber, Cauliflower, Chickpea, Charred Corn Cob, Parsley, and French dressing* Fresh Whole Fruit ●●● Fresh Bread Roll, Cheese and Spread (Vegan & Gluten Free) ●●●	Italian Vegan Parmagiana ●●● *Vegan Schnitzel, homemade Tomato Sauce, Vegan Cheese and Garlic Baked Potato, Carrot and Peas* Chef's Choice Dessert Selection ●●● *With garnish and topping*

Please note: This menu contains No Beef, No Pork and all meats are Halal.

● Vegetarian ● Vegan ● Gluten Free

1.3 Site infrastructure & environmental considerations

The quarantine facility's infrastructure and general environment directly impact the functionality of the teams and the experience of the residents. During the COVID-19 pandemic, the lack of facilities appropriate for quarantine and isolation purposes was apparent and through a trial of using established structures, it became evident certain infrastructure characteristics were more conducive to infection prevention and control (IPC) measures and the health and well-being of staff teams and residents. This highlighted building status in relation to ventilation, space capacity, and structures that promoted mental and physical health and wellbeing. For the Centre for National Resilience (CNR) an additional focus point was environmental factors associated with weather and climate with staff working outdoors in a hot tropical area.

This section focussed on the quarantine services site infrastructure is based on the infrastructure characteristics of the CNR which contributed to the success of the site as a quarantine facility. This includes environmental concerns and recommendations on quarantine service design from the wider pandemic.

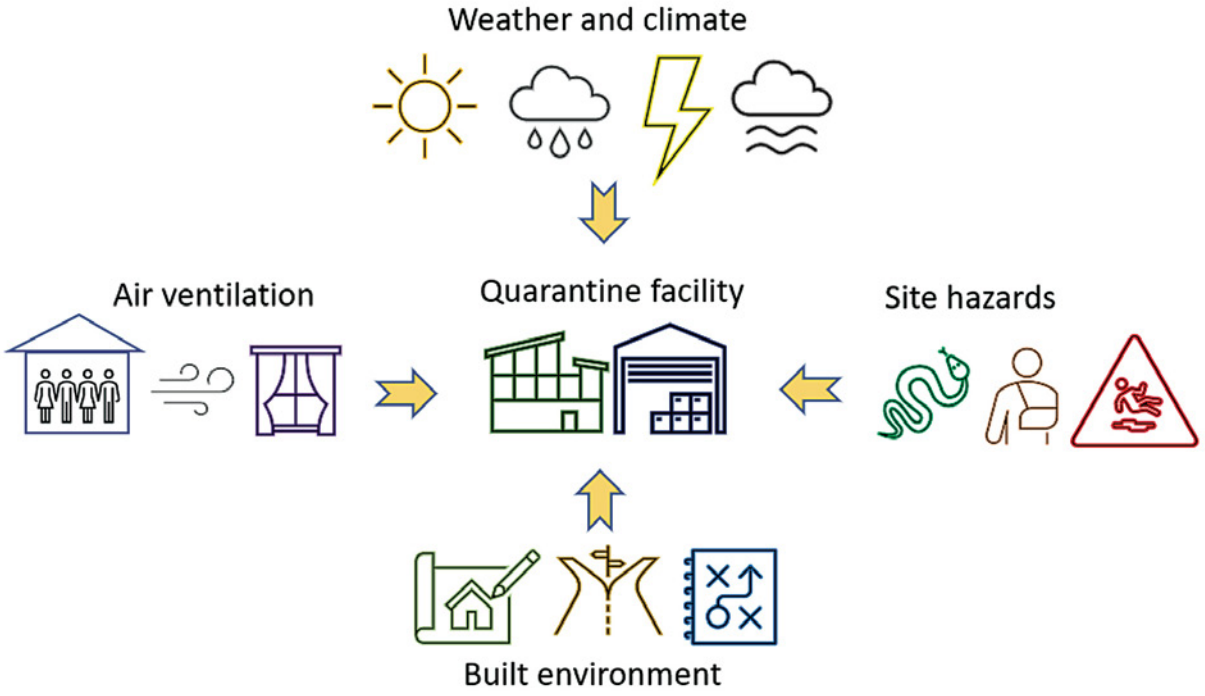
The structural design of a quarantine service needs to incorporate a functional infrastructure that will minimize risk of disease transmission whilst still providing an environment that promotes the health and wellbeing staff and residents. The predominant risks within a quarantine facility are associated with quarantine workers contracting disease in the workplace and subsequent incapacitation of teams and spread to the community. The first step in mitigating such risk is by a multifaceted approach to infection prevention and management controls (IPMC).

As presented in detail in *Section 2: Infection, prevention and control*, prevention is supported across the quarantine and isolation facility by:

- Site induction processes for new workers,
- mandatory initial PPE training and refresher training and;
- controls in the workplace to ensure PPE and infection control procedures are adhered to by all workers entering and exiting orange and red zones;
- viral screening of all staff on site every 7 days and;
- ensuring the quarantine workforce and residents are separated.

There are many different factors that will contribute to the success of the quarantine service in relation to its design and infrastructure. Some are within the control of the site such as ventilation and the built environment and others such as weather elements and climate are not. Features that contribute to quarantine services structural and environmental risk factors can be identified as:

- Weather and climate (extreme heat and sweating, storms, extreme cold, lightning and rain),
- Site hazards,
- Ventilation (air circulation and air filtering systems),
- Infrastructures (built environment) and rooms (open versus closed-in spaces, indoors or outdoors).



Section 1: Figure 3: Structural and environmental features which contribute to quarantine service risk factors.

Environmental factors related to infrastructure and infection control in quarantine are represented as climate, humidity, air circulation and filtering, with each presenting different impacts on disease transmission risks. During the COVID-19 pandemic, these factors were primarily linked back to the transmission through fomites and contact transmission with the coronavirus being cited as remaining viable (transmissible) on stainless steel surfaces for up to 72 hours early in the pandemic. There was also the recognition of the importance of air circulation with airborne and droplet transmission a much higher risk in closed in poorly ventilated areas also dependent on the number of people within a closed in the area and the time they were together.[7]

1.3.1 Site mapping and pathways

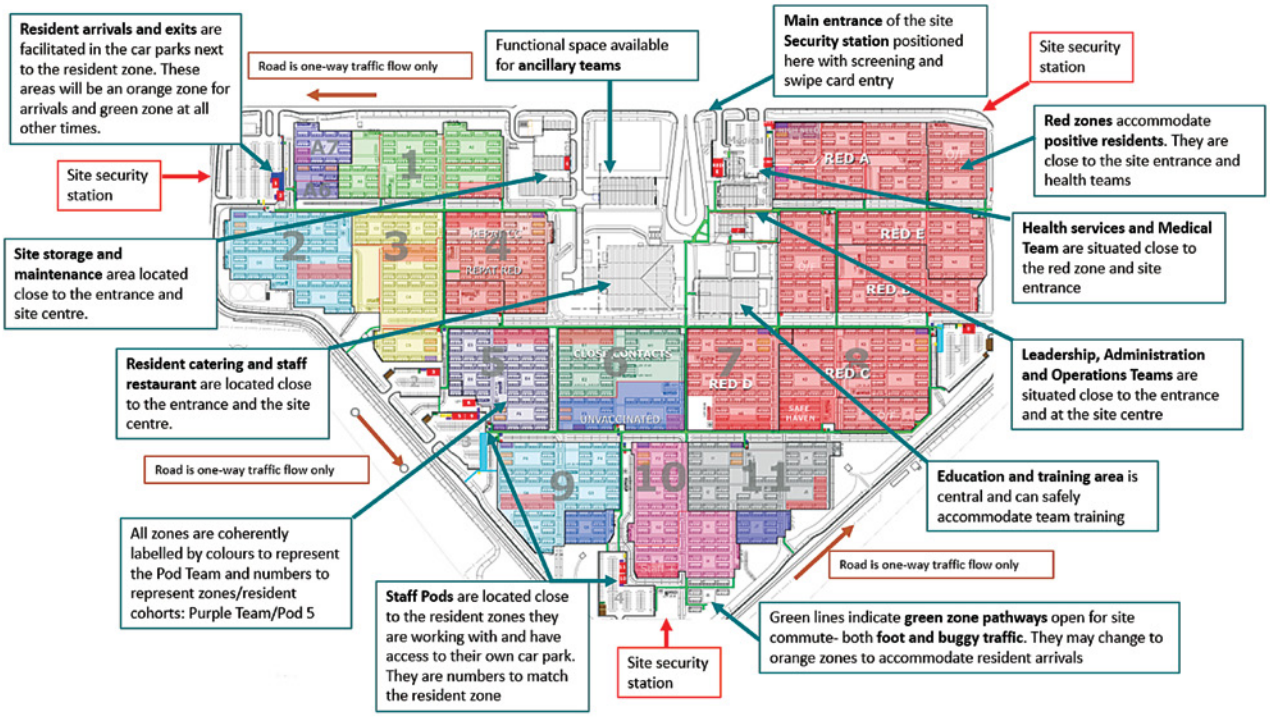
The site is required to have a coherent approach to designating resident and staff zones ensuring these are well mapped. Each zone requires a logistic entry/exit point where staff can don and doff safely and a security station can be established. Zones need to be signposted and fenced with maps of zones sent frequently to teams across the site to ensure awareness of any changes to red and orange zone allocation, or changes to the perimeters of zones. The core staff administration and leadership team areas should be central to the site, easily accessed by all staff and visitors.

Across a large site the segregation of zones facilitates better site functionality by:

- Having a security station based at the site entrance where all staff and visitors can be screened on arrival and resident traffic facilitated to avoid delays.
- Allocating zones with Pods (office/team areas) across the site by dividing the site into areas which provide each space with access to parking, office space, toilets, resident arrival/exit areas, donning & doffing stations and laundries in each resident zone.
- Implementing a system to recognise teams and zones, for example, Purple Team is allocated to work in Zone 5. When the residents from Zone 5 have exited, Purple Team may then be allocated to Zone 3 to care for the next cohort of residents whilst Zone 5 undergoes maintenance.
- Changing zones into a red or orange zone as required. For example with times of high level of community transmission and positive cases more red zones may be required.
- Site policies include IPC guidelines to manage IPC for zone changes.
- Red zones are situated close to the health centre and main entrance, this facilitates easy and fast access to any positive resident who may become unwell and require transfer into acute care services.
- All main service provision areas are located in a central space (in perspective to the facility and each other). This includes (but is not limited to) leadership, administration, education and training, operations, catering, cleaning and other ancillary teams.
- A one-way flow of traffic around the facility reduces road traffic hazards.
- Site security stations are established at strategic points around the perimeter of the facility to monitor points of high traffic flow, high resident and staff numbers and/or areas where site fence lines may need to be observed for risk of residents absconding or people trying to enter the site.
- Muster points for emergency evacuations are located in logical and safe areas which are easy for staff to access.
- Site policy provide clear guidelines for pathways which are used by both pedestrians and buggies.

A comprehensive overview of zones in quarantine is presented in *Section 2: Infection prevention and control*, this section also presents how the donning and doffing stations are structured and stocked with diagrams and posters.

There also needs to be clear communication and identification of muster points for site evacuations in the case of a fire or other onsite emergency, these processes are detailed in the Processes topic in Section 1.



Section 1: Figure 4: The Center for National Resilience quarantine map depicting structural approaches to ensure site functionality.

1.3.2 Types and sizes of infrastructures (built environment)

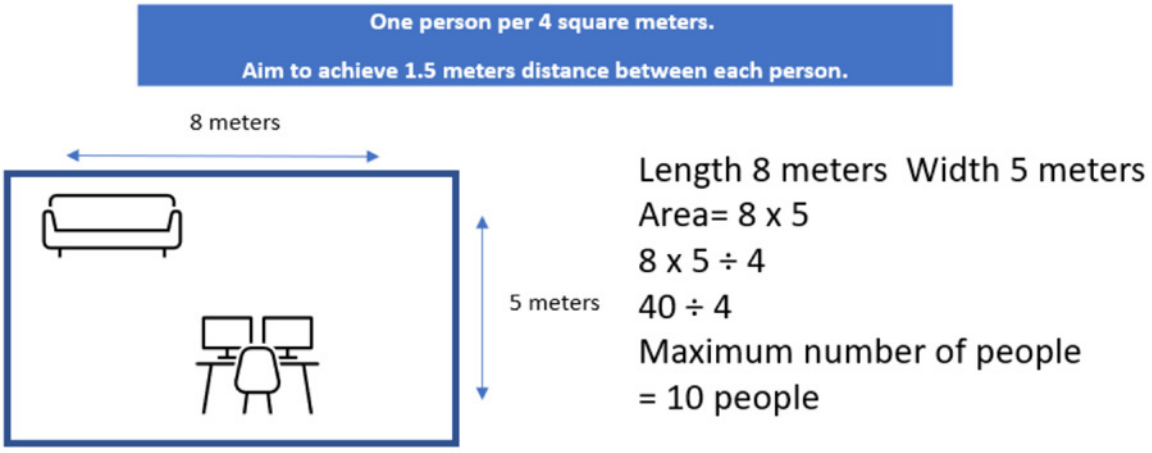
It is now known the structural design of quarantine facilities contributes greatly to transmission risk. Open spaces with good ventilation (outdoors areas ideally) are deemed safer in respect to disease transmission. In enclosed spaces, poorly ventilated or crowded areas viral particles are more likely to be encountered with research demonstrating the coronavirus remaining viable (airborne transmissible) for up to 20 minutes with most viral particles losing viability for infection after 5 minutes.[8,9] This finding highlights the risks in many clinical areas and hotels with these infrastructures often having smaller closed-in rooms, lack of windows or windows which are unable to be opened (due to increased risk of falls from windows and for internal building maintenance) and a central ventilation system which recycles air and does not routinely include filters. There is also the risk of communal spaces and other common enclosed areas such as lifts, corridors and bathrooms which often lack adequate ventilation and air circulation.

Quarantine services such as CNR noted much of their success in recording no transmission of COVID-19 between staff and residents to high-risk processes such as health checks and viral screening being conducted in an open-air and tropical environment. In accompaniment with staff IPC practices and use of effective PPE this significantly lowered the risk of encountering viral particles. A combination of control measures needs to be implemented to ensure the spaces being used for quarantine are safe for staff and residents, this includes: implementing standard precautions of staying home when unwell, physical distancing and hand hygiene, encouraging vaccination (if available), allowing staff to work from home (if achievable), rotating staff working from home, reviewing the airflow and ventilation systems, increasing cleaning with a focus on high use areas (such as door handles), rotating staff through areas of high use such as cafeterias.

Infrastructure and environmental considerations needs to ensure:

- Operability- systems and resources are safe and easy to operate
- Safety- systems, buildings and resources are safe to use, occupy, and maintain.

Safe Work Australia provided a number of guidelines to calculate the number of people that can safely be enclosed in one space.[10] This involved measuring the dimensions of all enclosed rooms and diving this by 4.



Section 1: Figure 5: Implementation of physical distancing measurements for an office space with a length of 8 meters and width of 5 meters.

Once the room measurements have been identified, additional consideration will need to be given to the type of tasks to take place in the room, reducing the amount of time people spend in the room together, and signage of room capacity requirements and physical distancing reminders. This may include putting signs on tables or desks which clearly indicate where people will sit so, they are physically distanced and how many can sit at the table/desk. Limiting the amount of time people spend together is also recommended in smaller spaces and the facility can implement strategies such as the use of PPE (masks) when crossover of shifts occur to further reduce transmission risk.

Section 1: Figure 6: recommendations of seating arrangements to maintain physical distancing.

1.3.3 Infrastructure and residents

A large-scale quarantine facility needs to provide accommodation for a variety of residents and ensure they meet the needs of those living with a disability, family groups, couples and people quarantining alone. The space should be conducive to mental and physical health and wellbeing recognising that people in quarantine can still exercise and complete activities (refer to *Section 4: Resident Care* for guides on staying active in quarantine). The resident space needs to be divided into areas to cohort residents.

