Central Coast Local Health District

RESEARCH REPORT

2020-2021





HealthCentral Coast
Local Health District



Acknowledgement of Country

We pay our respect to these lands that provide for us. We acknowledge and pay respect to the ancestors that walked and managed these lands for many generations before us.

We acknowledge and recognise all Aboriginal people who have come from their own country and who have now come to call Darkinjung country their home. We acknowledge our Elders who are our knowledge holders, teachers and pioneers. We acknowledge our youth who are our hope for a brighter and stronger future and who will be our future leaders.



CENTRAL COAST LOCAL HEALTH DISTRICT

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Further copies of this document can be downloaded from the CCLHD website: www.cclhd.health.nsw.gov.au



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Foreword CCLHD Chief Executive

Driving Research into the Future

Having joined the Central Coast Local Health District (CCLHD) in November 2021, it has been wonderful to see the enthusiasm and commitment of our staff in striving to improve the quality of care we provide to our patients. This year has been a significant year for research at the CCLHD with the achievement of a number of key strategic priorities setting a solid foundation to build local research capabilities.

The opening of the Central Coast Clinical School and Research Institute (CCCSRI) by the District in partnership with the University of Newcastle in June 2021 has been a major milestone. The new state-of-the-art research building and facility to house the Central Coast Research Institute (CCRI), CCLHD Library, Research Office, and Central Coast Clinical School within the Health and Wellbeing Precinct provides space for the UON on site at Gosford Hospital, offering an exciting opportunity for healthcare students and staff.

Our research vision for CCLHD to become a leader in models of integrated care is being led by Professor Nick Goodwin, who has already secured significant grant funding for several projects with the District and is continuing to investigate funding and collaborative opportunities which will further build research capacity on the Central Coast.

Our partnership with the University of Newcastle has been further strengthened with the appointment of another Honorary Conjoint Scholar from the School of Nursing and Midwifery (Faculty of Health and Medicine), Associate Professor Sarah Yeun-Sim Jeong. Associate Professor Jeong brings a depth of knowledge and experience in palliative care research that will greatly assist the staff at the District with progressing projects in this area, and with potential mentoring and collaboration opportunities.

This year the COVID-19 pandemic has continued to present many challenges and I am proud of the response of our workforce, caring for our community and each other. I would like to thank the efforts of all staff involved in modifying research projects, including clinical trials, to implement altered requirements due to the pandemic and ensure that patients continue to receive the best possible treatments and health outcomes.

The development of the next five year Strategic Research Plan 2022-2026 has involved extensive consultation with stakeholders in the District and with external partners and will drive CCLHD research into the future. I look forward to being involved in implementing the Plan's research objectives in the coming year, with a focus on collaboration as well as education and training to build the research skills of our staff so that we can continue to deliver the highest quality of care to the Central Coast community.

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Scott McLachlan Chief Executive

Foreword CCLHD Board Chair

Delivering Research Commitments for the Future

It was with a sense of well-founded achievement that the new Health and Wellbeing Precinct housing the Central Coast Research Institute (CCRI) and the Central Coast Clinical School (CCCS) was opened in late June 2021. CCRI & CCCS now occupy first class facilities which will expand and enrich education and research activities on the Central Coast.

Our partnerships with the University of Newcastle, CCRI and with NSW Regional Health Partners (NSWRHP) continue to grow and develop and ensures CCLHD research will resolutely address important regional health challenges.

The NSWRHP 'Embedded Economist' project was a significant success with Professor Nick Goodwin as the Principal Investigator for the District. The embedded health economist was on-site between October 2020 and February 2021 for one to two days per week and provided very valued input to several research projects.

A joint proposal for the 2021 Cancer Institute NSW Translational Cancer Research Capacity Building Grants was successful. The collaborators include the NSW Advanced Health Research Translation Centres, the Sydney Partnership for Health, Education, Research and Enterprise (SPHERE), Sydney Health Partners, and NSWRHP. These grants are focused on establishing a statewide education strategy and program for clinicians and researchers involved in cancer research.

The Health Professionals Research Education Program (HPREP) continued with a session on "Economic Evaluations" by Dr Penny Reeves (from the Hunter Medical Research Institute, HMRI) and one in November 2020 entitled "Consumer Engagement in Research". The first HPREP session for 2021 was held in March on "Developing Grant Applications". These sessions have all been well attended and appreciated.

Our Honorary Conjoint Scholars program is delighted to welcome a new scholar, Professor Sarah Yeun-Sim Jeong (University of Newcastle). Her considerable research expertise will be particularly appreciated and we look forward to her mentoring and collaborating with our research staff. At the same time, we farewell Dr Robyn Rosina who was one of our inaugural Scholars. Her involvement in providing research advice, her participation in research projects and her support for research was greatly valued and we wish her well for the future.

