

RPA Virtual Hospital Strategic Action Plan

1 July 2024 to 30 June 2025



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Acknowledgement of Country

Sydney Local Health District acknowledges that we are living and working on Aboriginal land. We recognise the strength, resilience and capacity of Aboriginal people on this land. We would like to acknowledge all of the traditional owners of the land and pay respect to Aboriginal Elders past and present.

Our District acknowledges *Gadigal*, *Wangal* and *Bediagal* as the three clans within the boundaries of the Sydney Local Health District. There are about 29 clan groups within the Sydney metropolitan area, referred to collectively as the great *Eora Nation*. *Always was and always will be Aboriginal Land*.

We want to build strong systems to have the healthiest Aboriginal community in Australia.

Together under the Sydney Metropolitan Partnership Agreement, including the Aboriginal Medical Service Redfern and in collaboration with the Metropolitan Local Aboriginal Land Council, Sydney Local Health District is committed to achieving equality to improve self-determination and lifestyle choices for our Aboriginal community.

Ngurang Dali Mana Burudi – A Place to Get Better

Ngurang Dali Mana Burudi — a place to get better, is a view of our whole community including health services, Aboriginal communities, families, individuals and organisations working in partnership.

Our story

Sydney Local Health District's Aboriginal Health story was created by the District's Aboriginal Health staff.

The map in the centre represents the boundaries of Sydney Local Health District. The blue lines on the map are the Parramatta River to the north and the Cooks River to the south which are two of the traditional boundaries.

The *Gadigal*, *Wangal* and *Bediagal* are the three clans within the boundaries of Sydney Local Health District. They are three of the twenty-nine clans of the great *Eora Nation*. The centre circle represents a pathway from the meeting place for Aboriginal people to gain better access to healthcare.

The Goanna or *Wirriga*

One of Australia's largest lizards, the goanna is found in the bush surrounding Sydney.

The Whale or *Gawura*

From June to October pods of humpback whales migrate along the eastern coastline of Australia to warmer northern waters, stopping off at Watsons Bay the traditional home of the Gadigal people.

The Eel or *Burra*

Short-finned freshwater eels and grey Moray eels were once plentiful in the Parramatta River inland fresh water lagoons.

Source: Sydney Language Dictionary



Artwork

Ngurang Dali Mana Burudi — a place to get better

The map was created by our Aboriginal Health staff telling the story of a cultural pathway for our community to gain better access to healthcare.

Artwork by Aboriginal artist Lee Hampton utilising our story.

Australia's first virtual hospital

RPA Virtual Hospital's vision is to be a world leader in virtual care.

Sydney Local Health District is located in the centre and inner west of Sydney. The District is responsible for providing care to more than 740,000 local residents and a large number of people who travel to the District to use its tertiary and quaternary services. It is a highly populated district covering 126 square kilometres.

Sydney Local Health District includes comprehensive community-based health services, principal referral hospitals at Royal Prince Alfred and Concord Hospitals, a major metropolitan hospital at Canterbury, an aged care and rehabilitation specialist hospital at Balmain and a tertiary oral health facility. Services are linked with primary care providers, including the Central and Eastern Sydney Primary Health Network.

Sydney Local Health District supports other local health districts, particularly in rural areas by providing access to its tertiary and quaternary services and through education and training, clinical leadership and clinical outreach.

The Sydney Local Health District Strategic Plan recognises the significant challenges facing the District in delivering healthcare in the 21st century; rapid population growth, diverse and ageing communities, the changing approaches to delivering health and medical care and the explosion of new information, imaging and medical technologies.

The introduction of RPA Virtual Hospital

Since its inception in February 2020, RPA Virtual Hospital (rpavirtual) has continued to evolve into one of Australia's largest, most advanced, and complex virtual health care services. It provides a growing number of real alternatives to hospital services in both inpatient and outpatient care, using the full range of virtual care options.

The potential benefits of a virtual hospital are significant and include inpatient hospital admissions avoided, reduction of unnecessary emergency department presentations, better coordination of care across hospital and community settings, improved patient and carer experience, by supporting patients to remain in their home or to remain in a local hospital with specialised support provided from a distance.

RPA Virtual Hospital acts both as an extension to existing services as well as providing purpose designed new health care services. rpavirtual incorporates a multi-disciplinary Virtual Care Centre, the long-standing Sydney District Nursing service, and an Integrated Chronic Care service delivering respiratory chronic care nursing and multi-disciplinary palliative care.

RPA Virtual Hospital is formally accredited under the National Safety and Quality Health Service Standards, the Aged Care Quality Standards, under the Royal Australian College of General Practitioners as a vocational training site and under the Australasian College of Emergency Medicine as a virtual care site.

The facility's strategic priorities align with the [Sydney Local Health District Strategic Plan](#) and Health Care Services Plan. rpavirtual is included in the [Digital Health Strategy](#) as a flagship service.