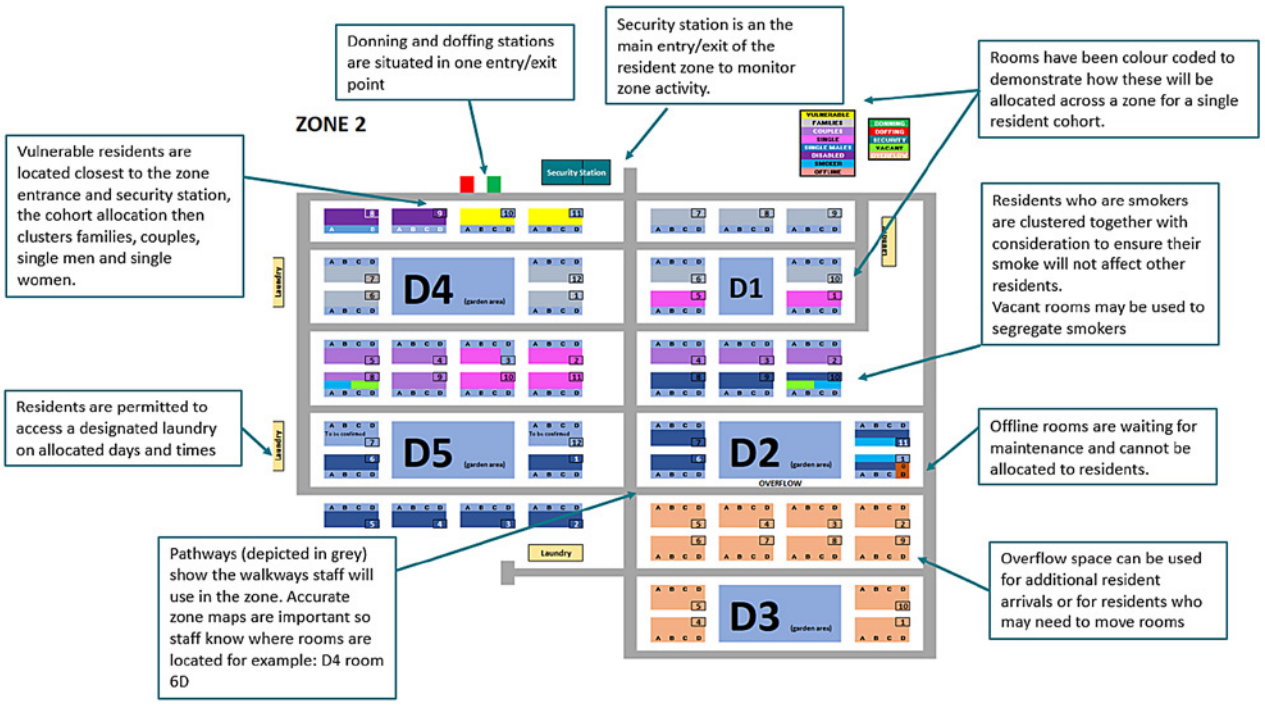
Characteristics and work practices of CNR that were conducive to better health and well-being and infection control risks for residents and staff can be identified as:

- Conducting all risky activities such as viral screening and daily health checks outdoors.
- Requiring residents to wear a mask whilst outside their room.
- Instruct staff not to enter residents' rooms (noting residents do not wear masks in their room) unless it is an emergency situation. If staff need to enter resident rooms they are to keep the door open to promote ventilation and remain in view of their buddy so any breaches in IPC practice is detected (in cases where the staff member may not be aware they have breached IPC).
- Instructing staff to stand to the side of resident's room doors when they are opened so they are not facing the air gust that will occur.
- Instruct staff to stand to the side of residents when conducting any viral screening or health checks (so they are not face to face) and to maintaining a physical distance of 1.5 meters or greater whenever possible.
- Individual air conditioning systems for each resident room.
- Pod teams cohorted into one office/team space reducing interaction with other staff.

Resident zones are structured to ensure the residents feel safe and Pod Teams caring for them can easily access all residents in their zone. Each Pod Team will be in an office/team space located close to the entry/exit point of the zone with security staff based at this point at all times. One Pod Team is allocated to care for a single cohort of residents for their entire quarantine stay. Pod Staff will not move between teams as an IPC practice to reduce risk of transmission, noting that residents from different world locations may be exposed to different disease variants. The one Pod Team to one resident cohort minimizes risks of introducing variants to other teams and pods in the case a staff member became infected from a resident.

Considerations of residents' zones to ensure site functionality include:

- Having only one entry/exit point for each zone (noting there are additional emergency exits identified in the need to evacuate residents).
- Practices to enhance personal safety and feelings of security by segregating families, couples, single women and single men. For example, single women are located closer to families and couples and single men are clustered together.
- Segregating families to reduce the risk of children from different families playing together.
- Reducing opportunities for residents to come in contact with each other by setting site policies of all residents remaining on their balcony (with balcony perimeters marked) and setting laundry schedules with dates and times resident can access this.
- Positioning vulnerable residents in rooms at the zones entry/exit point so they are quickly accessible by staff and can access the security staff if required.
- Segregation of smokers from other residents.
- Using a coherent and intuitive resident management information technology system (RMITS) to manage all resident room allocations.



Section 1: Figure 7: The Center for National Resilience quarantine map depicting residents zone structural approaches to ensure site functionality.

1.3.4 Cohorting residents

The quarantine site needs to be divided into areas to accommodate the cohorting of residents entering the facility.

To facilitate a safe environment the public health approach of organising residents into cohorts is recommended by:

- Keeping people travelling together cohorted together (for example everyone on one international flight would be considered a cohort) or by cohorting everyone arriving on the same date (used for domestic residents), this reduced the risk of exposure to other disease variants and to infecting people who are at the end of their quarantine period.
- Separating groups within the cohort into vulnerable people, families, smokers, couples and women travelling alone and men travelling alone.
- Placing families, couples and women travelling alone or any identified vulnerable residents closer to the security and staff entry point.

1.3.5 Room descriptions and types

Example of rooms with description

Normal Room

- 1 person per room
- 4 people per building
- Entry from the veranda, single bed, small bathroom

Family Room

- 4 people max
- 4 people per building (entire building is a family room)
- Entry from the veranda, connecting rooms, single bed in each room, small bathroom in each room

Disability Room

- 1 person
- 2 people per building
- Entry from the veranda, larger/spacious bedroom with single bed, larger/disabled bathroom, wheelchair access

Room allocation process

1. VULNERABLE (VUL)

VUL is 70+ years of age or has medical issues. Start with the allocation of vulnerable residents to rooms. Once allocated, highlight the letter of the room number in **YELLOW** for reference.

2. DISABLED

Refers to people living with a disability and rooms have ramp access with modifications to enlarge the interior space for easy wheelchair access. Once allocated, highlight the letter of the room number in **DARK PURPLE** for reference.

3. SINGLE MALES (SM)

Must be allocated together. Try to keep similar aged men together for company. SM are required to be separated from **SF** to minimise contact, such as different Laundry Blocks (if feasible). Once allocated, highlight the Resident Number in **BLUE** for reference.

4. SINGLE FEMALES (SF)

Must be allocated together. Try to keep similar aged women together for company. SF are required to be separated from **SM** to minimise contact, such as different Laundry Blocks (if feasible). SF can be placed next to families and couples if they have another SF next to them for company. Once allocated, highlight the Resident Number in **PINK** for reference.

5. SMOKERS

Must be kept away from other residents and grouped together while still implementing the above placement rules. If allocation is tight, they can be put in the same block as non-smokers if there is at least one room free between them. Once allocated, highlight the letter of the room number in **BLUE** for reference. Preferably, smokers need to be in a block together and as far away as possible from other residents.

6. FAMILY (FAM)

Must be grouped in the same blocks, while trying to keep families with similar-aged children away from each other where possible to avoid children wanting to play (increases risk of disease transmission). The oldest female in the family group is classed as the primary traveller and is allocated the first room in the building. Once allocated, highlight the Resident Number in **GREY** for reference.

Families will only go into a Family Room on a case-by-case basis, e.g. single parent with 3 children, special needs children, a family of 4 with children under 10.

7. COUPLES (CPL)

Should be grouped by similar age. The female is always classed as the primary traveller and is allocated the first room. Once allocated, highlight the TWB Resident Number in **PURPLE** for reference.

8. UNALLOCATED ROOMS

All unallocated rooms are highlighted in **GREEN** for On-Site reference.

Images represent rooms allocated to families and people living with a disability.

1.3.6 Air circulation (heating, ventilation and air conditioning systems (HVAC))

Air circulation and ventilation recommendations changed as the COVID-19 pandemic progressed as a better understanding of disease transmission emerged. This at times occurred through super spreading events which revealed the resilience of the virus and weaknesses in systems and infrastructures. Myths regarding transmission had to be dealt with as the COVID-19 infodemic led to the belief the virus was similar to bacteria and multiplying in air conditioning systems. The problem was identified as recycling of air with many systems not drawing in clean air but recycling air within a room, (which would include coughs, sneezes, and laughs which carry higher levels of droplets and airborne virus particles) meaning there can be a build of viral particles.[11] In addition, it was highlighted the position of most air conditioning units was high and this pushed expelled air down towards people.

Air conditioner systems considered high risk for disease transmission were identified as those that:

- used recycled air,
- did not implement high-efficiency particulate air (HEPA) filtration, and
- directed air directly down at people presenting a higher risk of exposing people to viral particles.

Recommendations to reduce transmission risk favour systems that draw in clean air and have individual systems for each room. There also needs to be a clear (and evidenced-based) recommendation for the number of people who can safely occupy an area so airborne transmission risk is very low. This calculation needs to consider the stability of airborne viral particles (relative to time) and surface transmission risks, current community transmission rates, the number of people, the size of the space, additional IPC measures in place such as wearing mask, time spent in a room and room ventilation.

On a broader scale, other factors such as air pollution, and chemical exposures can also be included within this field noting the risk from airborne transmission are exacerbated by the four factors of health, pre-existing conditions such as immune suppressed people, viral characteristics and transmission and behaviors.[12]

To further protect residents from viral transmission the use of certain filtering systems was a recommendation by the Centers For Disease Control (although research around their effectiveness is varied). The Minimum Efficiency Reporting Value (MERV) filter refers to the scale which represents the efficiency of the filter in removing varying sized particles (in this case viral particles). The MERV scale is rated between 1-20 with a rating of 13 or above considered most effective for COVID-19 and the high-efficiency particulate air (HEPA) is the specific type of filter required to remove viral particles.[13,14]

Upper room ultraviolet irradiation system (UVGI) involves the use of UV energy to render viral particles inactive/unviable so they are no longer infectious.[8] These were recommended for high

risk areas where there is more likelihood of infectious people, crowded spaces and spaces such as restaurants where people will remove PPE such as masks.

At CNR, HSQF the positive air pressure incidentally created in rooms (the air conditioner heating or cooling circulation builds pressure which is released when doors are opened, pushing air outside) was recognised as a risk even when dealing with residents in an outside environment. This risk was not associated with the circulation of the virus in ventilation systems but in the air movement created by them when doors were opened to a confined space (resident rooms). To address this, staff education included recommendations to stand away from the door when it was opened, so air exiting (from the pressure of the air conditioning build up inside) did not blow towards staff.

1.3.7 Site hazards

Referring to site hazards capture those factors which are:

- accidental (behaviourally or infrastructure related),
- factors that become evident after the initiation of a strategy/actions, or
- known hazards which need to be accommodated as part of the IPC process.

At CNR site hazards included factors such as fences and gateways which may catch and tear PPE, the use of buggies (and other vehicles) to mobilise staff and resources for activities such as large-scale resident viral screening and weather elements affecting the integrity of PPE.

Risk mitigation for these aspects included:

- An onsite work health and safety team to conduct regular inspections of site infrastructure in relation to the risk posed to staff.
- Education and training implemented for the use of buggies (and the requirement of a current drivers license) with site road rules specific to the buggies.
- Education and training for the use of PPE in wet weather and weather warning sent to staff when heat waves or storms were a concern.

1.3.8 Workplace inspections

The quarantine workplace must be inspected by competent personnel at least annually, with copies of each inspection forwarded to the Work Health and Safety (WHS) Team. These inspections will identify hazards in the facility and ensure systems are operating in the way intended.

This Workplace Inspection Checklist will be used by the WHS Team to:

- Review and analyse workplace hazards.
- Identify existing and potential hazards and determine their underlying cause.
- Review how effective hazard controls that were previously implemented were.
- Identify areas which need special attention due to the nature of work carried out.
- Identify areas which need attention where there is signs of stress, wear, impact, vibration, heat, corrosion, chemical reaction or misuse.

Refer to Appendices B for an example of the WHS checklist used for inspections of site infrastructure.

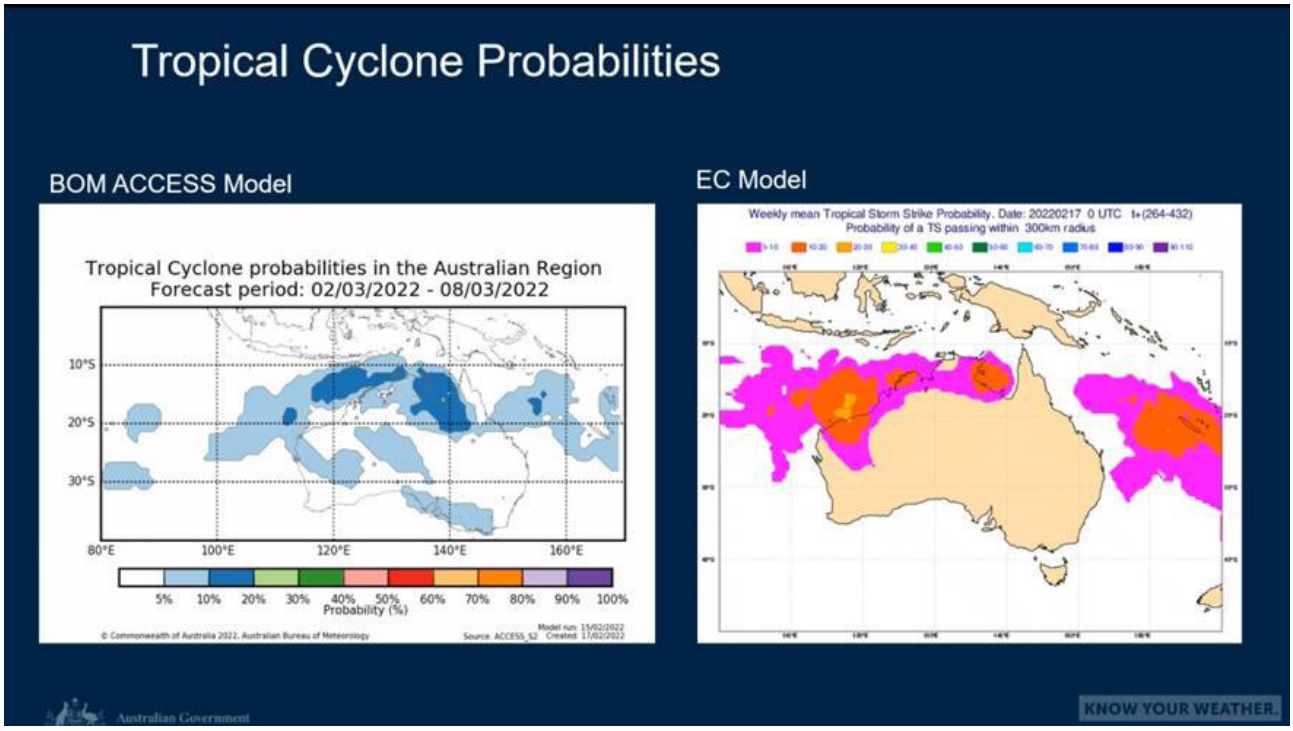
In addition, the standard auditing requirements for quarantine services require any capital works carried out on site to be undertaken in compliance with the Building code 2016.[15] This includes:

- Ensuring any work is undertaken by a builder or builders accredited under the Australian Government Building and Construction Work Health and Safety Accreditation Scheme.
- The work undertaken under the Australian Government Building and Construction Work Health and Safety Accreditation Scheme must:
  - Be complete and free from defects or omissions
  - Not cause any legal or physical impediment to the use and occupation of the property and the works or designated use; and
  - Be fit for the designated use.

1.3.9 Environmental (weather) considerations

Understanding environmental factors that contribute to disease transmission and infection prevention and control (IPC) measures is vital to know where to invest in infrastructure (architectural and operational design, modification or development), resources, education and training and site process (Standard Operations of Practice). There need to be systems in place to protect healthcare workers and residents.

The influence of weather on a quarantine sites infrastructure and practices will likely depend on which world hemisphere it is placed relative to whether site practices will be occurring indoors/outdoors. In areas where weather will be an influential part on the timing of routine practices such as with CNR where due to the tropical heat and outdoors setting, resident health checks and viral screening rounds were conducted early in the morning or later in the afternoon to avoid periods of higher heat risk. There also needs to be a formal communication channel with the Bureau of Meteorology for updates of concerning weather patterns including cyclones, flood warning and heat waves.