The staffing of the CCLHD Research Office has now stabilised with the appointment of Dr Katherine Bolton as Research Manager and with appointments for the remaining research positions also being completed. Staffing stability has facilitated improvement in the processing and governance of increasing numbers of research projects. The Research Office is now located with the CCRI in the Health and Wellbeing Precinct.

With the CCLHD Research Plan 2017-2021 nearing its completion, the development of the succeeding Strategic Research Plan 2022-2026 has been proceeding over several months. This has involved wide consultation with District staff and researchers and our external research partners. It will take advantage of our state-of-the-art research facilities and expanding research expertise.

We look forward to another successful year bringing integrated research into "Caring for the Coast".

David of Mac Lallan

Professor Donald G. MacLellan Board Chair

Foreword CCLHD Director of Research

Investing in Research that Makes a Difference

It is an exciting time to be a health researcher on the Central Coast. The completion of the Central Coast Clinical School and Research Institute (CCCSRI) building on the Gosford Hospital campus in June 2021 has created a truly world-class education and research facility. Developed in partnership with the University of Newcastle, the opening of the CCCSRI was the culmination of the work of many, and a shared vision for a future improving the health and wellbeing of our community and transforming the local economy as the Central Coast becomes a region of choice for education, training and research.

This investment in our research infrastructure requires us to now move forward in ways that increase the involvement of health professionals and managers in research and creates opportunities for new research partnerships to form with our academic, industry and community partners. The last year has certainly been characterised by the increasing role that the CCLHD has played in this respect, including continued leadership in collaborative clinical trials, active involvement with NSW Regional Health Partners, and the growing portfolio of research activities of the Central Coast Research Institute for Integrated Care – the District's joint venture with the University of Newcastle, designed to deliver meaningful, evidence-based improvements in integrated health and care services to the local community and beyond.

The continued impact of COVID-19, and the necessary prioritisation of staff in responding directly to this pandemic to ensure patients continue to receive the best possible treatments and health outcomes, has provided challenges for all staff involved in research, including clinical trials. Yet, as this annual report on our research activities demonstrates, our continued high-volume of work and ability to meet the expectations of our operational research plans is testament to the ongoing hard work and commitment of staff, not least of all Dr Katherine Bolton and her team in the District's Research Office.

Our year ended with an extensive consultation process to inform the CCLHD Strategic Research Plan 2022 – 2026. It was heartening to see the enthusiasm and energy for the District's research future from both internal and external stakeholders who provided valuable insights and input. In essence, our responsibility going forward is to capitalise on the significant investments that have been made in our research infrastructure over the past 5 years to create a truly enabling environment that allows for growth in research leadership, the development of vibrant research partnerships, and new mechanisms to involve our community in research.

The ultimate aim is to support the rapid uptake of research so that it can directly and positively impact on the care experiences and outcomes of the Central Coast community and ensure safe and sustainable health services for all. I am looking forward to supporting and realising that ambition in the coming years.

Professor Nick Goodwin Director of Research

Timeline of Key Events

July 2020	An Action Plan was developed for finalising the CCLHD Researcher Pathway to provide guidance and support for CCLHD health professionals to progress in developing competencies related to research use and research generation
August 2020	Stakeholder workshops developed priorities for research funded through the \$300,000 Medical Research Future Fund (MRFF) grant Better Care at the end of life for the Central Coast Community
September 2020	Health Professionals Research Education Program session held in partnership with University of Newcastle and Hunter New England Local Health District (on "Economic Evaluation") via online delivery; also held in November ("Consumer Engagement in Research"), March ("Developing Grant Applications") and June 2021 ("Clinical Trials – National, State and Local Perspectives")
October 2020	NSW Regionals Health Partner's (NSWRHP) embedded Economist (eE) began working with 5 teams at the District with their ongoing projects to support decision-making, logic modelling, impact assessments and economic evaluation
October 2020	Development of the CCLHD Strategic Research Plan 2022-2026 commenced with a governance group from the Board Research Committee developing an outline of the Plan with draft vision, purpose and principles
December 2020	First NSWRHP's Clinical Trials Community of Practice monthly meeting held – now has 148 members from CCLHD, HNELHD, MNCLHD, Calvary Mater Newcastle and HMRI
January 2021	The CCLHD commissioned three translational research projects including an examination of the end-of-life care journey for people with dementia and an investigation into people's use and experience of emergency departments in the last year of life on the Central Coast
February 2021	Consultation began across the District for developing the CCLHD Strategic Research Plan 2022-2026, followed by external consultation, with the Plan being launched in December 2021
February 2021	Applications open for the District's third year of the 'Caring for our Future' Research Grant Program with over \$100,000 available (up to \$20,000 per project); closed April 2021 and awarded in September 2021
March 2021	The CCLHD Researcher Pathway for Health Professionals document and Professional Development tool were finalised and published on the Research Office intranet page for use by CCLHD staff members interested in advancing their research skills and knowledge
June 2021	Opening of the Central Coast Clinical School and Research Institute (CCCSRI); relocation of the CCLHD Research Office into the Central Coast Research Institute (Level 10, Building A)
June 2021	Cancer Institute NSW awards \$7 million to NSW Regional Health Partners for Cancer Research and Capacity Building to the benefit of Central Coast LHD and its partners