Our strategic objectives:

1. Support patient flow in Sydney Local Health District's acute hospitals by delivering hospital care in the community.
2. Deliver safe, high quality and efficient services.
3. Enhance the patient experience of healthcare.
4. Inform the role of virtual care by articulating the model and its capabilities and demonstrating its viability and financial sustainability.



5. Continue to leverage Sydney Local Health District specialist services to identify opportunities for collaborative case management.
6. Strengthen integration with primary care on identified patient cohorts, communication and referral pathways and delivery of shared care with general practice.
7. Continue to investigate opportunities to support Sydney Local Health District services to enhance existing models of care through the introduction of virtual care.
8. Inform the broader adoption of virtual health across Sydney Local Health District and NSW by conducting original research and piloting new technological capability.
9. Support the Far West Local Health District by extending virtual care programs and services to the residents of the Far West region.

We have maintained our partnership with the Menzies Centre for Health Policy and Economics at the University of Sydney to evaluate the performance and sustainability of **rpavirtual**. This collaboration continues with a particular focus on detailed economic analysis of our virtual clinical programs, including analysing resources used, health outcomes, cost effectiveness and potential funding mechanisms.

We are collaborating with several research institutes to contribute new evidence regarding virtual care, most notably the Institute for Musculoskeletal Health, the RPA Green Light Institute for Emergency Care and the RPA Institute of Academic Surgery.

We are a core member of the Sydney Health Partners Virtual Care Clinical Advisory Group and are collaborating with the Digital Health Cooperative Research Centre on several projects.



Virtual Care Centre



The Virtual Care Centre provides multidisciplinary clinical care for patients with acute and sub-acute medical conditions. Patients enrolled for virtual care are supported through a hybrid model in a community setting and have access to the Virtual Care Centre clinical team 24 hours a day, seven days a week through a 1800 number.

rED: Virtual Urgent Care and Emergency Department

- Hybrid model
 - Emergency medicine and GP specialists
 - Specialist nurse triage and assessment
 - Face to face assessment (paramedics, ED triage nurses, community nurses)
 - FirstNet response time KPIs
 - Short Stay Unit and Follow-Up Clinic
-

- All urgent care conditions with exclusion criteria specified.
- Assessment, investigation, treatment, disposition, referral and follow-up.
- Intensive case management program for frequent presenters to the ED with complex health and social care needs.

Referral sources:

- Sydney LHD Hospital Emergency Departments
- Far West LHD (Broken Hill) Emergency Department
- NSW Ambulance paramedics on scene
- NSW Ambulance Virtual Clinical Care Centre
- Sydney District Nursing and Respiratory Chronic Care Nursing in patients' homes
- RACF Triage Line

Onward referral to:

- Virtual Fracture Clinic
- Virtual Trauma
- Acute Respiratory Conditions
- Psychology and Social Work
- Community Nursing
- Emergency Hospital in The Home
- RACF Outreach
- Paediatric Assessment Clinic
- General Practice Casualty
- Emergency Departments
- In-person Urgent Care Services

Technology-enabled assessment and review:

MS Teams and My VirtualCare video conferencing, electronic medical record, FirstNet dashboard.

Virtual Urgent Care priority activities:

- Expand operating hours to seven days a week including evenings.
- **rpavirtual** as single digital front door for the District's virtual urgent and emergency care services.
- Expand the Virtual Hub in-reach model to Canterbury and Concord Hospitals, and Balmain Hospital General Practice Casualty.
- Introduce a new referral pathway from general practice.
- Investigate the patient and clinician experience of an alternative virtual pathway.

Physiotherapy Department

Fracture Clinic

- Virtual model
 - Periodic (single discipline) physiotherapy
 - Scheduled reviews –initial, two-weeks and six-weeks post-injury
 - Orthopaedic support
 - Wide age range, including paediatrics
-

There is evidence from the Royal Melbourne Hospital and the United Kingdom's National Health Service that a virtual fracture clinic can provide safe, quality and cost-effective care for patients with simple fractures and musculoskeletal injuries.

Technology-enabled therapy:

MS Teams video conferencing, Physitrack app, electronic medical record, HealthLink eReferral, HealthPathways web-based portal.

Referral sources:

Virtual Care Centre, General Practice, Sydney LHD emergency departments, Broken Hill Base Hospital Emergency Department.

Khan SA, Asokan A, Handford C, Logan P, Moores T. How useful are virtual fracture clinics?: A systematic review. Bone Jt Open. Nov 1 2020;1(11):683-690. doi:10.1302/2633-1462.111.Bjo-2020-0107.R1

Low Back Pain Service (Back@Home)

- Hybrid model
 - Periodic (single discipline) physiotherapy
 - Medical review
 - Average age 47 years
 - Average length of stay 7 days
-

The Low Back Pain Service aligns with the Australian Commission on Safety and Quality in Health Care Low Back Pain Clinical Care Standard (Sept 2022), and the NSW Agency for Clinical Innovation Management of People with Acute Low Back Pain Model of Care (Nov 2016).