Research demonstrated that climate is a determining factor in COVID-19 incidence with those geographical areas experiencing lower temperatures and humidity having higher incidence of COVID-19.[16]

Other predictions indicate the incidence of COVID-19 will increase over winter months and decrease during warmer months.[17]

Although it was understood that being in hot climates did not protect communities from COVID-19 (other factors such as overcrowding would confound this), the COVID-19 virus like many others was found to be not as viable in hot conditions. This being said, research indicated that direct sunlight and heat did contribute to inactivating the SARS-CoV-2 fomites on surfaces.[18] This aligns with the use of ultraviolet rays being used to eradicate viral particles outlined in the UVGI systems.

Additional weather elements to consider are the effects of rain and sunlight on PPE integrity, this was a very real hazard for staff at HSQF where resident interaction occurred in an outside environment in the tropics. During October to May the build-up and tropical; rain season occurs which brings heat waves causing staff to sweat in PPE (personal health hazard related to heat stress).

PPE is not effective when it becomes wet.

Wetness can be due to rain, sweat or increased dampness in masks associated with exhalation.

Heat and wet weather strategies in place at CNR included:

The CNR accommodation village is spread over 60 hectares with individual rooms in banks of four spread over several large quarantine zones. The staff providing services to the residents are all working in the heat and humidity whilst delivering services including health, wellbeing, catering, facilities and maintenance services.

Managers and POD Leaders were aware of daily weather forecasts at start of shifts and informed staff of possible working hazards throughout the day. Responsibility was placed with individuals to monitor their own health in relation to heat stress and to monitor their buddy when working in the residents zones and wearing PPE.

- All staff were reminded to regularly check the Bureau of Meteorology weather advice during the wet season and build-up when heat waves and tropical storms are occurring.
- Work tasks were to be planned around expected weather events where possible and staff were to be mindful of lightning in the area at all times.
- Staff were to avoid becoming wet during work where possible.
- Staff who enter zones were encouraged to keep a spare pair of shoes and change of clothes at work during the wet season.
- Staff entering zones had access to umbrellas for light rain protection, noting umbrellas will require sanitising when departing a zone.
- Staff must take cover and all outside work must pause during heavy downpours of rain, noting it is preferred that staff shelter inside a fixed building where possible.
- Staff must take cover and all outside work must pause during lightning/electrical storms.
- If caught in a sudden downpour, walk safely to cover, staff were advised not to run in the rain due to trip hazards.
- If PPE becomes wet, staff were to return to a doffing station and remove PPE in accordance with doffing procedure. Staff must then don dry PPE before re-entering the zone when the weather event has ended.
- Staff needed to close the PPE container lids at Donning stations, when finished, to avoid them filling up with rain or being blown around the site in wind gusts, noting all PPE was kept in plastic tubs which could be sealed from environmental and fauna hazards (such as humidity and rain, and snakes and spiders).
- Staff were to ensure they close all bin lids at doffing stations, when finished doffing to avoid them filling with water.
- Arrivals during weather events were to remain in transport vehicle until safe for staff in PPE to complete arrival on boarding.
- Departures will cease during heavy downpours or lightning storms.

It is recommended the site identify a building can be utilised to keep residents safe until they are able to enter the zone. In such times all appropriate zone indications must be applied (PPE, physical distancing). This needs to include barrier tape and orange lights to notify other staff onsite where possible (and include this in a SMS communication to all site staff) and in all occasions staff supervision of area must be maintained. In these cases the area must be cleaned before re-use.

1.3.10 Heat health at CNR

Exposure to the tropical environment in outdoor workers across all sectors can result in heat related illness and the cumulative exposure to heat over several days can result in chronic heat hangover symptoms. Heat hangover symptoms include thirst, fatigue, headache and irritability and can occur with cumulative exposure and may result in increased workplace injuries and potentially in setting PPE breaches. Heat hangover also negatively impacts on individuals' sense of well-being, sleep patterns, appetite and family relationships – it is important to prevent this happening.

Staff at CNR worked with an ambient temperature of 24.7-32°C with high humidity levels reaching 80+% from November to April in the wet season and 21.6– 31.8°C during the dry season. All staff working at CNR are therefore at risk and must take steps to mitigate the risk.

The effect of working in the tropical environment is compounded in the quarantine facility as staff must wear personal protective equipment in the orange zone to protect staff and the community from COVID-19 infection. Full contact PPE includes wearing a gown which creates a microenvironment around the skin due to a higher thermal resistance and lower water vapour permeability of the materials compared to usual clothing. Consequently, heat loss capacity via the skin surface is greatly reduced leading to shorter work tolerance times and a reduced physical and cognitive performance.

All staff briefing before daytime intake or bulk exits, or to any contractors when staff will be exposed to the heat for a longer period of time, must include a plan and reminder to staff about being mindful of their heat health. If a staff member has a heat related incident, this must be reported in the Risk Management System and reviewed by the Work Health and Safety and Director of Nursing to identify what were the causes and if improvements in work processes is required to prevent a repeated event.

The resident information booklet includes heat health information including causes, ways to prevent and what to do if affected by heat. During October to March, daily wellbeing checks are to include verbal reminders and/or explanations of heat health.

Preventing heat related illness

1. Complete heat health training (include this in site induction sessions/online presentation/WHS snapshot training).
2. Avoid direct sun as much as possible.
3. Plan staff workloads so they are in the orange zone for the minimum time possible.
4. Remind staff to self-monitor and remove themselves from the heat for a cool break if they are feeling too hot and/or thirsty – encourage staff to communicate with their buddy and team leader to advise they need to have a cool break.
5. Staff are required to monitor their workmates and suggest a cool down break if they appear to be affected unduly by the heat.
6. If staff need to be in the orange zone for longer than an hour they must plan to have a cool break for at least 10 minutes for every one hour spent in the orange zone – set an alarm to remind themselves to have a cool down rest at the end of each hour. They need to be disciplined with this rule – pushing through another 10, 20 or 30 minutes will result in cumulative elevated core temperatures that will impact on their health and well-being. Leaving the orange zone and having a cool down break in the Teams pod or office space or in the staff dining area.
7. It is recommended that staff plan to ingest ice during cool down to lower core temperature more effectively - Slushy machines/Zooper Doopers (flavoured ice sticks) are available to staff for this purpose.
8. Ensure hydration – staff should drink to their thirst level and based upon their experience.
9. At end of shift at home use air-conditioned environment, cool shower, pool and/or ice slushies to accelerate the drop in core temperature and heat recovery. If staff are still sweating following their shower, they require additional cooling. Recovery will be delayed while their core temperature remains elevated.
10. Eat healthy meals and avoid skipping meals.

1.4 Work health and safety

The Work Health and Safety Team are situated with the Operations Team and are onsite to ensure there are safe work practices and infrastructure playing a lead role in the ongoing development of a culture of safety and reduction of work-related injuries (or in the case of quarantine transmission of infection). They are predominantly auditing the site to ensure they have safety standards that are aligned to those presented Work Health and Safety (National Uniform Legislation) Act 2011 and Work Health and Safety (National Uniform Legislation).[19,20] The CNR was guided by the NTWorkSafe Codes of Practice supporting the strategic plan with the quarantine service falling into the health and community services industry area.

This section continues with the presentation of the site emergency management plan, WHS committee, risk management and general practices of the WHS team within the quarantine facility. An example of the WHS Team audit process for buildings and structures has been presented in *Section 1 Site infrastructure & environmental considerations.*

The work health and safety team (WHS) managed risks to the health and safety of everyone onsite ensuring legislation and practices are maintained to provide a safe work and accommodation environment. The WHS team will conduct audit across buildings, audit practices, review risk management processes and any incidents which may occur on site. The establishment of a WHS Committee ensures each team has representation with decisions occurring in regard to site safety. The onsite team consists of (at a minimum) WHS Manager and WHS Safety Consultant.

The WHS team have a critical role in the development, implementation and continuous improvement of the quarantine workplace health and safety program, ensuring the provision of a safe and healthy work environment for all employees, visitors and residents.

The WHS teams responsibilities include but are not limited to:

- Comprehensive knowledge of the relevant legislation and regulation associated with WHS and transcribe this for use within the quarantine service.
- Facilitate induction of contractors and new staff related to site WHS
- Conduct regular WHS inspections and daily WHS walkthroughs.
- Ensure WHS records are kept in a central location.
- Provide site-wide advice on cyclone management, evacuation management, emergency control, hazards, traffic management and other safety issues as required.
- Conduct all facility inspections including residential areas/risk assessments and control recommendations back to the relevant organisation.
- Contribute to the site induction for all new staff and visitors entering the quarantine site.
- Provide advice and support to the Leadership Teams and management on WHS-related issues and promote positive behaviours.
- Ensure all staff are trained in emergency procedures, SOPs and any other mandatory training or licences.
- Undertake risk assessments and updates of SOPs.
- Monitor, respond to and manage the entries into the sites risk management system.
- Assist with the management of entries into the risk management database.
- Assist with the management of Workers Compensation Claims.
- Attend site Leadership Team meetings (daily), conduct monthly WHS Committee meetings (with agenda and minutes) and prepare WHS monthly status report for the site.

1.4.1 WHS Committee

The site WHS Committee will consult on WHS issues that affect employees located at the quarantine site and hold a minimum of 4 meetings a year. The committee consists of the Committee Chair and Secretariat, the organisation WHS managers (noting if there are contractors and multidiscipline organisation working side by side onsite they will likely have their own EWHS Managers) and health and safety representatives for each work unit (for example, Medical Team, Health Staff, Education and Training, Infection Prevention and Control). A minimum of 5 attendees is required for WHS Committee meetings

The committee will document control all proceedings of the WHS Committee and abide with the relevant Government Privacy Legislation and relevant Codes of Conduct.[19-21] A record of meeting outcomes along with the action items will be uploaded in sites record management, with a hard copy displayed on the WHS noticeboard which should be visible for all staff onsite.

The functions of the WHS Committee is to:

- Facilitate cooperation between the Person Conducting the Business Undertaking (PCBU) and workers in instigating, developing and carrying out measures designed to ensure the workers' health and safety at work; and
- Assist in developing standards, rules and procedures relating to health and safety that are to be followed or complied with at the workplace; and
- Any other functions prescribed by regulations or agreed between the PCBU and the committee.

The Committee will

a. Provide a forum to oversee, review and monitor WHS related matters, and report to the site Manager
b. Where identified as a need, and within capacity to do so, address local WHS related matters within the scope of relevant WHS Legislation, Regulations, and the WHS Policy.
c. Communicate directions provided by the site Manager.
d. Committees table their report template via their hierarchical structure, for submission to the site Manager as required.
e. Review the Risk Register to ensure compliance and safe outcomes to actions where required

1.4.2 Monthly status reports

These reports demonstrate the WHS activities taking place with specific focus on: development of and review of site Standard Operations of Practice (SoPs), significant outcomes from WHS meetings, risk monitoring and control progress, WHS training occurring, procurement or work orders resulting from WHS audits, site inspections being undertaken and significant findings, and planned future activities.

Section 1: Table 3: Example of items presented in the monthly status reports for the quarantine service.	
Agenda item	**Description**
Development or review of Standard Operating Procedures (SoPs)	The WHS Team are required to review the Standard Operating Procedures (SoP) for individual activities to ensure they provide a safe work environment. This may include a review of existing SoP where an incident or feedback has indicated that a change in practice is required. • Development of heat health SoP for staff working in zones. • Review of SoP for staff operating buggies onsite. • Maintaining safe machinery and structures • Provide and maintain adequate facilities (shade or wet weather cover) • Extreme weather, including extreme heat, cold, hail, lightening or strong winds
Site audits	WHS Audits determine what legal responsibilities are being met and what areas have gaps in safety management. These audits aim to assess systems, environment and people. Covering specific areas as listed below including training and competency of the facility related to WHS. • floors, passageways and stairs • entry and exits • fire safety equipment • ladders • platforms • roadways and ground conditions • ventilation • statutory requirements (WHS policy and injury management policy/procedure) • ergonomics • stacking and storage • personal protective equipment • chemical and dangerous goods • compressed gasses • housekeeping • material handling equipment • lifting gear and equipment • electrics • fire protection and explosion • first aid • office layout • workstations • VDUs monitors and screens • Storage • Emergency procedures • Emergency exits and maps *The full infrastructure audit form is located in the section on infrastructure and environment

Risk management entries	Every entry into the risk management system (RMS) is reviewed by the WHS as part of their responsibility towards staff, visitor and resident safety onsite and in the case of workers' compensation is required. • Entry for staff member who slipped on steps, steps had become slippery due to wet weather and action required to install anti-slip measures. • Verbally aggressive behaviour towards staff by residents.
WHS Training	Specific training is undertaken by the WHS team (and not the education and training team) • Staff and Contractor induction • Emergency Evacuation Procedures. • Fire extinguisher training.
Procurement & work orders	The WHS team will submit requests for equipment or work to be undertaken to maintain site safety. • Printing of Muster Point signs and emergency exit maps. • Testing of all fire extinguishers and smoke alarms. • Rolls of hazard tape to mark steps currently deemed hazardous to staff. • Safety equipment such as safety vests, Traffic Control light sticks.
Site inspections	Site inspections are different to site audits in they involve a general visual review to identify and report potential hazards that could be removed or avoided and allow for effective risk management in the workplace. They review the effectiveness of existing controls implemented in the workplace. An effective workplace inspection will look at the environment, equipment, and work processes. • All portfolios are reminded to clean up any outstanding clutter as per the wet weather clean-up protocol. • Buggy charger seen to be sitting in water

1.4.3 Emergency management

Emergency management onsite was led by the work health and safety team under the supervision of the Director of Operations. All staff onsite (contractors, health workforce, leadership teams etc), were required to complete an induction package that introduced them to the site emergency management protocols. This session presents:

- The site layout and specific zones inclusive of emergency muster points and evacuation plans, traffic management and onsite hazards to be aware of.
- The emergency responses aligned with the Emergency Codes as presented by the Australian Standards AS 4038-2010.1 [21]
- The incident response team, which include key staff in the incident response team and their specific responsibilities in the management of emergencies which impact on service delivery within the facility.
- Site media policy.
- Work health and safety roles and responsibilities including reportable incidents and staff responsibilities.
- Prescribe area and contraband rules
- Site policy and procedures which includes any relevant site Standard Operations of Practice which pertain to the Operations team and site logistics and infrastructure such as buggy driving.

A full overview of the site induction is presented in *Section 3: Health workforce* and includes the structure and content for staff orientation.

1.4.4 Emergency Management Plan

The Emergency Management Plan (EMP) is established to ensure a coordinated approach from all staff, regardless of agency or contractor to the emergency management protocols at the quarantine site in order to support the protection and preservation of life and property during an event.

The EMP ensures all staff working onsite know and understand what is required and expected of them in the event of an emergency. This needs to include the Emergency Code System and the roles and actions designated responders will undertake during and after an emergency. It includes site residential areas, administration areas, industry areas, gate house, roads, car parks and all other areas within the quarantine facility. All accidents, incidents and near misses must be reported onto the Risk Management System.

These procedures are designed to enable the safety of all personnel, visitors, occupants and first responders and they must be understood and acted upon by all persons who enter the site.

The Emergency Planning Committee (EPC) is a sub-working group of the sites Work Health and Safety Committee (WHSC) and are active in overseeing the EMP. The EMP provides guidance to the residents, occupants and visitor, enabling them to quickly and decisively respond to an actual or potential emergency which could threaten the safety of persons or property, or significantly disrupt the buildings daily operation.

The EMP considers responses that can initially be commanded from staff on site which are primarily;

- Code Red – Fire
- Code Blue – Medical
- Code Orange – Emergency Evacuation
- Code Yellow – Facilities and Equipment Shut Downs and Overloads

This EMP also recognises instances when the immediate response and post incident investigations are commanded by the Police department. These include;

- Code Black – Assaults and Aggressive Behaviour
- Code Purple – Bomb Threat
- Code Green – Absconder

For the CNR, Northern Territory Emergency Operations Centre coordinate all environmental emergency situations and response within the Northern Territory. It is recommended the quarantine facility develops separate plans to comply with their local EOC strategies. This might include;

- Code Brown – Cyclones, fires, flood, earthquakes, tsunamis.

The **Site Controller** is the person who will be the single point of contact for all and any code or emergency responses within the site.

They will provide clarity in command, establish a single point of communication and conduct dynamic risk assessments on all incidents to determine level of response required.

The site controller is also the only person who can call 'all clear' when they are satisfied the code has been adequately addressed.

It is recommended the Site Controller for the quarantine service is the Director of Quarantine Programs.