Key Research Statistics

704	Total active projects currently under management by CCLHD Research Office
81	New research project applications received (21% decrease)
55	New quality improvement applications received (4% decrease)
589	Total subscribers to the CCLHD Research e-mail list
188	Number of participants at the Health Professionals Research Education Program education sessions held in September and November 2020
120	Number of participants at the Health Professionals Research Education Program education session via remote access (Zoom) in March and June 2021
230	Attendees at the 5 th Australian Nursing and Midwifery Conference, Newcastle Exhibition and Convention Centre (co-hosted by CCLHD)
15	Presentations by CCLHD nurses at the 5 th Australian Nursing and Midwifery Conference
123	New publications by CCLHD staff listed in the CARE Repository
910	Total publications by CCLHD staff listed in the CARE Repository
\$1.6m	Total annual research income

Overview of Research Indicators

Research Plan

The implementation of the CCLHD Research Plan 2017-2021 continued throughout 2020 and 2021, focusing on the four key themes:

1. Research Leadership

The development of a leadership structure that supports research direction and governance.

2. Research Infrastructure

The establishment of a centre for research excellence.

3. Research Enrichment

The provision of resources and training to maximise research success and translation.

4. Research Collaboration

The fostering of key partnerships to grow research funding and capabilities.

Research Leadership & Infrastructure

A significant milestone for our District in relation to Research Infrastructure has been the opening of the Central Coast Clinical School and Research Institute (CCCSRI) in the new Health and Wellbeing Precinct at Gosford Hospital (Building A), and relocation of the CCLHD Research Office into the Central Coast Research Institute (CCRI) in June 2021. The space in the CCRI and Research Office will enable growth and development of research activities and support for the District. Professor Nick Goodwin has continued to lead the development of the CCRI as the Research Director for CCLHD and as the inaugural Director of Research for the CCRI, a position jointly funded and governed by CCLHD and the University of Newcastle.

To provide further support and leadership for our researchers and opportunities for collaborations, the Honorary Conjoint Scholars Program has further expanded. Following the appointment of our inaugural scholars, Professor Brett

Mitchell and Dr Robyn Rosina, in 2020, a new Scholar from the University of Newcastle's School of Nursing & Midwifery, Associate Professor Yeun Sim (Sarah) Jeong, was appointed in May 2021. As a Registered Nurse and Research Academic, Professor Jeong has a wealth of knowledge and experience, and has been working in collaboration with the District for over 10 years.

Development of the draft Strategic Research Plan 2022-2026 began in early 2021 with several workshops held for consultation with District staff, including clinical trial stakeholders. Feedback was received by the Research Office on the draft Plan via these face-to-face and online workshops, through a survey and by email correspondence. The draft Plan was then further developed and circulated to external stakeholders. The development of this Plan continues on schedule for completion by December 2021.

Research Enrichment & Collaboration

Research Collaboration continued with the Research Office and the Research Advantage team at the University of Newcastle (UON) and Hunter New England Health District (HNELHD) delivering further Health Professionals Research Education Program (HPREP) online sessions (across the three organisations). The HPREP session held in September 2020 focused on economic evaluations. The next session was held in November 2020 and involved presentations about consumer and community engagement in research. The third HPREP session was held in March 2021 and focused on developing grant applications. All sessions were recorded and made available on the University of Newcastle website.

The Research Office was able to continue to grow Research Enrichment and foster *Research Collaboration* through partnership with the NSW Regional Health Partners (NSWRHP) Centre for Innovation in Regional Health (CIRH). CCLHD was awarded funding from the Medical Research Future Funds (MRFF) Rapid Applied Research Translation (RART) Grant scheme for a Palliative Care project through NSWRHP. The District appointed Dr Zoi Triandafilidis (Research Project Manager) and Dr Cassie Curryer (Research Project Support Officer), to support our District's MRFF-funded Palliative Care Projects to investigate the end of life journey for people with dementia and the experience of people in emergency departments at the end of life.