Technology-enabled therapy:

MS Teams video conferencing, Physitrack app, electronic medical record, e-referral.

Referral source:

Sydney LHD emergency departments.

Australian Commission on Safety and Quality in Health Care. Low Back Pain Clinical Care Standard. Sydney: ACSQHC; 2022.

NSW Agency for Clinical Innovation. Management of people with acute low back pain: model of care. Chatswood; NSW Health; 2016.



Physiotherapy Department priority activities:

- Conduct a non-inferiority randomised controlled trial to evaluate the effects of the Virtual Fracture Clinic compared with in-person fracture clinic care on the physical function of people with simple fractures.
- Continue the Low Back Pain, Back@Home, clinical trial in collaboration with the Institute for Musculoskeletal Health and complete data collection.
- Trial a hybrid working arrangement for **rpavirtual** physiotherapists to maintain in-person clinical care skills.

93%
would use virtual
fracture care again
if given a choice



Rehabilitation Service

- Hybrid model
- 20 x virtual bed rehab ward
- Daily (multi-disciplinary) allied health therapy
- Rehabilitation Specialist medical review
- In-home appointments as required
- Individual and group programs
- Mixed diagnoses
- Average age 63 years
- Average length of stay 14 days

The Virtual Rehabilitation Service aligns with the NSW Agency for Clinical Innovation Principles to Support Rehabilitation Care (April 2019).

Technology-enabled therapy:

MS Teams video conferencing, Physitrack app, configured iPad, electronic medical record.

Referral source:

Sydney LHD hospital wards.

NSW Agency for Clinical Innovation. Principles to Support Rehabilitation Care. Chatswood; NSW Health; 2019.

Rehabilitation Service priority activities:

- Deliver pre-and post-rehabilitation for the Same Day/Short Stay Joint Replacement Program cohort, once the program is implemented in Sydney LHD Surgical Services.
- Conduct a qualitative study interviewing Virtual Rehabilitation Service patients and their carers to gain insight into their experience and ways to improve service delivery.



Trauma Ward

- Virtual model
- Specialist nurse-led review and care coordination
- Medical review
- Physiotherapy, psychology and social work reviews
- Average length of stay 20 days

The Virtual Trauma Service aligns with the NSW Agency for Clinical Innovation's Institute of Trauma and Injury Management Model of Care for improving the quality of trauma care in NSW.

Technology-enabled assessment and review:

MS Teams video conferencing, electronic medical record.

Referral sources:

Virtual Care Centre, Sydney LHD hospital Surgical Services and Emergency Departments, RPA Hospital Trauma Service.

NSW Agency for Clinical Innovation. Improving the Quality of Trauma Care in NSW: Trauma Services Model of Care. Sydney: ACI; 2019.

Trauma Ward priority activities:

- Expand the Virtual Trauma Service to include intensive care and major trauma patients.
- Develop an **rpavirtual** RCT protocol to evaluate the community management of patients with fractured ribs across the District using the Sydney LHD Rib Fracture audit analysis.
- Conduct a qualitative study interviewing Virtual Trauma Service patients and their carers to gain insight into their experience and ways to improve service delivery.

The Virtual Trauma Ward
has supported patients and
reduced hospital stays by

2 days 

Acute Respiratory Ward

- Hybrid model
 - 15-20 x virtual bed respiratory ward
 - Medically led
 - Daily nurse assessment
 - In-home IV antibiotics and titration of asthma/COPD therapy
 - Average length of stay 4 days
-

The Acute Respiratory service builds on the Virtual Care Centre expertise developed in caring for over 37,000 COVID-19 patients in the community, including those at highest risk of deterioration. The program has been expanded to include patients with community acquired pneumonia, viral diseases other than COVID, exacerbation of Chronic Obstructive Pulmonary Disease/asthma, and exacerbation of other chronic respiratory diseases.

Technology-enabled remote monitoring:

MS Teams video conferencing, Miya Care app, iHealth wearable devices, Miya Precision integrated clinical decision support platform, electronic medical record, HealthLink eReferral, HealthPathways web-based portal.

Referral sources:

Virtual Care Centre, Sydney LHD emergency departments and wards, General Practice.

Acute Respiratory Ward priority activities:

- Pilot a Pulmonary Embolism Service for the management of low to intermediate risk pulmonary embolisms in the community.
- Introduce cross-referral of patients between the Respiratory Chronic Care Program and the Acute Respiratory Service.
- Investigate the experience of patients referred to the Acute Respiratory Service to understand any challenges encountered when using virtual care and what solutions can be provided.
- Analyse COVID-19 patient data to explore the sub-cohorts of Aboriginal patients, antenatal patients, patients from culturally and linguistically diverse backgrounds, and the COVID-19 Delta cohort.