Section 1: Table 4: Identification of key terms referred to in the Emergency Management Plan	
Site controller	The Site Controller provides a clear single point of command in all emergency responses and codes. The Site Controller is responsible for establishing communication and determining level of response required for each incident, based on their risk assessment. All situation reports (Sitreps) are to feed directly to the Site Controller. The Site Controller is the site commander in any emergency situation and all instruction given by the Site Controller must be followed. The Site Controller redirects and allocates any site resources and personnel they assess as necessary to the emergency response. The Site Controller decides if movement into any area must cease and instructs accordingly. The Site Controller will delegate tasks, including portions of command as they deem necessary but remains responsible for ensuring communication and response is conducted sufficient to the incident. The Site Controller calls 'All Clear' to any response. The Site Controller initiates all Debriefs, After Action Reviews and ensures documentation of actions, decisions, and lessons learnt.
Incident Control Post	Establishing an incident control post ensures personnel know where to go for direction should communications fail. The Site Controller is recommended to establish their control post at the main security gate house for any prolonged incident such as fire or those requiring resident relocations. From the security gatehouse, the Site Controller can monitor CCTV as needed, control site access and has external phone lines, computers and radios.

Chief Fire Warden	The Chief Fire Warden is the person or role nominated to respond immediately to an emergency alarm and determine in consultation with the Site Controller if an emergency should be declared at the Site. This duty needs to be manned 24/7 and sits with the Operations team. The Chief Fire Warden is trained as a fire warden and attends annual refresher training. The Site Controller can delegate duties to the Chief Fire Warden for fire incidents.

1.4.5 Raising the Alarm

Early Warning is an essential aspect of any Emergency Response. Training specific to raising the alarm and reacting once an alarm is called is incorporated into all Induction, Orientation and further staff training.

All 'workers' have a duty of care to themselves and others under section 28 (a) and 28 (b) of the Work Health and Safety Act to alert others of a threat to safety.[22]

All 'other persons' at a workplace have a duty of care to themselves and others under section 29 (a) and 29 (b) of the Work Health and Safety Act to alert others of a threat to safety.[22]

All persons on site must raise the alarm if they see or become aware of any incident or action that is an emergency or could develop into an emergency incident.

Options for raising an alarm for all persons on site includes;

- Calling the designated Emergency Call Number

For a fire can also be;

- Activating the Emergency Warning System (breaking the red glass panel on the fire alarm).

The Site Controller, the Chief Fire Warden and other trained personnel can broadcast further emergency information

- Automatic Early Warning Information System (EWIS) or alarm activation;

Staff with radio access can call a code over the radio by declaring the code and the zone twice.

"Code Blue Zone Foxtrot, 2, 6 Charlie; I Repeat; Code Blue Zone F, 2, 6 Charlie"

If a code is called over the radio, the Site Controller will respond and give further direction.

All Clear

The all clear will be given by the Site Controller upon advice of the relevant emergency services commander. Once given, Site Controller will assist with informing staff to return to work.

Reporting;

In addition to raising an alarm, the following mandatory lines of reporting are required;

Executive Director; must be immediately notified of

- Any serious event that involves residents, staff, contractors, visitors or infrastructure.
- Any event that could attract media attention.
- Any event that results in unplanned relocation of residents.
- Any event that results in major disruption of services.
- Any resident who is charged by Police of any crime while quarantining.

Directors and Service Provider Heads; Must be immediately notified of any event that impacts on their ability to function or within their areas of responsibility. For example;

- If a zone can no longer be entered, all service areas need immediate notification. This includes Security, Catering, Cleaning, contractors and the Department of Infrastructure Planning & Logistics (DIPL).
- If an event has caused changes to operational activities including access routes, access times or procedures, all service areas need immediate notification.
- If an action could result in possible police charges or disciplinary action against a staff member, the relevant service provider manager must be immediately notified.
- Any facility infrastructure event such as power failures, building collapse, water line ruptures or sewerage backflow must be reported to DIPL.
- Police must be notified if any crime has or is suspected of occurring.

1.4.6 Roles and responsibilities in the EMP

Section 1: Table 5: Roles and responsibilities during activation of the Emergency Management Plan	
Site Controller	Preparedness activities • Reviews the Emergency Plan • Ensures emergency plan education and training occurs • Maintain a current list of response staff • Ensures a mechanism for determining how many people on site at any given time • Ensures a safe work place which includes regular inspections • Ensuring fire equipment is regularly checked and serviced When the alarm sounds, or when advised of an emergency, the Site Controller can if needed: • Assume Command • Establish Communications • Acquire Sit Reps • Conduct dynamic risk assessment • Ensure the appropriate emergency service has been notified. • Instruct personnel • Coordinate any movements required • Brief Emergency Services on arrival. • Instruct cease of movement throughout any part of the site if required.
All staff	• Raise an alarm if you see an emergency • Know the codes • Know what to do in a code • Listen for codes and emergency notifications from PA, Via Text, or over Radio • Follow instructions.

Chief Fire Warden	Preparedness activities • Maintain required qualifications and training • Participate in training all staff in fire and alarm procedures When Automated Fire Alarm sounds • Respond immediately to all emergency alarms • Assume Command • Establish Communications • Ensure the appropriate emergency service has been notified. • Acquire Sit Reps • Identify or direct zone staff to identify cause of alarm if Automated Fire Alarm • Conduct dynamic risk assessment • Instruct personnel • Coordinate any movements required • Brief Emergency Services on arrival. • Instruct cease of movement throughout any part of the site if required. Non-Fire Emergencies • Accept Site Controller duties in non-fire emergencies if delegated from Site Controller, or • Maintain communications when responding • Provide sitreps to Site Controller • Take instruction

1.4.7 Code Orange- evacuation/relocation

If a Code Orange is called there may be need to evacuate and area, in quarantine this will involve relocating residents to a safe zone. Consideration needs to be applied to wearing of PPE of both staff and residents involved in relocation.

The Site Controller will consider the following as the preferred evacuation order:

1. Ambulatory - those able to self-move without assistance.
2. Semi-ambulatory - those requiring minimal assistance.
3. Non-ambulatory - those requiring full assistance.

Code Orange (Relocation) Action Card	
ALL STAFF	
STAGE	**RESPONSIBILITIES**
RESPONSE	Staff must be aware of Emergency Response Procedures and have access to Action Cards. Responses to emergencies take priority over all other work duties when instructed to do so by the Site Controller or their delegate. • Staff are requested to listen for and follow any announcements or instructions relating to any emergency. • If an announcement is made for 'movement into an area to cease' staff must not enter that area. • If an announcement is made that an area will be relocating to a muster point, staff from all other areas must stay clear of the path announced. • Staff must follow all PPE requirements instructed by the Site Controller or their delegate. • Any staff instructed to provide assistance by the Site Controller or their delegate must comply with that instruction. If Site Controller instructs you to assist in relocating persons; • Staff instructed to relocate persons will do so according to the RACE principle. • Staff will advise Site Controller of non-ambulatory or special needs persons within their cohort. • If possible, take hand held personal belongings (such as handbags and briefcases) with you when you leave. Do not return to collect belongings. • Confirm to Site Controller when you are leaving zone. • Confirm to Site Controller your arrival at muster point. • Walk quickly and calmly to the designated assembly area for your building as per the routes shown on all emergency relocation signs at all main area exits. • Maintain communications and give sitreps as required • Remain at the assembly area (in groups) until instructed to leave.
STAND DOWN	• Listen for the 'All Clear' from The Site Controller. • Listen for further directions from the Site Controller who will co-ordinate the movement of persons returning to effected areas. • Replenish first aid kits and disposables used if instructed to. • Report any incidents, breaches or non-compliance during emergency • Attend Debriefs and contribute to After Action Reviews as required.

1.4.8 Monitoring risk

Identifying, assessing and controlling hazards prevent workplace injuries and illnesses. The process of monitoring risk involves thinking about what could happen if someone is exposed to a hazard and how likely it is to happen. The types and levels of risk will be defined by the individual quarantine facility following the risk assessment strategy to consider:

- What type of risks can occur at the site (such as disease transmission)
- What could happen if a person is exposed to that risk
- What is the likelihood it could happen

A Risk Management System (RMS) to enter all risk-related incidents, hazards and near misses needs to be established as soon as possible, where able the site should implement the same system used by the local health facility.

> An incident can be defined as an event or circumstance that has actually or could potentially lead to mental or physical harm to a staff member, resident or visitor to the quarantine site.

It should be accessible by all staff and the appropriate training and support provided to competently use the system. Key steps in an effective risk management process are: identification, notification, prioritisation and classification, analysis and action and feedback. Incidents entered into the RMS need to be complete, concise, specific, factual, and objective. Quarantine staff and visitors have a responsibility to:

- *report workplace accidents in accordance with work health and safety standards and programs as soon as practicable after they occur.*
- *report workplace accidents in accordance with work health and safety standards and programs as soon as practicable after they occur.*
- *take care for their own, and others, health and safety and follow reasonable directions relating to workplace health and safety.*[23]

Section 1: Table 6: Example of risk management system entry	
Information required	**Description**
Who is reporting the incident	• The reporter's name and contact information • Note whether they are reporting the incident for themselves or on behalf of another person
When did the incident happen	• Incident date and time

Type of incident/incident classification	• Can be a near miss, incident or hazard.
	• Can be a person or non-person incident
	• This can be specific to the quarantine service as well as include generic incidents.
	• Specific to the quarantine facility
	  – Risk of disease transmission to staff
	  – PPE breach
	  – Resident absconding
	• Generic types of incident
	  – Slip, fall, injury
	  – Medication error
	  – Breach of confidentiality

Where did the incident happen	• Name of the quarantine service • Description of where onsite the incident occurred (for example at the donning station of Zone 5)
Who or what was affected	• Does this involve a worker, resident, equipment or building • Details of the worker or building or equipment (for example, registered nurse or door on female toilet in administration building) • If the incident involves a worker then a definition for that worker i.e.: registered nurse, payroll administration • As much information about the person as possible i.e.: date of birth, contact information.
What happened	• Information should be complete, concise, specific, factual, and objective. • Include any action taken (or note if no action taken) • Identify if the incident resulted in any harm to a person and if so further details of the harm
Witnesses	• Identify any other person who was present when the incident occurred
Investigation and follow up	• Who was involved in the investigation and why • Findings from the investigation
Incident closure	• When the incident was closed (fully resolved) • This may include if any external notifications were required such as with the Police.

1.4.9 Restricted premises

It is recommended that the service develop a risk matrix to respond to all identified risks for the site and include a mitigation plan for these. For example with large number of residents onsite which includes families, vulnerable people and children a risk mitigation against anti-social behaviour was taken in declaring the quarantine site a restricted premises.

> *Pursuant to section 193 of the Liquor Act 2019, the Quarantine Facility, 140 Howard Springs Road, Howard Springs is a declared a restricted premises. No alcohol is allowed on site and this restriction applies to all residents.*
>
> *Under the restriction, NT Police may enter the site without a search warrant, to search the premises (including all buildings) and anyone at the premises if they have reasonable belief there is alcohol.*
>
> *The police can:*
>
> - *Seize opened and unopened containers of alcohol; and*
> - *Issue an infringement notice for a maximum 20 penalty units ($3,160).*

Appendices C provides an overview of an approach for risk at CNR in relation to: Reducing the risk of COVID-19 at CNR.

Appendices D provides an overview of an approach for risk at CNR in relation to: Reducing the risk of COVID-19 transmission into the community from CNR by implementing a staff single site employment risk assessment.

By addressing risk the quarantine service can:

- Create a register for proactive risk identification and correlating risk reduction strategies and activities.
- Harvest information for site audits, to direct where more education and training is required or where site Standard Operations of Practice need to be updated.
- Develop a feedback cycle for those involved in reporting risk to demonstrate activities in working towards a safe service delivery.

Section 1: Table 7: Risk management severity scale used for incidents in quarantine.

Incident Severity Level		Description	Example
1	Critical	A critical incident that affects a large number of users in production.	• Flooding impacts resident quarantine red zone.
2	Significant	A significant problem affecting a limited number of users in production	• Code Blue in resident red zone • No PPE available
3	Moderate	An incident that causes errors, minor problems for users, or a heavy system load.	• Resident was aggressive and uncooperative with staff.
4	Minor	A minor problem that affects the service but doesn't have a serious impact on users.	• Aggressive behaviour by resident to security guard • Buggy charger sitting in water
5	Inconsequential	A low-level incident which causes minor problems	• False fire alarm • Refusal of entry to quarantine site

1.5 Communication approaches

A coherent approach to communication across the quarantine service is required to ensure safe site practices. In the early stages of the COVID-19 pandemic, communication was challenging for Leadership Teams with decisions often being made in a reactive rather than proactive cycle to quickly establish systems and processes. This often requires innovative use of technology and resources to develop inclusive communication strategies with access to information, clear hierarchical structures, and feedback cycles.

This section presents an overview of the communication strategies for implementation in the quarantine and isolation facilities, inclusive of communication with residents, staff and communication tools.

Approaches to communication need to be innovative and consistent. On site it is expected there will be daily Leadership Team meetings with the executive group (presented in Section 3 Health Workforce) and the resulting decisions and actions distributed across the site to the relevant teams. These meetings enable review of the pandemic response priorities occurring in other areas (which may directly impact the service), keep abreast of national and international disease trends as well as focus on the daily site functions and workforce.

Quarantine Facility Communication Tiers

Section 1: Figure 8: The tiers of communication within a quarantine and isolation facility.

Communication strategies during a pandemic also need to acknowledge two types of information which will need to be addressed divided into those aspects which are under the control of the facility and those which are not. This includes information and data that are external to the facility control such as the CHO Directions, government legalisation, or national calls for border closures. This information directly affects the site strategies and practices and can influence the number of residents and how they are managed onsite.

Internal factors such as the site's policy and processes are often directly influenced by external factors. Whether it be internal or external to the sites control, there is a responsibility to ensure all relevant news and information which will affect the staff, residents and site functionality is communicated across the quarantine facility effectively and timely.

Leadership teams can streamline how they will manage the information generated by these factors and develop the means to filter and communicate the relevant information out to the appropriate teams and residents.

Section 1: Table 8: Examples of the relationship between internal and external factors which contribute to site functionality.

External (information not controlled by the quarantine facility)	Internal (information controlled by the quarantine facility)
Disease trends (local, national and international)	Infection prevention guidelines and practices
Government legislation & CHO Directions	Length of stay in quarantine, resident intake and exit requirements and criteria
Weather reports	Site infrastructure and risk management
Commonwealth quarantine and isolation requirements	Site staffing ratios and distribution.

1.5.1 Site concierge system

The concierge system of the facility is often the first contact point for new staff coming onsite and contractors. They are situated to assist with general enquires of the site functions or redirect people and calls to the correct area and take incoming calls from residents with the site enquiry number (located in the Quarantine information booklet and in resident rooms). The concierge position is manned 24 hours a day, 7 days a week, they are responsible for answering and triaging the emergency call line. There is a wide variety of reasons residents call us, it may not always be in the scope of Northern Rise business on this site but as "Reception" you will need to know how to assist the resident with their enquiry.

The concierge position maintains the call log which is an important part of Reception/Administration. This help track call volume, assess continual problematic areas, and identify opportunities for improvement and growth. It is also a valuable tool when the site is required to look back at a previous issue/complaint.

1.5.2 Communication with staff

The Health Workforce and Pod Teams are whom the resident will interact with the most and it is therefore important that these staff remain informed with all information pertinent to resident care. As the main faces representing the quarantine facility, they need to be up to date with relevant government legislation CHO Directions, facility processes, rules and expectations for residents in quarantine. Ensuring communication of the right information to staff will install confidence with the processes and ensure the right messages are being related to residents.

Approaches to communication with staff should include:

- Leadership presence and visibility
- Responsive and timely communication of site processes and updates.
- Accessible policy and procedures with clarity for teams on what they should be accessing.
- Site newsletters and all site staff meetings (presented in *Section 3: Health Workforce*) to ensure a consistent (and anticipated) routine of communication is established.
- Acknowledge staff or teams who may be more isolated due to their roles (such as the Red Zone Teams).
- Have flexibility in the accessibility of information whilst still maintaining site confidentiality expectations.
- All relevant meeting for staff is accessible (face-to-face meetings are also online, and minutes are kept and provided promptly in a shared space).
- Opportunities and avenues for staff to voice concerns or provide feedback to management with a communication feedback cycle to acknowledge these.
- Intuitive quarantine and resident management information technology systems (RMITS), and health records.
- Public-facing information about the facility for residents and potential residents to access (inclusive of isolation requirements, site processes and routines).

1.5.3 Resident management information and technology systems (RMITS)

The site has a legal responsibility to ensure there is accurate record management for all residents entering the site. With a primary health function this needs to include confidential health records as well as a general RMITS which can be accessible and contain information for all site teams contributing to the resident stay (such as catering, cleaning, Pod Teams, Medical Team, Operations Teams).