‘I got to recover in the comfort of my own home, with uninterrupted sleep and without losing individualised care.’

rpavirtual Acute Respiratory Ward patient

Wound Care Command Centre™

- Hybrid model
- Specialist nurse-led care provision
- Average age 63 years
- Average length of stay 48 days

The viability and acceptability of a wound care service for patients through the Wound Care Command Centre and a digital application was assessed in a Sydney Local Health District research study in 2020, with findings supporting the introduction of this new digital model of care.

Technology-enabled remote monitoring:

MS Teams video conferencing, digital wound application (Tissue Analytics™) and clinical data dashboard, electronic medical record.

Referral sources:

Sydney LHD hospital wards, Sydney District Nursing, Residential Aged Care Facilities, General Practice.

Wound Care Command Centre priority activities:

- Improved integration and collaboration of all wound care specialist nurses (Wound Care Command Centre and Sydney District Nursing) to increase service capacity.
- Expand the reach of the Wound Care Command Centre to local general practitioners, with a focus on the culturally and linguistically diverse population in the western zone of the district.
- Accept referrals from the Far West Local Health District, providing specialist nursing wound care advice to isolated patients who would otherwise travel long distances to receive the same level of care.

more than

90%



of patients found the Wound Care Command Centre effective and accessible, and were satisfied with their care

Surgical Ward

Acute Diverticulitis

- Hybrid model
 - Daily nursing assessment
 - Daily medical review
 - In-home pathology collection and IV therapy
 - Average length of stay 3 days
-

There is emerging evidence that selected patients with uncomplicated diverticulitis can be safely managed entirely in the community. This model of care has commenced as a clinical trial and findings will be used to determine whether the model transitions to a 'business as usual' clinical service.

Technology-enabled remote monitoring:

MS Teams video conferencing, Miya Care app, iHealth wearable devices, Miya Precision integrated clinical decision support platform, electronic medical record.

Referral sources:

Sydney LHD hospital Colorectal Teams.

Surgical Ward priority activities:

- Complete the acute diverticulitis clinical trial in partnership with Colorectal Surgical Services and (trial outcomes dependant) move to an enhanced business-as-usual model for the remote monitoring for acute diverticulitis. This will include more complex patients with increased acuity, frequent pathology collection, extended IV antibiotic therapy and virtual clinical monitoring.
- Introduce an Acute Day Only Surgery model for appendicitis and cholecystitis patients.

Miya Precision — an integrated clinical decision support platform used for remote patient monitoring



Chronic conditions

Yudi – 48 Hour Follow Up: Aboriginal Chronic Disease Care Coordination

- Hybrid model
 - Aboriginal Health worker-led
 - Patient contact within 48 hours of discharge from hospital
 - Assessment of patient wellbeing
 - Review of discharge plan with patient including medical appointments and medication supplies
 - Confirmation patient is connected with a GP
 - Confirmation family support at home or in the community is available
 - Liaison with primary care and non-government services
 - Onward referral to My Aged Care and Aboriginal Chronic Care Program if relevant
 - Average age 57 years
-

This service aligns with the NSW Agency for Clinical Innovation Guidelines for the 48 Hour Follow Up Chronic Care for Aboriginal People, first introduced in 2009. A related performance measure is the number of unnecessary hospital re-admissions within 28 days of discharge from hospital.

Technology-enabled therapy:

Telephone, SMS messaging, MS Teams video conferencing, electronic medical record.

Referral sources:

Sydney LHD hospitals.

NSW Agency for Clinical Innovation. Chronic Care for Aboriginal People Model of Care, September 2010.

Yudi – 48 Hour Follow Up priority activities:

- Document the model of care and associated procedures including the referral pathway to the Aboriginal Chronic Care Program and other District Aboriginal teams, in particular for patients discharging from hospital against medical advice.
- Finalise patient material in consultation with local Aboriginal Elders.

Yudi – to escort or
to see home 

Source: The Sydney Languages Directory

Long COVID Program

- Virtual model
 - Medical review of treatment plans
 - Multi-disciplinary team case review and management recommendations
 - Streamlining care coordination
 - Allied health group program to support patient self-management
 - Average length of stay 18 days
 - Average age 48 years
-

The Long COVID service aligns with the NSW Agency for Clinical Innovation Long COVID Model of Care, in particular stage two which focusses on integrated care management.

Technology-enabled therapy:

MS Teams video conferencing, electronic medical record, NSW ACI HOPE Platform, MEMOREhab platform.

Referral sources:

General Practitioners and non-GP Specialists.

NSW Agency for Clinical Innovation. Long COVID organisational model of care. Sydney: ACI; 2023.

Long COVID program priority activities:

- Provide evidence-based guidance for local GPs on the management of Long COVID.
- Provide targeted interventions and support to patients experiencing Long COVID on strategies to manage symptoms.
- Assess the effectiveness of a virtual group program for patients presenting with memory difficulties post-stroke or with Long COVID, using the MEMOREhab telehealth platform.

77%



of patients said their virtual appointment was the same or better than an in-person appointment

Additional services

In addition to the core clinical services and programs listed, the Virtual Care Centre provides:

- Psychology services
- Complex case management
- Social work services
- Midwifery care
- Patient support, symptom management and service navigation
- Medication monitoring

A clinical pharmacist is available to support governance of medication reconciliation, medication safety and anti-microbial stewardship. Governance is through the RPA Virtual Hospital Medication Safety Committee.

Clinical pharmacist priority activities:

- Implement policies and procedures for safe medication handling in accordance with the National Safety and Quality Health Service Standards and NSW Health policy directives.
- Identify deviations and opportunities for quality improvement by evaluating insights gained from medication-related audits.
- Distribute pertinent medication-related information to all patients.
- Work collaboratively with the multi-disciplinary clinical team to foster collaboration, ensure optimal patient care outcomes and the delivery of high-quality clinical services.

Other Virtual Care Centre priority activities:

- Expand the Eating Disorders Service, vE-Connect, to include direct access for patients, their families and carers.
- Finalise the pilot of the Virtual Hub for Homelessness model.
- Convene a virtual care research symposium.
- Introduce an RACGP accredited general practice registrar program.
- Complete a needs assessment to determine virtual care related education and training requirements for clinicians and develop related education modules in collaboration with Sydney Education, the NSW Health Education and Training Institute and relevant tertiary institutions.
- Provide professional development opportunities for senior medical staff, both individually and as a group, in collaboration with the District's MDOK program.

Collaboration with Far West Local Health District



Providing equitable healthcare in regional and rural Australia is challenging due to vast geographical distances, limited resources, increasing patient complexity and demand on healthcare services.

The Far West Local Health District is the most dispersed population of any in NSW, more than 30,000 people live across 194,949 square kilometres, and has the highest proportion of Aboriginal residents at 12%.

Artworks: Aboriginal artists from Sydney and Far West Local Health Districts collaborated to tell of the importance of partnerships to deliver healthcare on country in these beautiful works.

Above left: **Shaun Kemp**, *Kutanya Kumpa*, 2022

Above right: **Leona McGrath**, *Collaborating and connecting*, 2022

RPA Virtual Hospital is committed to supporting the Far West Local Health District by extending virtual care programs and services to their residents. This currently includes:

- **rpavirtual** Emergency Medicine Specialists and Clinical Nurse Consultants providing advice and support to junior doctors and nursing staff at Broken Hill Base Hospital Emergency Department through the **rpavirtual Emergency Department (rED)**.
- **rpavirtual** Clinical Nurse Consultants and midwives providing support, clinical guidance and education to frontline nurses and midwives working at Multi-Purpose Sites in the Far West.
- Accepting patient referrals from the Far West Local Health District for **Virtual Midwifery Care**.
- Accepting patient referrals from Broken Hill Base Hospital for the **Virtual Fracture Clinic**.

Sydney District Nursing



Clinical Services

Sydney District Nursing provides acute, sub-acute, and post-acute care as a substitute to in-hospital care for patients in the community. Care is provided at the patient’s home, at a Health Centre ambulatory care clinic or other community setting, including Residential Aged Care facilities.

Chronic and complex care

Most of the Sydney District Nursing chronic and complex care service referrals are for wound care management that require specialised nursing care.

- Hybrid model with referrals to the Wound Care Command Centre
- Nurse-led care provision and specialist nurse review
- Superior wound products
- Negative pressure wound therapy and compression bandaging
- Post-surgical wound and drain management
- Chronic and complex long-standing wound management
- Continence care assessment and management
- In-home IV therapy
- Average age 69 years
- Average length of stay 241 days

Community palliative care

Sydney District Nursing palliative care in the home to patients with a life-limiting illness.

- Hybrid model with 24/7 symptom management and support
- 450 x virtual beds
- Nurse-led care provision and specialist nurse review
- Medical assessment and review
- In-home assessment and symptom management
- Advance Care Planning
- Carer education and support
- End of Life care
- Supported death at home
- Average age 72 years
- Average length of stay 166 days

Our nurses supported

95% of palliative care patients to die in their preferred place of death 

(Mar 2023 to Apr 2024)

Hospital in The Home

- Nurse-led care provision
 - Medical assessment and review
 - Short and long-term in-home IV therapy
 - Average age 64 years
 - Average length of stay 12 days
-

The conditions treated through this model of care can include cellulitis, bacteraemia, endocarditis, pneumonia, septic arthritis, urinary tract infections, wound infections and liver abscesses. Care is provided in partnership with Hospital in The Home Services based at Royal Prince Alfred, Concord, Canterbury and Balmain Hospitals.

Chronic conditions – HIV specialist nursing service

- Specialist nurse-led care provision including care coordination
 - HIV Specialist medical assessment and review
 - In-home IV therapy
 - Average age 52 years
 - Average length of stay 737 days
-

People living with HIV and complex needs can be extremely vulnerable and may experience substance abuse, cognitive impairment, mental illness, behavioural disturbance, homelessness, complex physical illness and poor access to healthcare.