1.5.3.1 Resident health records

It is recommended the site link with the local government health providers to implement the same health records system. This should be a client focussed electronic file management system which aims to generate one comprehensive up to date (whole of life) medical record for each resident which can be shared between the government health systems. This requires one identifying number for each resident/client only (also referred to as the hospital registration number or client identification).

This will require registered health professionals to have the training and access in order to record relevant resident information in these records (such as recording the residents daily health screening outcome or the provision of a script by the medical team). It is also recommended that where possible an additional function is added to the standard health records system for COVID assessment and treatment facilities (which would include quarantine and isolation facilities).

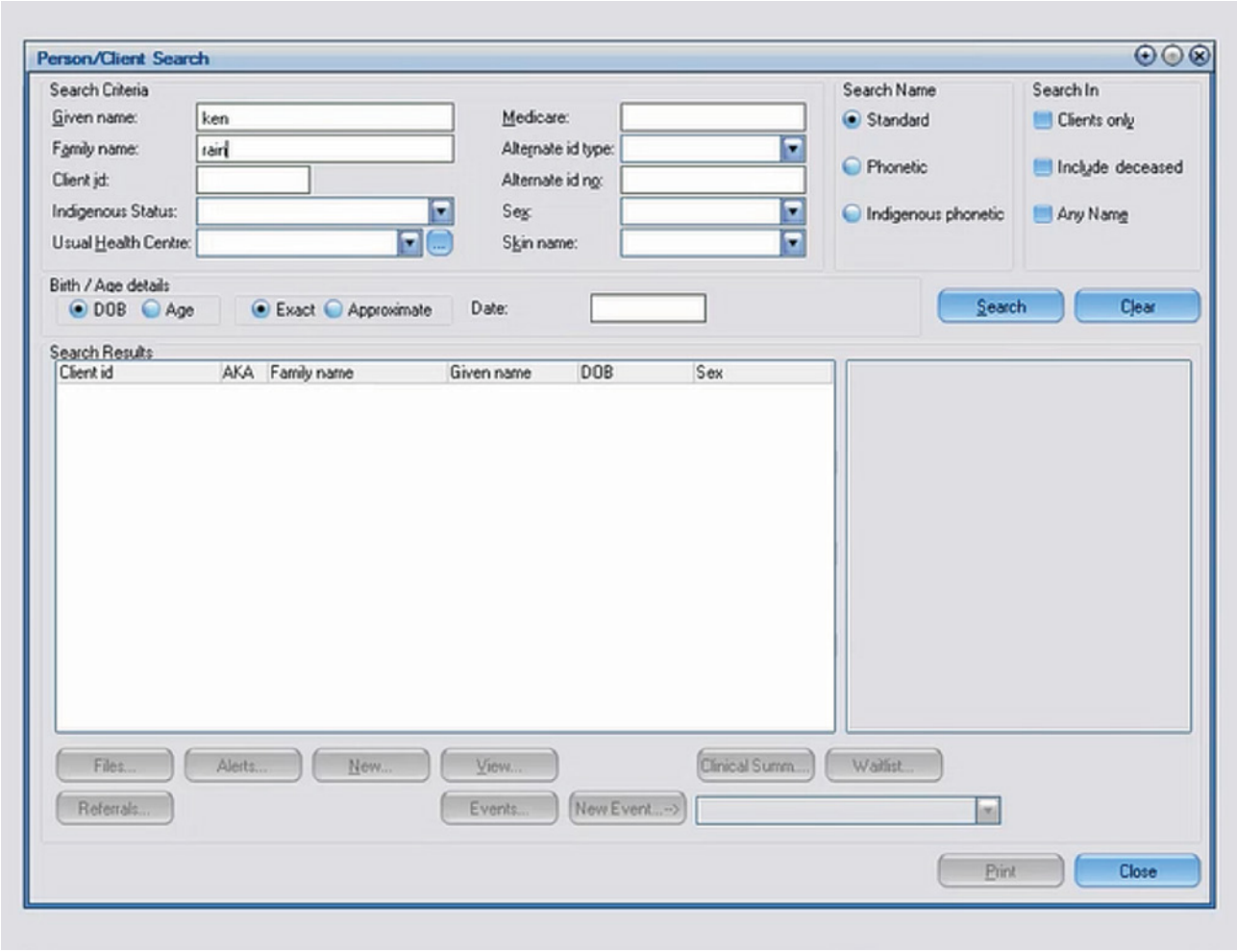
All information recorded in resident health notes is to be treated with the highest degree of privacy and confidentiality.

Confidentiality and privacy are crucial aspects of ensuring the comfort, confidence, reassurance and dignity of residents and a legal responsibility of the site and site staff.

Resident health records need to enable the ability to add or search for a resident record, insert or review a clinical summary, episode, diagnosis or problems register a visit or non-visit consultation, link to a medication chart (allows for recording of prescriptions issued as well as medication administered onsite), and flags resident alerts and allergies.

Minimal information requirements will include:

- Given and family names,
- Address
- Date of birth
- Indigenous status
- Medicare number



Section 1: Figure 9: Example of a client focussed electronic file management system.

1.5.3.2 Quarantine and isolation resident records

This system needs to record any interaction with a resident, and this will include confidential personally identifiable information about residents, therefore should only be accessed, used or shared by authorised users who have received training. These systems should also be fully auditable which means all access to the system including records viewed (and by whom) is able to be fully audited. These records do not contain any clinical information, this is all recorded in the residents health records.

The system in use at CNR was referred to as the COVID-19 compliance database (C19C) and this assisted the NT Government to manage the compliance and response to COVID-19 in the Northern Territory. This meant the records were accessed and included information pertinent to:

- Border control teams
- Quarantine management
- Compliance checks (for anyone in alternative quarantine/isolation arrangements)
- The Territory check-in app
- Contact tracing
- COVID-19 safety plans
- COVID-19 call logs (COVID-19 Hotline)
- General reporting
- (Information about the wider NT COVID-19 response including an overview of these teams is provided in Section 6: NT Pandemic Response

From a quarantine perspective, the system needs to record resident arrival, duration of quarantine stay and exit, room management, maintenance, catering and cleaning across the site. The resident record keeping commenced (when possible) at a pre-arrival stage with the Tele Wellbeing team so information was populated on the site prior to their arrival. This information aimed to confirm resident demographics, travel status (single, group, family), dietary requirements, mobility and medical assessments to link residents with medical services if required. The system was also used to communicate with residents via group SMS, email or phone. A full overview of the resident management system including examples of the pre-arrival questionnaire is presented in *Section 4: Resident Care*.

Example of how Tele Wellbeing may conduct resident contact and what will be recorded in the RMITS:

Welcome Call within 24 hours after the resident has arrived.

The purpose of this is to review and verify information of reported medical, mobility, allergy, dietary, room equipment, as well as ask if residents have accessed the Quarantine Resident Information booklet. The Tele Wellbeing Team will contact residents daily during their quarantine period unless the resident has identified they prefer the daily call do not occur.

The Tele Wellbeing Team will update the resident's RMITS profile to demonstrate the call was made and any additional information of importance such as a request for a room move, or assistance with using the click-and-collect services.

Check-In Call on Day 7 after the resident has arrived or made at regular intervals if the resident requests. These calls are to inquire about the resident's wellbeing, answer questions they may have, reassure them that they can access mental health services, and receive medical and allied health attention if they are unwell.

The Tele Wellbeing Team will update the resident's RMITS profile to demonstrate the call was made and any additional information of importance such as escalating important information to the Pod Nursing Manager/Team Leader.

1.5.4 Communication with residents

The COVID-19 pandemic led to an infodemic making it difficult for people to identify what was correct and true information. With varying levels of health literacy, it is vital that the quarantine facility ensures it provides clear, concise and accurate information delivered in a method that is accessible. Ensuring there is equity in access to communication for residents can be problematic due to barriers such as language and access to technology.

Strategies to ensure clear accessible communication for residents need to include:

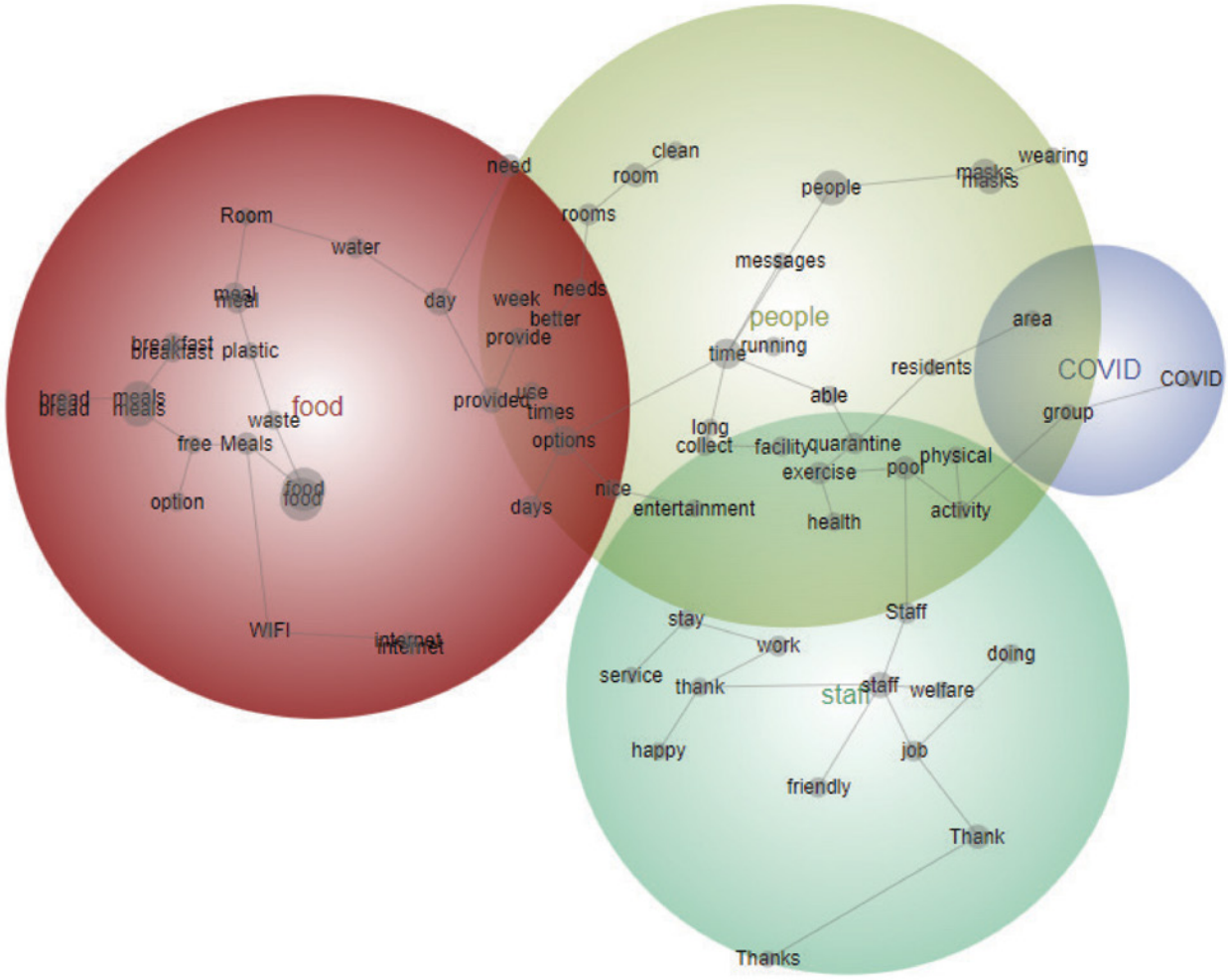
- A number of options to communicate with staff onsite (SMS, Tele Wellbeing, face to face, email, phone).
- Reliable sources of site-specific information (site website and internal hardcopy of the resident handbook).
- Online site community space (Facebook page).
- Access to Australian SIM cards if needed or loan phones.
- Daily face-to-face contact with site staff (daily health and wellbeing checks).
- Tele Wellbeing or Tele Health service (facilitation of important resident messages, point to link with services and health and wellbeing checks).
- Tele Wellbeing staff trained in basic terminology for reporting and documentation

The CNR operated with a resident-centred quarantine care model which acknowledges those factors residents have identified as being most important to their health and wellbeing and develops the quarantine structure to enable this.

Although quarantine aligns with a public health approach of keeping communities safe from disease transmission there is a duty of care to the resident who is quarantined. The resident-centred quarantine care model acknowledges the resident is central to service provision and prioritises their health and wellbeing above legislation.

1.5.5 Research into resident priorities at CNR, Howard Springs Quarantine Centre

The facility needs to organise the communication strategies to align with the residents needs predicting what their main concerns will be. Research into the resident experience at CNR via a review of the resident surveys (conducted August 2020 to May 2021) sought to gauge the efficiency of the site from the perspective of the residents. The main focus areas of the survey questions were based on sleep, meals, physical activity options, entertainment options, medical area, communication of information and residents perceived safety from COVID-19 whilst in quarantine and isolation. The main issues which were reported at this time were clearly food, people, staff and COVID-19. Figure 2 provides a concept map of how these were interrelated.



Section 1: Figure 10: Thematic analysis of resident surveys responses from Howard Springs Quarantine Facility (HSQF) (conducted August 2020 to May 2021) presenting main themes of open feedback as food, people, COVID-19 and staff.

Overall, the main concerns for residents were in regards to meals (43% people were very dissatisfied to neither satisfied or dissatisfied) and with entertainment options (41% people were very dissatisfied to neither satisfied or dissatisfied). All other comments on sleep, physical activity, medical care, contracting COVID-19 and remaining informed were very satisfactory. There is evidence with the cohort that they felt COVID-19 safe whilst in quarantine at the facility. This is significant given the rest of Australia were in the midst of the COVID-19 pandemic particularly Victoria who had 289 cases of hospitalised people and over 8000 cases during the time frame this survey was conducted.[24]

Section 1 Table 9: Summary of written feedback provided by residents in the resident survey conducted at Howard Springs Quarantine Facility (August 2020 to May 2021).	
Feedback focus area	**Core feedback themes (basic)**
TV/WIFI	WIFI and/or TV Systems not working Slow WIFI
Food	Quality of food Food choices Distribution of food to residents
Room matters	Cleanliness of room Room supplies
Travel Arrangements	Communication of travel related information Welfare and support
Staff	Compliments for staff
Other	Activities and exercise in quarantine Children in quarantine Supplies of good and services COVID disease transmission concerns Negative aspects of quarantine

The second part of reviewing resident communication with involved thematic analysis of resident emails to the facility and this included emails from residents, emails in direct response to a resident or emails from CNR HSQF staff in response to a resident need/request. The topical focus of emails varied across complaints, requests for goods and services and food related requests, Health workforce and health service provision by the Specialist Team, Medical Officers and Pod staff, transport request, financial assistance and miscellaneous such as flight confirmations, change of room requests.

Section 1: Table 10: Results of thematic analysis of CNR HSQF resident emails which includes emails from residents, in direct response to a resident or from CNR HSQF staff in response to a resident need.		
Core theme	**Descriptive theme**	**Example**
Health	Personal health	Requests for health services Physiotherapy, social work, mental health and medical referrals Medication access
Service	Service Provision	Welcome pack, food & water
	Family requests	Child safety regard to stairs, blind cords (choking hazards) and boiling water (kettles)
Processes	Quarantine intake process	Access to food, water and toilets
	Quarantine process issues	Unable to change rooms Unable to leave balcony for exercise Mandatory mask wearing when out of room Quarantine fees Fines for non-compliance
Diet and meals	Meals and food delivery	Meal changes requests Religious meal requirements
Information	Transport on discharge	Assistance requests for information on connecting flights & taxis to airports Financial assistance for travel
	Confusion on exit dates	Changes in CHO Directions whilst in quarantine Notification of being COVID positive or close contact extending stay
Infrastructure	Room infrastructure	Shower not draining Lack of linen Room not clean Noisy appliances
Safety	Personal safety	Non-compliance of neighbours and other residents Loss of privacy
	Infection prevention and control	Access to PPE and COVID swab results Fear of disease transmission

Communication	Staff communication channels	Inactive SIM cards a blocker to accessing goods and services Costs of calls Reliance on phone for contacting staff Concern of being missed or overlooked in facility Incorrect name used when staff conducting health and welfare checks
	Interpreter	Interpreter requests Communication and cultural barriers
Entertainment	WIFI connection	Slow or no internet Reliance on internet to work whilst onsite
	External service provision	Delays in receiving click and collect orders

1.5.6 Resident communication focus areas

From review of these resident survey and data analysis results, there are a number of core points to focus communication for and with residents.