Sydney District Nursing referral sources:

Virtual Care Centre, Sydney LHD hospitals, other hospitals including private hospitals, Chris O'Brien Lifehouse, General Practice.

Sydney District Nursing technology-enabled care:

Electronic medical record, HealthLink e-referral, Tissue Analytics application

Sydney District Nursing Ambulatory Care clinics:

Redfern, Marrickville and Croydon Health Centres and RPA HealthOne

Sydney District Nursing priority activities:

- Increase efficiency by increasing throughput in Sydney District Nursing Redfern, Marrickville and Croydon ambulatory care clinics.
- Review the transition from single-use compression bandaging to Fallow Wraps including patient selection criteria, any impact on manual handling, the patient experience and associated costs.
- Complete a research project assessing the needs of palliative care patients at home in the last weeks of life to identify services and/or particular care required to support patients and their carers.
- Complete a research project assessing people living with HIV who are over 50 years of age for frailty to determine the prevalence of frailty, assess and enhance quality of life, and inform the development of new models of care for people living with HIV who are ageing.
- Evaluate the effectiveness of a co-designed health literacy education module for Sydney District Nursing staff.
- Facilitate succession planning for Sydney District Nursing Advanced Practice Nurses by introducing an advanced practice relief pool.

Integrated Chronic Care

Respiratory Chronic Care Nursing

- Multi-disciplinary assessment
 - Nurse-led treatment and care and specialist nurse review
 - Comprehensive care planning
 - Patient and carer education
 - Care coordination across settings
 - Long term follow-up and management
 - Average age 72 years
 - Average length of stay 302 days
-

The Respiratory Chronic Care program offers comprehensive disease management for individuals with chronic respiratory conditions like asthma, Chronic Obstructive Pulmonary Disease and bronchiectasis. It focuses on early detection, prevention and patient education to reduce exacerbations and complications. Patients and their carers receive training in self-management, including medication adherence and lifestyle adjustments. The program promotes healthy behaviours such as smoking cessation, pulmonary rehabilitation and offers multidisciplinary care and support from non-government agencies.

Technology-enabled care:

Electronic medical record

Referral sources:

Sydney LHD respiratory wards and pulmonary rehabilitation teams, Sydney District Nursing, General Practice, other local health districts.

Severe Asthma Ambulatory Care clinic:

Concord Hospital

Respiratory Chronic Care priority activities:

- Pilot a nurse-led smoking clinic in collaboration with Concord Hospital's Respiratory Department.
- Publish research findings on the effect of an audio-visual media presentation on uptake of advanced care planning among community-based patients with chronic lung disease.
- Initiate a quality improvement project to determine the cross-section of respiratory diseases within the Respiratory Chronic Disease Program and associated research project to investigate factors contributing to the selected respiratory disease, management strategies and any gaps in care delivery, and then implement interventions to improve outcomes for patients.

Chronic Disease Palliative Care Service

- 160 x virtual beds
- Periodic (multi-disciplinary) allied health therapy
- Specialist nurse review
- Medical assessment and review
- In-home assessment and symptom management
- Advance Care Planning
- Carer education and support
- End of Life care
- Supported death at home
- Bereavement follow-up
- Average age 78 years
- Average length of stay 154 days

The service enhances community care for people with late stage degenerative and chronic conditions in the last two years of life, with a dedicated multi-disciplinary team. The key focus of this program is Chronic Obstructive Pulmonary Disease, Chronic Heart Failure, dementia, neurodegenerative and renal diseases.



Technology-enabled care:

Electronic medical record, video conferencing.

Referral sources:

Sydney LHD and other hospitals, chronic disease nurse specialist, allied health professionals, General Practice.

Chronic Disease Palliative Care priority activities:

- Evaluate the program to demonstrate the efficiency, effectiveness and other benefits of offering allied health support to chronic disease palliative care patients in the last two years of life.
- Benchmark patient reported experience and outcomes and service performance data against the National Palliative Care Outcomes Collaboration data.
- Collaborate with Sydney Local Health District Oral Health Services and Western Sydney Dental Hospital to develop an education program for nurses to support the family members of palliative care patients to provide oral health care for their loved ones, who are at end of life and are being cared for at home.

Aboriginal Health

Sydney Local Health District's vision for Aboriginal health is to partner with Aboriginal communities and organisations to close the gap in health outcomes and to have the healthiest Aboriginal community in Australia. We call our Local Health District *Ngurang Dali Mana Burudi* – which means *a place to get better*.

The Inner West and City of Sydney councils have the highest number of Aboriginal residents in the District, with the lowest number of Aboriginal people residing in the Burwood local government area.

There are more than 7,000 Aboriginal and Torres Strait Islander people (1.1%) living in Sydney Local Health District. Redfern remains one of the most recognised and historically significant urban Aboriginal places in Australia.