These have been summarised as:

- Provision of a front-facing webpage which provides an overview of the service, including images of rooms and the resident quarantine environment.
- The site needs to have access to interpreters and pre-empt language requirements where possible such as with repatriation residents (a full overview of Quarantine interpreter services is presented in *Section 5 Health wellbeing and clinical care*). This includes having resident information available in different languages.
- Core numbers such as medical emergency calls, mental health and wellbeing, Tele Wellbeing and general site enquiries and concern should be presented on the first page of the resident handbook. An A4 laminated poster with emergency contact details and information was additionally displayed on the back of every resident room door.
- A resident complaint process needs to be established.
- The access pathway (referral system) to health services, Speciality Team and Medical Officers needs to be clear to ensure residents are aware of the services if they are required.
- Addition of a TV channel which presents physical exercise suitable for the quarantine environment (can be done in their room).
- Even though external factors such as CHO Directions and disease trends and transmission updates are not within the facilities control, there is an expectation that the site will be able to provide residents with this information or links to the information.
- Clear communication and information for residents in regards to isolation requirements is needed, especially in relation to the number of quarantine days required and how this might change if they are positive.
- Provision of the resident handbook (Welcome Pack) should cover all resident behaviour expectations presented and include important phone numbers, site-specific information which may impact their wellbeing (such as weather and hydration requirements), information about the disease of concern (transmission, standard precautions), quarantine requirements (for standard quarantine, close contacts, and disease positive people), fees, the health workforce they will interact with, viral screening process, exit day process and links to other information sources (such as the site Facebook page, the government information page).

Additional aspects which directly relate to resident communication and support are covered in the following sections of this toolbox.

> ***Section 3: Health workforce***- overview of the Tele Wellbeing role and model, the Pod Teams resident management and communicating with Pod Teams.
>
> ***Section 4: Resident care***- full presentation of the resident quarantine journey, including an example of the resident information booklet.
>
> ***Section 5: Health, wellbeing & clinical care***: referral process for residents.

1.5.7 Managing resident feedback

Resident feedback management requires a standard operation of practice to provide an approach and framework to ensure all resident/consumer feedback is promptly acknowledged, investigated, reported and recorded in a manner that is fair and equitable to all parties, without prejudice or assumption, with the emphasis on providing just and objective outcomes, and improving the site services where required. This ensures all consumers providing feedback are treated with respect, sensitivity and confidentiality, and to prevent exposure to discrimination or adverse consequences as a result of providing feedback.

Expected outcomes for resident feedback

- There is timely and effective management of consumer complaints.
- There is a standardised approach to consumer complaints handling across CNR.
- Staff are aware of their responsibilities in consumer complaint handling and are empowered to manage patient complaints.
- There is identification of emerging patterns of practice as well as the highlighting of system and process deficiencies, with appropriate links to service/systems improvement processes.
- Trust and support is restored for the service provider.

Consumer feedback can be in the form of a comment, a suggestion, an enquiry, a compliment or a complaint. All feedback needs to be assessed for consideration of entering the details in the Risk Management System (RMS).

Section 1: Table 11: Defining the different resident feedback modes and requirements for entry into the Risk Management System.	
Comment	A comment is something that someone says or writes that expresses their opinion. It is what we would consider general feedback. Something like 'the soup was cold' or 'I like that I have my own laundry facility' are simply comments and should be passed onto the relevant areas for review (and action if necessary) but do not require investigation and response in the way a complaint would. Comments do not need to be registered in Risk Management System (RMS).
Suggestion	A suggestion is an idea or plan put forward for consideration. Suggestions do not need to be registered in RMS but should be forwarded to the relevant areas for consideration.
Enquiry	An enquiry is simply the act of asking for information. Enquiries do not need to be registered in the RMS but should be forwarded to the appropriate area for response.
Compliment	A compliment is an expression of praise or admiration. Compliments should be recorded on the RMS by whichever staff member receives the compliment and ensure the consumer's wishes are followed as far as possible in regard to the wording of the compliment and passing on the compliment to relevant staff. As much as possible, an acknowledgement of receipt should be provided. This can be provided verbally or in writing.
Complaint	A complaint is an expression of dissatisfaction, which may be in writing or verbal in relation to the quality or delivery of services, processes/procedures or conduct. The main reasons people complain are to be heard and to ensure what happened to them won't happen to someone else. Taking the time to actively listen to their concerns, and demonstrate a genuine interest is key to resolving a complaint. The resident may not be aware of the limitations of the service and their expectations might be greater than what can be offered. It is important to be reminded that consumers may be unfamiliar with the quarantine environment and operations, and may be unwell and/or feeling stressed at the time of the complaint. This makes them more vulnerable and possibly more complex to interact with due to anxiety, pain or fatigue. Taking a step back and looking at the situation from the resident's perspective often helps understanding the situation. Another key aspect of complaint management is to address concerns or issues as soon as they arise. This avoids frustration building on the part of the consumer and demonstrates that we provide a caring and responsive service. Escalation of complaints to management can thus be avoided. All complaints should be registered in the RMS. Most complaints are due to communication issues. Problems include not getting enough information – either because it is not provided in an understandable way, or is not provided at all; and not being given correct care and attention.

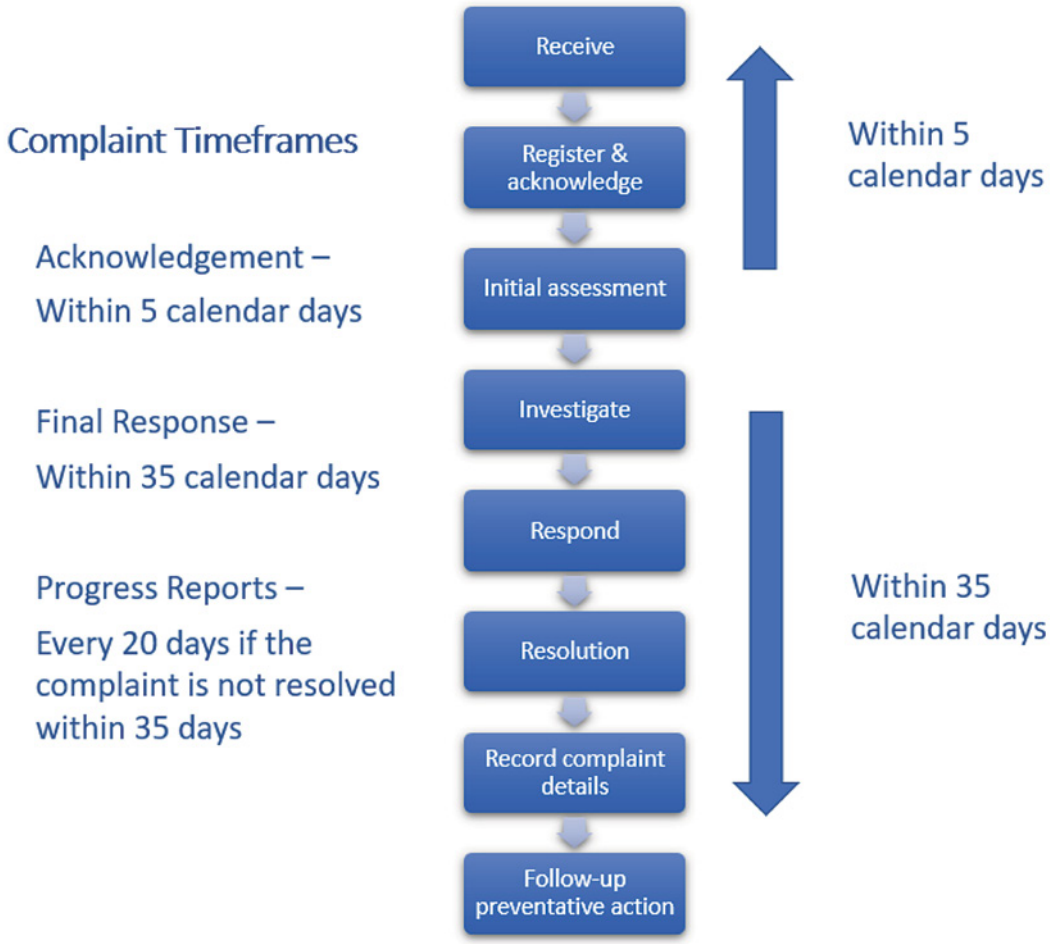
1.5.8 Managing resident complaints

Formal complaints can be made by a resident/consumer, in writing, directly to the service provider or through another agency (such as via a contracting agency or straight to the Department of Health). All complaints should be directed to the Executive Team for review with consideration for the need to develop a unit for complaint management (depending on the number of residents aligned with the volume of complaints).

Complaints should be escalated if they:

- Remain unresolved.
- Involve serious consequences.
- Involve complex issues, a number of different staff or different agencies.
- Need action that is beyond the point of responsibility of the staff at the point of service.
- Require reporting to an external agency or legislative authority.
- A conflict of interest has been identified.

A realistic timeframe needs to be established to acknowledge and respond to the complaint which facilitates a fair and thorough investigative process.



Section 1: Figure 11: Quarantine facility resident timeline for complaint management

Section 1: Table 12: Stages in managing a resident complaint.	
Initial handling	The complaint is delegated to the appropriate action officer. If the complaint relates to more than one service, respective officers will work collaboratively to assess and manage the complaint. The complaint is registered in the RMS and coded appropriately. Managers are responsible for ensuring that the RMS entries are complete, accurate and that the severity rating allocated is appropriate.
Acknowledgement	A verbal or written acknowledgement of receipt of the complaint is provided to the complainant (resident) within five days of the complaint being lodged. The following information should be provided with the acknowledgement: • An explanation of the complaints process • Contact details for the person handling the complaint • Expected timeframes and what might be requested from the complainant.
Initial assessment	The purpose of the assessment process is to: • Determine the severity of the complaint • Identify the parties involved – if individual staff are identified they must be advised of the complaint. • The severity of the complaint is determined using the Complaint Severity Rating and helps determine: • A plan of investigation is devised.
Investigation	A methodical and thorough approach is taken to the complaint investigation. Each investigation is different and depends on the nature of the complaint. The following elements are, however, common to each investigation: • Relevant people are asked to provide information relevant to the complaint. • All those involved in the investigation process are afforded natural justice and fairness. • The complaint is treated as confidential and the privacy of the complainant is respected.
Progress updates	If, at 35 calendar days from the date of receipt, the investigation is still ongoing, the complainant should be contacted by phone or in writing and provided with: • An apology for the delay • A full explanation of the delay • Details of results of the investigation to date and if possible the date by which a full response can be expected. Should a complaint response be delayed further, written updates will be sent every 20 days until the final response is sent, unless otherwise indicated (It may be the case, for example, that a letter would incite aggression from the complainant, would be seen as harassing the complainant, or it is not appropriate as litigation is involved).

Response	The person managing the complaint makes findings and recommendations for action. Actions to resolve a complaint should be based on the evidence, address any system, process or staff issues, and are informed by the principles of public interest and good governance. Options for appropriate action could include: • Offering an apology • Waiving fees (appropriate delegation by CE or Minister may be required) • Develop or amend policy/procedure/training education for staff/public • Modification of the environment • Requesting a formal review • Ongoing monitoring of an issue • Mediation • No action recommended. The outcome and recommendations should be clearly communicated to the complainant, staff and management. Actions to prevent a similar complaint arising should be integrated into quality improvement systems through appropriate implementation and subsequent review of effectiveness. If the complaint cannot be resolved, the consumer should be provided with information about independent external review bodies and the RMS entry should be updated to reflect this.

1.5.9 Communication tools

Across the quarantine and isolation facility, a number of different communication tools are likely to be needed. This might include the use of social media sites to host a social community that links residents into a social network as well as providing important information about the site. In this section, the following tools which were utilised at CNR will be presented with practical considerations and guides: mobile phones, iPads, two way radios and open access/social media sites.

A copy of the resident handbook provided to residents at CNR has been provided in *Section 4: Resident Care* along with other resources focussed on activities to do whilst in quarantine and keeping the mind and body health in quarantine (includes exercise examples and directions).

With any communication occurring in the resident zones using two-way radios or mobile phones there are important infection, prevention and control considerations.

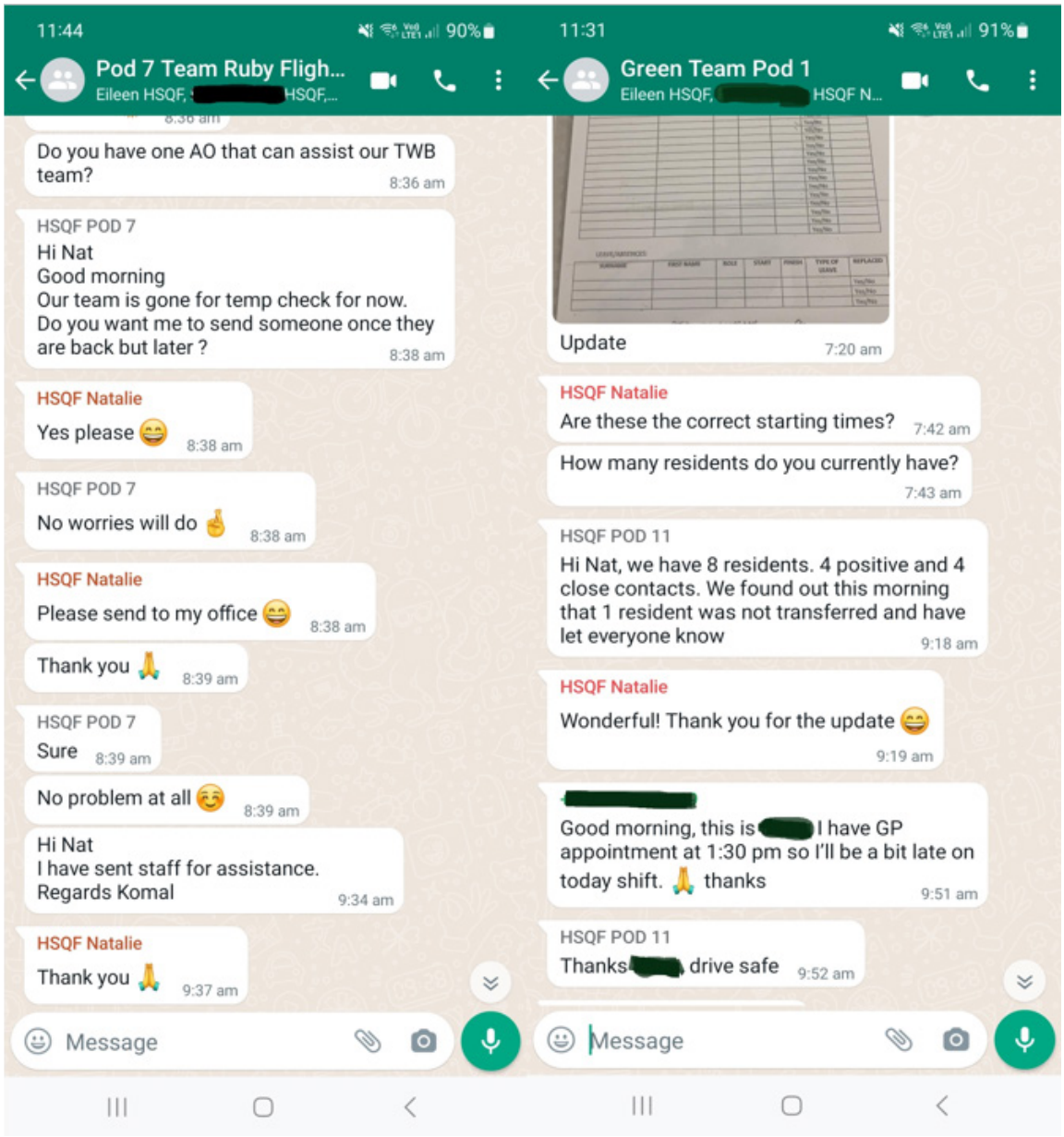
These include:

- Mobile phones should have the site emergency and core numbers pre-set.
- Phone and two-way radios are not to be held against or close to the face or the ear.
- Phone and two-way radios are not to be put in pockets when in the zone, they are to remain in staff hands to ensure there is no IPC breach/contamination transferred to staff.
- Staff need to be aware of where conversations are taking place to ensure confidentiality is maintained (noting other residents may be listening into conversations).
- Any device taken into the zone needs to be cleaned in accordance with IPC standards on exiting the zone.

1.5.9.1 Mobile phones & iPads

The Pod Teams were issued a mobile phone (along with landline numbers) and iPads which could be taken into the zone area. This allowed images to be taken of any paper-based documents (noting paper/cardboard was not to be taken out of the zone as it could not be safely cleaned in accordance with IPC requirements). Records from the images could then be transcribed or transferred and saved (as an image) to the RMITS or resident health records. The mobile phones were pre-set with emergency and core numbers. There are important IPC requirements for taking phones into the orange and red zones which included holding the phone at all times (they were not to be put in pockets as reaching for these once in the zone is considered a breach of IPC).

A Whats App group was created for each Pod Team and was used for quick relaying of messages between team members. This included sending updates of sign-in sheets to the Pod Managers and confirming important duties had been carried out, such as exiting residents from the site. This also allowed for urgent updates of information teams should know immediately such as a snake sighting near their zone or a storm warning which required all staff to exit the zone.



1.5.9.2 Open access community page - Facebook site

Using social media as a contact point for residents to ask questions about the site and share their experiences is likely to happen whether it is facilitated by the quarantine facility or commenced by a group of residents. It is recommended the site establishes an open-access community page for the quarantine facility which will then allow comment review and moderation (if required) and ensures the accuracy of information being posted and opportunity to address questions or concerns by residents.

A number of different Facebook sites were established by residents at CNR, on review these provided great insight into what the residents wanted to know before they arrived and portrayed their views on their quarantine experience. These posts can provide insight to what the residents priorities and concerns are.

On review of the Facebook posts across two sites commenced by residents the following information was attained which can then be addressed in SMS messages to all residents by Tele Wellbeing to alleviate concerns or a responding post can be added to the Facebook site.

- Commencement of Facebook support group for Darwin residents who tested COVID positive as community felt there was a lack of advice available online on managing symptoms.
- Confusion over different CHO Directions across different states and territories in regard to quarantine and vaccination status.
- Access to COVID-19 swabs results.
- Questions about ability to contact Doctor onsite for scripts.
- Queries over whether a Quarantine Assistance SMS was actually spam or a legitimate text message (it wasn't).
- Request to residents from a planned repatriation resident for a description of the airport and quarantine process.
- Sharing of ideas on how to entertain children and queries regarding children's mattresses and other essentials.
- Accolades for meals and questions regarding special diet requirements.
- Confirmation on how much baggage is permitted and other flight information.
- Types of electrical equipment allowed and items banned onsite -alcohol, electrical food equipment, balls and kids' pools.
- Questions on obtaining quarantine completion certificates and quarantine bills.
- Advice sought as to what they should bring into quarantine: cutlery as bamboo spoons break and taste funny; scissors and screwdrivers; snacks; coffee and plunger; power board; water play equipment for kids; photos etc.

1.5.9.3 Resident loan phones

As a safety measure, the site should have a number of loan phones available in cases where residents have no other form of contact. These phones require a new SIM card for each user to ensure privacy and confidentiality between users. The phones are provided for the duration of the resident quarantine stay and collected the night before the resident is due to exit.

Additionally, a supply of SIM cards was kept for distribution to repatriation residents if required noting they often did not have a SIM card that was compatible with Australian systems or oversea SIMs charged excessive fees.

1.5.9.4 Radio Use (two-way radios)

The use of radios onsite is an effective method to manage aspects of the resident journey such as the resident arrival process and health and wellbeing checks. Radios were used consistently across the site at CNR between Pod Teams entering resident zones and to manage larger-scale processes. For security and to maintain confidentiality, two-way radios should be digitally programmed to minimise external access to the used channel.

- Two way radio communication was an efficient and secure way to communicate between team members in the zone and their Team leader located back in the Pod area. During daily health checks and routine zone walk through, this enabled instant communication to follow up on resident questions or concerns.
- During resident arrivals and departures, the two-way radios enabled a team to effectively relay progress of resident moving into their rooms between Team Leaders.

There are a number of basic radio etiquette rules when using radios and this acknowledges the international radio language is English. It is recommended the user decides what they are going say and to whom it is meant for making the conversations as concise, precise, and clear as possible. Avoid long and complicated sentences and if the message is long, divide it into separate shorter messages. It is always best to speak in short simple phrases on the radio and toss the conversion back and forth with the word “OVER.”. Don’t speak immediately when you press the PTT (push to talk refer to the image of the two-way radio for context). Refer to Appendices A for a poster on using the two-way radio as well as the International Phonetic Alphabet used when communicating with radios.

When using a two-way radio, you cannot speak and listen at the same time, as you can with a phone, so you do not interrupt if you hear other people talking and leave a second or two between “hand-offs” to give others a chance to break in.

Golden Rules of Radio Communication

Clarity: Your voice should be clear. Speak a little slower than normal. Speak in a normal tone, do not shout.

Simplicity: Keep your message simple enough for intended listeners to understand.

Brevity: Be precise and to the point.

Security: Do not transmit confidential information on a radio. Remember, frequencies are shared, you do not have exclusive use of the frequency. Go to Mobile Phone for confidential information.

Section 1: Figure 12: Basic instructions for radio use

Section 1: Table 13: Guide to using the radio in quarantine, common phrases and accepted language.	
Word/Phrase	**Meaning**
This is	When you call identify yourself by using your allocated call sign. You would use the call sign of who you want to speak to first, followed by your call sign. For example Orange Zone TL THIS IS Red Team Leader
Over	Transmission finished. I have finished speaking and it is your turn to reply
Out	Communication is over and the channel is available for others
Radio Check	This is to check others can hear you, if you hear someone say Radio Check they expect you to reply- such as loud and clear or ……
OK/Roger	This shows you have received and understood a message delivered over the radio Sometimes people reply by saying copy that which means the same
Message	This means a person has a message for you (or you have a message)- and are waiting for confirmation the receiver is ready to receive that message
Send	I am ready to receive your message
More to Follow	The message is not complete but checking to see you have received and understood everything said so far
Say again	Re-transmit your message - Used to ask for a repeat of information. Example Say again resident room number
Acknowledge	Used to confirm that the receiver has understood the message being delivered. If you were sent a message to show you have received and understood this you would reply back to acknowledge Roger or OK
Stand-by	Transmission has been acknowledged, but I am unable to respond now
I spell	Is a request to repeat the word and then spell it out. This might be used to confirm room numbers.
Affirmative	Yes
Negative	No
OPS	Operations
Zone Coordinator	Zone Coordinator is the duty Operations Officer in the zone supporting resident intake
Team Leader	Person in the Team Leaders role in the pod
Security gatehouse	Front gatehouse security

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Content Acknowledgement

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Appendices A

Areas and activities which will require the allocation of adequate funding for quarantine service delivery.

- Provision, capacity and maintenance of ICT systems and assets.
- Provision, capacity and maintenance of broadband services, such as wifi, and telephones.
- Provision of essential services (water and electricity).
- Provision of linen.
- Provision of consumables (such as toiletries).
- Provision of small electrical appliances in rooms- such as TV and kettles.
- Provision of toys and recreational activities for children.
- Provision of additional furniture for families with infant children, such as cots and linens and prams.
- Provision of consumables for families with infants such as nappies and formula.
- Provision of disability and mobility supports.
- 24 hour security of the site- site access control and patrolling.
- Catering and food provision, including the delivery of catering to accommodation facilities.
- Provision of personal hygiene facilities and consumables.
- Waste management services (standard and biohazard/medical).
- Cleaning of rooms and common areas with adherence to infection control guidelines.
- Provision of laundry services.
- Facility management including:
  - Building and room maintenance
  - Ground maintenance
- Provision of fire services.
- Provision of transport services while an individual is in quarantine, this could include transport to and from the facility, internal tot the facility, or for travel outside the facility, such as for medical purposes (including for interstate medical transfer).
- Staff recruitment, induction and training programs, including infection control training and a nationwide recruitment campaign to supplement local health workforce.
- Mental health services- for quarantine residents and staff.
- Hospital services (access to).
- Health services including but not limited to:
  - Pathology
  - Primary care services
  - Alcohol and drug services
  - Dental services
  - Maternity services
  - Occupational therapy/disability supports.
- Facilitating access to welfare services and support.

Other

- Administrative component including but not limited to invoicing, data reporting and compliance, operational supports and administration.

Appendices B

This table presents an example of the WHS checklist used for inspections of site infrastructure, this has been based on the WHS inspection of an quarantine site administration building.

Section 1: Table 2: Example of a WHS checklist for inspection of site infrastructure.	
Building location: Administration building	
Inspected by:	**Inspection date**:
Instructions Use this form to conduct an inspection of the work area (items and structures) as required. If an item/structure doesn't exist in the area, put a tick in the N/A box. For example, if there are no stairs in the workplace structure, put a tick in the N/A box. Tick the yes or no box when that item/structure has been sighted. Yes means the item/structure was in the condition listed, for example "free of clutter", No means the item/structure didn't meet an acceptable standard. For example "chair was missing 1 wheel". Use the comments box to make any notes. For example "WHS Policy is being developed". Photos and other notes can be attached to this document if needed.	

1	Floors Passageways and Stairs	Yes	No	N/A	Comments / Recommendation
1.1	Stairs, floors and walkways, or their coverings, should have an even and unbroken slip resistant surface	YES			
1.2	Walkways free from clutter. The surface should be free from holes, indentations, projections or other obstructions likely to cause a person to trip or stumble	YES			
1.3	All requirements of state OHS Regulations and the Australian Standard 1657-1992 are observed such as use of guard railings and toe boards	YES			
1.4	Walkways demarcated as required, with sufficient width for all normal movement (minimum width 760mm)	YES			
1.5	Well light and fire/emergency exit clearly marked			N/A	No stair well.
1.7	No doorways blocked	YES			

2	Entry and Exits	Yes	No	N/A	Comments / Recommendation
2.1	All entry points to buildings and fenced areas kept clear of stored goods, rubbish, vehicles etc.		NO		Buggies often blocking doorways around operations.
2.2	Fire doors clear of stored goods and rubbish for easy access, egress		NO		Bins and boxes in admin area.
2.3	Fire doors self close when released, latch operates freely, no locks or fastenings preventing escape	YES			
2.4	Exits and exits signs marked and illuminated	YES			

3	Fire Safety Equipment	Yes	No	N/A	Comments / Recommendation
3.1	Extinguishers In date and tagged. Mounted on wall securely between 1000mm and 1200mm from floor. Clear of obstructions. Correct media type for area. Sign immediately above.	YES			SEP 21 All due now. Fire extinguisher in admin area always cluttered.
3.2	Fire Blankets Mounted to wall. Easily accessible. Not behind range or hot areas.		NO		Expired.
3.3	Fire Hoses In date and checked. Easily accessible. In designated Fire Hose Cupboard or nook. Nothing else stored in cupboard or nook. Clearly signed.		NO		Expired.

4	Ladders	Yes	No	N/A	Comments / Recommendation
4.1	Ladders maintained in good condition			N/A	No ladders.
4.2	No damaged rungs or sides			N/A	No ladders.
4.3	Ladders stored safely			N/A	No ladders.
4.4	Ladders provision, use and construction in accordance with Standards			N/A	No ladders.
4.5	Ladders secured at both top and bottom points of rest (where possible) when in use			N/A	No ladders.

5	Platforms	Yes	No	N/A	Comments / Recommendation
5.1	Working platforms have a slip-resilient surface, are level and free from trip hazards			N/A	No platforms.
5.2	Platforms above 1.8 metres from the floor level have toeboards of at least 150mm fixed to the floor of platforms or posts.			N/A	No platforms.
5.3	Guardrails of not less than 900mm or more than 1100mm fixed securely to the platform are in place. A midrail between the top guardrail and the toeboard in place			N/A	No platforms.
5.4	Safe access to and egress from the working platform in the form of stairways, access ways or ladders			N/A	No platforms.

6	Roadways and ground conditions	Yes	No	N/A	Comments / Recommendation
6.1	Road surfaces in good condition	YES			
6.2	Standard signs and road markings used and are clear and un-faded	YES			
6.3	Rubbish not accumulated in grounds	YES			
6.4	Lawns, gardens (where applicable) in good condition	YES			
6.5	Outside storage areas kept neat	YES			Immediate area around perimeter of building is neat.

7	Statutory Requirements	Yes	No	N/A	Comments / Recommendation
7.1	Injury management policy/procedure displayed	YES			Available electronically and on noticeboards.
7.2	WHS policy displayed	YES			Available electronically and on noticeboards.
7.3	Summary of Workers Compensation Act displayed	YES			Available electronically and on noticeboards.
7.4	WHS Act and regulations available to employees	YES			Available electronically and on noticeboards.
7.5	WHS/SOPs available to employees	YES			Available electronically and on noticeboards.

8	Ventilation	Yes	No	N/A	Comments / Recommendation
8.1	Ventilation adequate for removal of fumes, dusts, excessive heat	YES			
8.2	Local exhaust or forced ventilation used when required e.g. welding			N/A	

9	Lighting / Noise / Indoor Air Quality	Yes	No	N/A	Comments / Recommendation
9.1	Light - Sufficient lighting for performance of tasks. Reflected light/glare not making it difficult to see. Employees can see clearly and safely	YES			
9.2	Noise - No difficulty in hearing within a 1 metre distance in the area. No distracting or disruptive noises in the area	YES			
9.3	Air Quality - Employees do not suffer from dry irritating eyes at the end of the day. Employees do not find the temperature cold, hot or fluctuating	YES			

10	Ergonomics	Yes	No	N/A	Comments / Recommendation
10.1	Operational controls are easy to reach			N/A	
10.2	Chair and desk height are adjustable	YES			
10.3	Rest breaks or exercises encouraged	YES			

11	Stacking and Storage	Yes	No	N/A	Comments / Recommendation
11.1	Safe working load ratings on racks		NO		No ratings on racks in operations store room. Police lockers in hallway not secured.
11.2	Racking conditions - structure undamaged, guarding in place	YES			
11.3	Rubbish and obstructions cleared from racks		NO		First area inside operations room (PPE area) is a mess. PPE – wheelchairs – trollies – clutter.
11.4	Heavy, awkward, regularly used items/ materials stored between knee and shoulder height wherever possible	YES			
11.5	Materials/equipment not protruding from racks		NO		First area inside operations room.
11.6	Pallets stored horizontally			N/A	
11.7	Tools equipment stored correctly	YES			

12	Chemicals / Dangerous Goods	Yes	No	N/A	Comments / Recommendation
12.1	Chemical register in place		NO		
12.2	SDS for chemicals in the area/chemicals properly labeled		NO		Chemicals in cleaner's area, chemicals stored in operations room.
12.3	Employees trained in use and storage of chemicals		NO		
12.4	Chemical storage appropriate		NO		Bulk chemicals stored in numerous areas.
12.5	Spillage controls in place (kit)		NO		Spill kit at medical centre, however, most people are not aware.
12.6	Spillage procedures in place		NO		

13	Compressed Gases	Yes	No	N/A	Comments / Recommendation
13.1	Flammable gases separated from non-flammable gases by vapor tight wall or kept a minimum 3 metres apart			N/A	
13.2	Flammable gases not stored within 3 metres of general purpose outlets (electrical) or within 15 metres of welding operations			N/A	
13.3	Cylinders stored in vertical position and fall prevention in place (chains)			N/A	

14	Personal Protective Equipment	Yes	No	N/A	Comments / Recommendation
14.1	Appropriate PPE available to employees	YES			
14.2	Employees trained in the use and storage of PPE	YES			
14.3	Employees wearing appropriate clothing and PPE Eye protection, hearing protection	YES			

15	HOUSEKEEPING	Yes	No	N/A	Comments / Recommendation
15.1	No leads, hoses left on floor unused	YES			
15.2	No rubbish left on floors, garbage bins secured	YES			
15.3	Spillages attended to immediately	YES			
15.4	Work benches/tops clean and tidy	YES			

16	Material Handling Equipment	Yes	No	N/A	Comments / Recommendation
16.1	Forklifts - daily checks conducted, drivers hold certificates or undergoing training (log books), drivers complying with safe driving rules			N/A	
16.2	Pallet jacks in good condition			N/A	

17	Lifting Gear and Equipment	Yes	No	N/A	Comments / Recommendation
17.1	Records kept concerning tests, maintenance, and inspection of equipment			N/A	
17.2	Safe working loads clearly visible on lifting equipment			N/A	
17.3	Slings and hooks in good condition			N/A	
17.4	Hooks not deformed, wire ropes not burred			N/A	
17.5	Synthetic/flat webbing slings not torn or exposed to oil			N/A	
17.6	Hoist motor brakes and limit stops operational			N/A	
17.7	Cable ropes in good repair			N/A	

18	Electrics	Yes	No	N/A	Comments / Recommendation
18.1	All leads and power tools inspected and tagged		NO		Some computer monitors not test and tagged.
18.2	All leads, plugs, switches in good condition	YES			
18.3	Electrical installations outlets, switches, intact and operable	YES			
18.5	Use of power boards or extension cords minimised	YES			
18.6	No possible trip hazards from cables/cords	YES			