In 2023, 5% of our Virtual Care Centre patients were Aboriginal and/or Torres Strait Islander, 2.3% of our Sydney District Nursing patients, and 2.4% of our Integrated Chronic Care patients.

All services and programs are available to Aboriginal community members, however those listed below may be of particular relevance:

- Acute Respiratory Service
- Yudi – 48 Hour Follow Up care coordination
- Emergency Department to Community program
- Respiratory Chronic Care Nursing
- Chronic Disease Palliative Care Service

Care is delivered mostly in patients' homes, either in-person, using technology or a combination of both.

Aboriginal Health Workers lead the Yudi – 48 Hour Follow Up Care Coordination Service.



A senior Aboriginal Health Worker provides cultural support and cultural consultancy for Aboriginal patients and their treating team.

Aboriginal Health Worker specific cultural support is offered to all Aboriginal and Torres Strait Islander patients of the Virtual Care Centre.

Virtual Care Centre patients can be referred internally to social work and psychology services.

Patients without smart devices are loaned a smartphone or given a re-purposed smartphone. Short-term data packages are also available if required.

Twelve percent of the population of the Far West Local Health District identify as Aboriginal. **rpavirtual** has collaborated with the Far West Local Health District, including the Aboriginal Health Unit, to extend virtual care to different patient cohorts. This includes patients with simple fractures, patients requiring midwifery care and patients being treated in the Broken Hill Base Hospital Emergency Department. In this way virtual care is able to support Aboriginal patients to receive treatment and care on country and avoid unnecessary transfer to a regional, metropolitan or interstate hospital.

Priority activities:

- Work with the Aboriginal Medical Service Redfern to extend virtual support for their patients, assist with navigating pathways to specialist services and to encourage direct referrals.
- Pilot the delivery of virtual care education for the Aboriginal community and explore other strategies for ongoing and accessible education, targeted communication and community engagement.
- Continue to raise awareness of the availability and experience of virtual care.

An RPA Virtual Hospital Aboriginal Steering Committee oversees and guides our work with Aboriginal communities. The Committee includes the invaluable contribution of a local Aboriginal Elder community member.

The Committee will be guided by the NSW Aboriginal Health Plan, the District's Strategic Plan and the Aboriginal Health Plan, all of which are currently under development. Additional priorities will be determined in consultation with our Aboriginal Steering Committee as these plans are finalised.

‘...was able to be treated at home rather than hospital. Nurses were absolutely very caring and efficient.’



Aboriginal patient, Sydney District Nursing

Culturally and linguistically diverse communities

Sydney Local Health District is rich in cultural diversity, with 55% of residents speaking a language other than English at home and 8% speaking little or no English. The major languages spoken at home include Chinese languages, Arabic, Greek, Korean, Italian and Vietnamese.

Health Care Interpreters join clinical appointments for all **rpavirtual** patients who require an interpreter. We are fortunate to have access to the Sydney Health Care Interpreter Service (SHCIS) in our District. If SHCIS is unable to provide interpreters, clinicians will use the National Telephone Interpreter Service.

The SHCIS also supports the translation of **rpavirtual** patient material, usually translated into the ten most significant languages of the population.

Patients with low English proficiency are offered in-language support to complete patient experience surveys through a Cultural Support Worker.

An RPA Virtual Hospital Multicultural Access Committee oversees and guides our work with Culturally and Linguistically Diverse communities and includes a consumer with experience of the hospital system. Clinical incidents that relate specifically to culturally and linguistically diverse patients are presented to the Committee for analysis and discussion.

Priority activities:

- Identify an improved digital solution to facilitate health care interpreters joining urgent care consultations using video conferencing from Virtual Hubs.
- Expand the reach of the Wound Care Command Centre to local general practitioners, with a focus on the culturally and linguistically diverse population in the western zone of the district.



Digital Health

The virtual hospital model is enabled by the Sydney Local Health District Digital Health and Innovation service and its close, collaborative partnership with **rpavirtual**.

Core digital health features of **rpavirtual**:

A shared patient **electronic medical record** is available to all District clinicians for **rpavirtual** patients, including clinicians delivering care in the community and in patients' homes.

An **integrated clinical data dashboard (Miya Precision by Alcidion)** supports remote patient monitoring and includes data from the patient's electronic medical record and any wearable devices. Data is blue-toothed to the dashboard through a **patient-facing app (Miya Care)**.

Whilst the District's medical records are not available to general practice, **electronic discharge summaries** are sent to GPs through **secure messaging** and core data uploaded into My Health Record.

Clinical management guidelines are available to general practice through the **HealthPathways** online portal and include HealthLink electronic referral forms where direct GP referral is accepted.

Tissue Analytics is a wound care and management platform that supports clinician tracking and analysis of wounds. The software uses artificial intelligence to measure wound dimensions and record tissue composition. Tissue Analytics is used by clinicians in the Wound Care Command Centre and in Sydney District Nursing. A mobile-friendly version of the software is provided to patients and allows them to monitor wound healing.