19	Fire Protection and Explosion	Yes	No	N/A	Comments / Recommendation
19.1	Fire emergency alarm system operational and on test schedule	YES			
19.2	Fire extinguishers provided and mounted on wall between 1000mm and 1200mm from floor	YES			As per part 3.
19.3	Correct signs in place for the type of extinguisher and type of fire	YES			
19.4	Fire extinguishers serviced every 6 months and date stamped on service tag.	YES			Due now.
19.5	Fire extinguishers seals intact	YES			
19.6	Fire extinguishers in readily accessible position and not obstructed	YES			Comments part 3.
19.7	Sprinkler heads have 1 metre clearance from materials and furnishings			N/A	
19.8	Sprinkler heads are clean and free from paint			N/A	
19.9	Smoke detectors in place and checked on a regular basis	YES			

20	First Aid	Yes	No	N/A	Comments / Recommendation
20.1	First aid kit in place, stocked (as per checklist) and in clean condition	YES			17 Nov 2021
20.2	Appropriately trained first aiders in place	YES			
20.3	Names of first aiders posted		NO		
20.4	Instructions for first aid procedures in place and available to employees		NO		

21	Office Layout	Yes	No	N/A	Comments / Recommendation
21.1	Sufficient space for the tasks to be carried out	YES			
21.2	Sufficient space for walkways (750mm minimum)	YES			
21.3	Personal space allocated at approximately 6.25 square metres (workstation)	YES			
21.4	General office area - personal space of 10 square metres per person	YES			
21.5	Safe egress to emergency exits	YES			
21.6	Emergency exits clearly visible from all locations in the area	YES			

22	Workstations	Yes	No	N/A	Comments / Recommendation
22.1	Sufficient space and access to equipment at workstation	YES			
22.2	Workstation and equipment set up to reduce awkward postures	YES			
22.3	Chairs adjustable and stable	YES			
22.4	Footrests/document holders available	YES			
22.5	Employee's trained to adjust workstations and chairs	YES			
22.6	Employee's have access to AS.3590-1990 Screen based workstations	YES			

23	VDUs (Monitors & Screens)	Yes	No	N/A	Comments / Recommendation
23.1	Top of VDU (monitor) level with employee's horizontal eye level	YES			
23.2	VDU approximately one arms length from employee (seated)	YES			
23.3	Keyboard located directly in front of employee	YES			
23.4	VDU capable of being adjusted for height and screen brightness	YES			
23.5	Lap top computer stands available	YES			

24	Storage	Yes	No	N/A	Comments / Recommendation
24.1	Sufficient general storage for the area	YES			
24.2	Sufficient general storage for each workstation	YES			
24.3	Filing cabinets stable and not top heavy	YES			
24.4	Filing cabinets not overloaded	YES			
24.5	Sharp implements - pen knifes, blades stored safely				
24.6	Items stored above shoulder height		NO		Operations room.
24.7	Suitable steps or ladders available		NO		Operations room.

25	Office Equipment	Yes	No	N/A	Comments / Recommendation
25.1	Equipment such as photocopiers in good working order	YES			
25.2	Photocopier in close proximity to workstations	YES			
25.3	Self contained toner cartridges for machines supplied in sealed state	YES			
25.4	Safety procedures for machines in place	YES			
25.5	Hand guillotines properly guarded	YES			

26	Emergency Procedures	Yes	No	N/A	Comments / Recommendation
26.1	Site plan showing location of exits and assembly points	YES			
26.2	Emergency evacuation plans in place and available to employee's	YES			
26.3	Fire drills carried out and recorded	YES			
26.4	Trained fire wardens for the area	YES			
26.5	Hazardous chemicals are stored in appropriate storage cabinets	YES			

Appendices C

The Centre for National Resilience strategy to reduce the risk of COVID-19 at the Centre was directed at staff to ensure safe practices continued onsite during a time where there was high local community transmission.

COVID-19 is now part of our lives and community transmission is in Darwin and the NT. It is important to reduce the risk of transmission of COVID-19 amongst staff when they are at work as it is more likely that people will become infected living their daily lives, that at CNR where strong infection control measures are used every day. This means we need to be mindful about how we behave in the Green Zone we are more likely to transmit COVID with our colleagues in this space than in the orange or red zone due to our PPE protocols.

Increasing awareness and close monitoring of COVID safe behaviour and CNR's infection controls will contribute to reducing COVID19 transmission between staff in the green zone and reduce the number of close contacts should a staff member be diagnosed.

All the time COVID-Safe practices

These are some of the practices we already do and must continue;

- Surgical face masks worn in all indoor settings, unless you are the only person in the office space
- Physical distancing of 1.5 meters must occur at all practicable times
- Frequently sanitise your hands with hand sanitiser and/or washing
- Monitoring the number of people in a room, use larger rooms or outdoor spaces for meetings to ensure 1.5 meters
- Remind, call out and support all colleagues to COVID safe behaviours and PPE use e.g. making sure people's masks are on right, remind to hand sanitise, taking self-responsibility to be 1.5 metres apart
- Promote and support the booster vaccination for all staff
- Wipe down tables and other areas where you have touched with disinfectant wipes at the end of meetings
- Wiping down your desk, keyboard and work space regularly with disinfectant wipes
- Cleaning teams regularly completing high touch surface cleaning
- CNR ID cards 'taping' that are used for contact tracing between staff
- COVID-19 surveillance testing

What other things we now need to do

All agencies and contractors must remind and support staff to be COVID safe in their life outside work. Abiding by the CHO Direction to wear masks, make COVID safe decisions in their family and social lives, use the Check in app and promote COVID safe behaviour with friends and family. Every time CNR staff members promotes and demonstrate COVID-safe behaviour in their day to day lives, helps keep others safe, not just their work colleagues.

Where possible, breaks and snacks are not to occur in small or enclosed areas with other staff as masks are removed to eat and drink. Look for larger areas or outdoor spaces. If it is not safe to do this (e.g. weather) keep the door open, to maintain good ventilation.

Review all your meetings, particularly those where teams of staff are meeting to handover or jointly training. Look for ways to reduce risk of spread between teams. Conduct the handover in a larger space, keep the teams distanced from each other or where possible conduct over TEAMS/ZOOM etc.

Review who needs to be in a face to face meeting to reduce the number of people coming together. Smaller groups in short periods is best.

Review how staff are grouped in teams, particularly those who work together all shift. Smaller teams, within the shift reduce the amount of close contacts.

NT Health Pod afternoon teams will wear an N95 mask and eye protection when they are in the pods from commencement of their shift to when the morning shift leaves for the day. When the morning shifts leaves, the afternoon team will doff and don the usual surgical mask. This is being implemented because of the number of staff in the pod and it is necessary for good service for face to face handover to occur.

Appendices D

This strategy was established at the Centre for National Resilience to assess staff working onsite at the quarantine service in relation to risk of transmission of COVID-19 into the community (from an infected worker).

NT Quarantine Facilities Single Site Employment Risk Assessment

Issue identification

CHO Direction 12, Part 2(5) stipulates that "a quarantine worker who works at a quarantine facility must not work at another workplace".

This Direction has proved to be practically difficult to implement because of a lack of sufficient employment in quarantine sites and a lack of an available alternative pool of employees.

The Direction applies to "any person whose employment involves carrying out functions or providing services necessary for the ordinary operation of quarantine". As such it currently applies to all workers at the Centre for National Resilience (CNR) and the Todd Facility regardless of their duties or potential exposure to COVID-19.

The AHPPC Statement on National Principles for Managed Quarantine (updated 7 June 2021) states that "requirements for managed quarantine staff should align with national guidelines endorsed by the AHPPC and the Communicable Diseases Network Australia (CDNA). This may include requirements about:

- Secondary employment in high-risk settings"

Hazard assessment

Managed quarantine for international arrivals to Australia and domestic arrivals from hotspots to the NT is our first line of defence against COVID-19.

To date, no NT quarantine facilities have had any relevant events where transmission of SARS-C-oV-2 occurred within the facility. However, transmission events continue to occur in hotel quarantine in other jurisdictions, including to quarantine workers who may then expose and transmit to the broader community.

Dose-response relationships

The risk of transmission to quarantine workers increases as contact with confirmed COVID-19 cases, their close contacts and people required to quarantine increases. The quarantine facilities are divided into three zones representing the level of contact with infected or potentially infected people.

Red Zone

The Red Zone houses confirmed COVID-19 infection cases and their close contacts. Access to the Red Zone is limited to:

- Senior registered nurses
- Medical practitioners
- Senior operations staff trained and approved by Infection Control Lead

There are static security officers outside the entrance to Red Zone who do not enter the Zone.

At the CNR, the Red Zone has a separate demountable operations centre and is fenced with a separate entrance and

exit to all other quarantine zones. All health staff working in the Red Zone remain separated from the Orange Zone staff with no crossover on site including having their meals delivered to the Red Zone demountable.

The Todd Facility does not have a separate operations centre and is not fenced separately. The Red Zone at the Todd Facility has not yet been activated due to a positive case.

Orange Zones

The Orange Zones at the CNR house individuals who have travelled overseas in the last 14 days including repatriation flight arrivals, and individuals who have been in a domestic geographical area of risk (hot spot) in the last 14 days. The Orange Zones at the Todd Facility only house individuals who have been in a domestic hot spot in the last 14 days. Access to each orange zone is limited to staff responsible for the residents in that zone, including:

- Registered nurses
- Medical practitioners
- Operations staff
- Welfare officers
- Security officers
- Police
- Hotel food and beverage and housekeeping staff

At the CNR, there are static security officers outside the entrance to each Orange Zone who do not enter the Zone however at the Todd Facility the security officers sit within the Orange Zone.

Green Zones

The Green Zone is outside the Red and Orange Zones. The Green Zone is the safe space for staff on site and includes entry and exit points, administration areas, catering areas and staff accommodation.

This is also the only Zone that workers providing services to quarantine facilities that do not require direct contact with staff or guests have contact with i.e. deliveries – mail, office supplies, waste management.

Risk mitigation

Personal protective equipment (PPE)

All quarantine workers including all contractors entering an NT Quarantine Facility undergo training in the hierarchy of controls for COVID-19 transmission and PPE donning and doffing. Infection control nurses check the integrity of PPE processes continuously. All staff go in and out of quarantine zone in pairs (buddy system) with partners responsible for checking donning and doffing process and compliance with infection control within the Zone for each other. At the Todd Facility this occurs the majority of the time but is not always possible due to staffing numbers.

Staff testing

All staff working at NT quarantine facilities regardless of their role on site undergo COVID-19 testing according to a testing regimen approved by the CHO.

- Workers whose employment involves regular contact with the quarantine facilities must be tested every day that they are at work.
- Workers whose work means they have irregular contact with the quarantine facilities are required to be tested on day 3, day 7 and day 12 after the last date they had contact or provided the service.
- Workers whose employment involves indirect contact with the quarantine facilities are required to be tested every 7 days or their next workday.

Staff vaccination

Only vaccinated workers are allowed entry to the Red Zone or the Orange Zones. Staff working in the Green Zone only are not currently required to be vaccinated, although this is encouraged and both COVID-19 vaccinations are offered on-site at the CNR. Staff at the Todd Facility access vaccinations at a vaccination hub in Alice Springs.

Exposure assessment

High-risk settings are those in which there is evidence of a risk for rapid spread and ongoing chains of transmission if an infectious case is introduced. Settings, where disease is likely to readily transmit and be amplified, are those with a high population density, settings where people are living or working in close proximity to others, or specific environmental conditions. Occupational groups who work in high-risk settings are listed in Group A below.

Other groups of workers may have a greater potential to transmit if they are infected. These include casual and mobile employees working across multiple settings. There are several factors that may put them at higher risk, including multiple exposure points, staff who may have a perceived need to continue work despite being unwell, and language barriers for people from culturally and linguistically diverse backgrounds. Other people at increased risk of exposure and transmission are those in public-facing occupations or crowded settings. These occupational groups are listed in Group B below.

Occupational groups who work in high-risk settings (Group A)

- Health care facilities
- Residential aged care facilities
- Residential care facilities
- Aboriginal communities
- Correctional and detention facilities
- Homeless shelters and residential/crisis hostels
- Mining sites
- Food processing, distribution and cold storage facilities.

Other occupational groups that may be at higher risk of infection (Group B)

- Casual and mobile employees working across multiple settings including cleaners, rideshare service and taxi drivers, security personnel
- Those in public facing occupations or crowded settings such as hospitality, public transport and retail

All other occupational groups (Group C)

Risk characterisation

Risk assessment matrix – Other occupational group and work zone within NT quarantine facilities

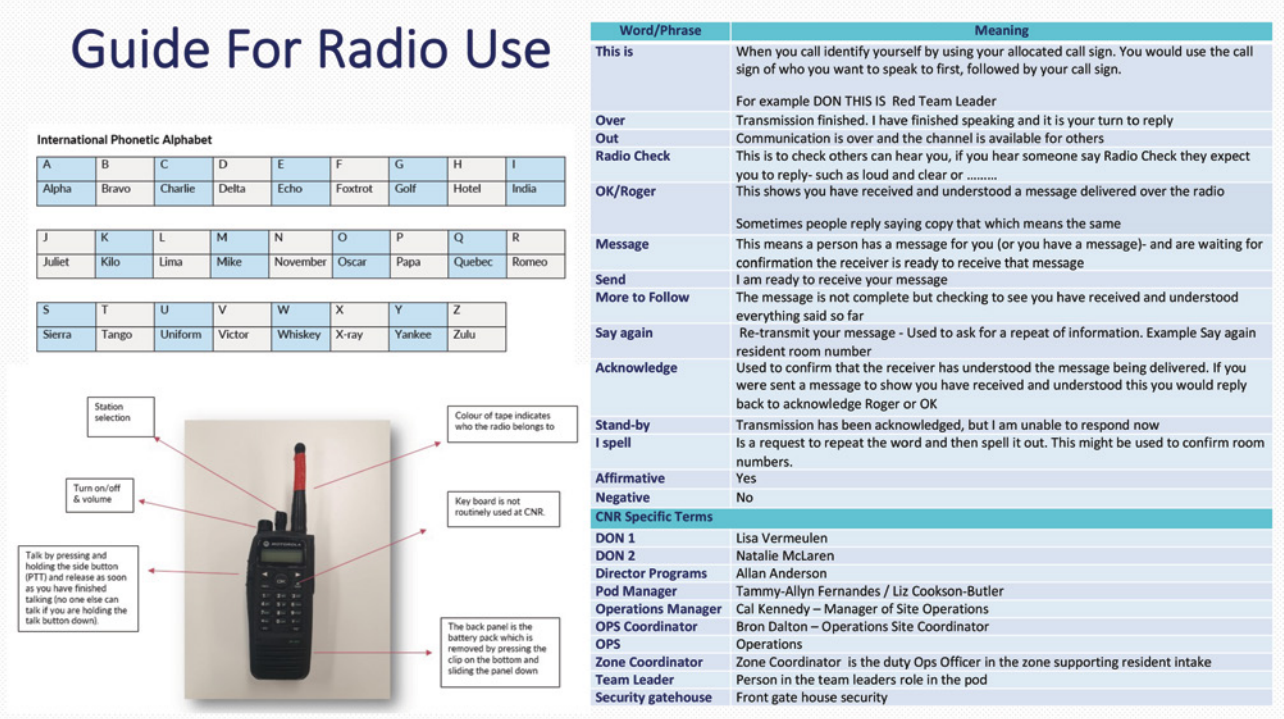
Additional employment group	Work Zone in NT quarantine facility		
	Green Zone	Orange Zone	Red Zone
Group A	Medium risk	High risk	High risk
Group B	Medium risk	High risk	High risk
Group C	Low risk	Medium risk	High risk

Recommendations

- Where risk is characterised as High Risk, employment should not be allowed
- Where risk is characterised as Medium Risk, employment should be allowed where the person is vaccinated.
- Where risk is characterised as Low Risk, employment should be allowed.
- A register should be kept at each NT quarantine facility that contains up-to-date information about employees' additional employment.

Appendices E

Poster used to guide the use of radios in the quarantine and isolation facility and International Phonetic Alphabet used when communicating with radios.



Section 1: International Phonetic Alphabet used when communicating with radios.

A	B	C	D	E	F	G	H	I
Alpha	Bravo	Charlie	Delta	Echo	Foxtrot	Golf	Hotel	India

J	K	L	M	N	O	P	Q	R
Juliet	Kilo	Lima	Mike	November	Oscar	Papa	Quebec	Romeo

S	T	U	V	W	X	Y	Z
Sierra	Tango	Uniform	Victor	Whiskey	X-ray	Yankee	Zulu