A **Digital Patient Navigator** is available to assist patients to set-up their technology to participate in virtual care and for tech troubleshooting.

Patients without **smart devices** are loaned a smartphone or given a re-purposed smartphone. Short-term data packages are also available if required. Rehabilitation patients are loaned a configured tablet.

Surveys capturing **Patient Experience Measures** are electronically distributed to all patients post-discharge with data collected, stored and analysed in the Research Electronic Data Capture (REDCap) web-based software program.

Surveys capturing **Patient Reported Outcome Measures** are clinician-administered and stored in the statewide Health Outcomes and Patient Experience (HOPE) IT platform.

Priority activities:

- Complete a strategic review of the Virtual Care Centre's digital infrastructure to inform the development of a technology roadmap.
- Advocate for a statewide solution for managing prescribing, medication dispensing, imaging and pathology documentation in the electronic medical record for patients receiving care in the community.

97%

of patients felt confident in the safety of virtual treatment and care



Research and evaluation

RPA Virtual Hospital research and evaluation is supported by a Research Governance Framework.

A summary of priority research and evaluation activities is detailed below.

Build evidence regarding the delivery of virtual care:

- Complete the acute diverticulitis clinical trial in partnership with Colorectal Surgical Services and (trial outcomes dependent) move to a business-as-usual model for remote monitoring for acute diverticulitis.
- Coordinate a non-inferiority randomised controlled trial to evaluate the effects of the Virtual Fracture Clinic compared with in-person fracture clinic care on the physical function of people with simple fractures.
- Continue the clinical trial regarding virtual care for low back pain in collaboration with the Institute for Musculoskeletal Health.
- Coordinate a clinical trial to evaluate the management of acute rib fractures in the community compared with inpatient care.

Demonstrate the viability and financial sustainability of a virtual hospital model:

- Complete a detailed economic analysis on the virtual clinical programs of **rpavirtual**, including analysing the resources used, health outcomes, cost effectiveness and funding mechanisms.
- Sustain excellence in patient care demonstrated by patient experience and outcome evaluation.
- Continue to administer and analyse patient reported measures.
- Investigate the experience of **rpavirtual** Emergency Department patients in being managed by an alternative pathway after calling an ambulance.
- Investigate the experience of patients referred to the Acute Respiratory Service to understand any challenges encountered when using virtual care and what solutions can be provided to improve experience.

- Collaborate with Sydney LHD Oral Health Services and Western Sydney Dental Hospital to develop an education program for nurses to support the family members of palliative care patients to provide oral health care for their loved ones, who are at end of life and are being cared for at home.
- Publish research findings on the effect of an audio-visual media presentation on uptake of advanced care planning among community-based patients with chronic lung disease.
- Initiate a quality improvement project to determine the cross-section of respiratory diseases within the Respiratory Chronic Care Program and associated research project to investigate factors contributing to the selected respiratory disease, management strategies and any gaps in care delivery, and then implement interventions to improve outcomes for patients.

Evaluate new **rpavirtual models of care, including patient experience and outcome measures. Cost-benefit analysis will be undertaken when appropriate:**

- Assess the effectiveness of a virtual group program for patients presenting with memory difficulties post-stroke or with Long COVID, using the MEMORehab telehealth platform.
- Complete a twelve-month evaluation of the Emergency Department to Community integrated care program.
- Investigate the clinician experience of implementing the **rpavirtual** Emergency Department model of care, including NSW Ambulance staff.

Use data collection to focus on studies most likely to impact policy and sustainability:

- Ensure data is collected prospectively to report on both activity and impact.
- Consolidate facility monitoring and evaluation data in the Research Electronic Data Capture (REDCap) web-based software program.



Interrogate existing datasets:

- Analyse COVID-19 patient data to explore the sub-cohorts of antenatal patients, Aboriginal patients, patients from culturally and linguistically diverse backgrounds and the COVID-19 Delta cohort.

Investigate access for vulnerable populations:

- Assess the e-health literacy needs and digital capabilities of virtual care patients to inform engagement and digital support strategies.
- Assess the needs of palliative care patients, and carers, receiving care at home in the last weeks of life to identify opportunities for service enhancement.
- Assess People Living with HIV who are over 50 years of age for frailty to determine the prevalence of frailty, quality of life, and to inform new models of care for people living with HIV who are ageing.
- Evaluate the effectiveness of a co-designed health literacy education module for Sydney District Nursing.

Build the research skills and capability of the rpavirtual workforce:

- Conduct qualitative interviews with patients, carers, clinicians and clinical leads for the Virtual Trauma and Virtual Rehabilitation services using an implementation science framework.
- Generate new research projects and collaboration by convening a virtual care research symposium with external stakeholders.
- Promote clinician participation in research and evaluation by showcasing their work at an annual staff forum.



Sydney
Local Health District