Research Collaboration also continued with the NSWRHP through the 'embedded Economist' project, with CCLHD Director of Research, Professor Nick Goodwin, as the Principal Investigator for the District. This project involved hosting a health economist from the Hunter Medical Research Institute

on-site between October 2020 and February 2021 for one to two days per week to assist staff with economic analyses for their research projects and service planning initiatives that were determined through an EOI process, with priorities endorsed by CCLHD Executives. Also a Community of Practice commenced in September 2020 for a year and a university course on health economics was made available to staff.

Research Collaboration has been demonstrated through attendance of CCLHD Research Office staff at the NSWRHP

Clinical Trials Community of Practice which involves monthly meetings since February 2021 with informative presentations and sharing of ideas between staff from HMRI, HNELHD and MNCLHD. Topics have included clinical trial quality management systems, budgeting, regional clinical trial units, monitoring of trials, and the role of pharmacy in supporting research and clinical trials. The Research Manager is also a member of a NSW Clinical Trials Community of Practice organised by the Ministry of Health (clinicaltrialsNSW) since June 2020 with bi-monthly meetings.

Research Governance

The Operational Research Committee and Board Research Committee met on a two monthly basis with a focus on the implementation of the Research Governance Framework and implementation of the 2017-2021 Research Plan.

The key functions of the Operational Research Committee are to provide research support and mentorship to CCLHD staff and researchers and to operationalise the Research Plan 2017-2021. Members of the Committee were instrumental in providing mentorship to applicants of Research and Quality Improvement projects authorised throughout the year.

The key functions of the Board Research Committee (BRC) are to oversee the development of research strategy, monitor research governance and mitigate research risks for CCLHD. The Committee monitors research activity, governance reports, research finances and human resources. It oversees the implementation of the Research Plan and reports on key research indictors to the CCLHD Board, with a continued focus on the establishment of the Central Coast Research Institute.

The Research Monitoring Program continued in line with the requirements of the <u>Australian Code for the Responsible Conduct of Research (2018)</u>, <u>National Statement on Ethical Conduct in Research (2007; updated 2018)</u> and CCLHD Research Governance Framework. CCLHD-authorised research projects are reviewed to ensure that the research being undertaken conforms with approval conditions from the Human Research Ethics Committee (HREC) and in accordance with NSW Privacy legislation and the relevant policies, procedures and guidelines. A second Research Governance Officer was recruited to the Research Office in October 2020 to conduct these research monitoring visits, assist with processing amendments for authorised projects, and prepare for the implementation of the National Clinical Trials Governance Framework at the District.

Research Infrastructure Fee

From 1 July 2021, a 20% research infrastructure fee was reintroduced at the District to be charged on all new commercially sponsored clinical trials and commercially contracted research grants to be hosted at CCLHD.

The purpose of this research infrastructure fee is to assist with:

- Enhancing best practice in clinical trial management across the District, including maintenance of a Clinical Trials Management System (CTMS) to be implemented by NSW Health;
- Covering the costs of administration of commercial clinical trials and research projects by the CCLHD Research Office, including human resources;
- Building the capacity of the CCLHD Research Office to ensure an efficient and professional service, specifically in:
 - Assisting with research ethics applications, grant writing and budgets/ finances;
 - Implementing the new National Clinical Trials Governance Framework across the District in preparation for inclusion in hospital accreditation;

- Enabling effective monitoring and audit of research projects; and
- Ensuring the CCLHD Research Office meets or exceeds the KPIs established by NSW Health with the CCLHD
- Contributing to the development of a centre of research excellence by supporting growth in research skills and capacity for clinicians and academics on the Central Coast, including direct access to statistical advice, research education/ training and research support services.

The research infrastructure fee is to be included in all commercial research contracts and shall be levied immediately on receipt of payment from the commercial funder (for applicable commercial research grants) or on milestones for per patient payments (for commercial clinical trials). For commercial clinical trials, the 20% infrastructure fee is to be split 50:50 between the trial Department and the Research Office so that departments are able to utilise half of the infrastructure fee to support their ongoing work.

Research Management

Prior to the commencement of a research project at a CCLHD site, researchers are required to submit a Site Specific Assessment (SSA) or Access Request (AR) to the Research Office for authorisation of the project, following ethics approval by a Human Research Ethics Committee (HREC). Access Requests are for projects which require access to local participants/ staff, tissue or data but which are being conducted offsite by another organisation. Alternatively, for a low/negligible risk (LNR) research project that has no ethical concerns and is only being conducted at the District, it can be submitted to the CCLHD Research Office for review and authorisation as an HREC-Exempt LNR research project.

During the 2020-2021 financial year, the Research Office received 81 new research applications (**Figure 1**) from a number of departments across the District's various clinical and support services (**Figure 8**). This was a decrease of 21% on the number of new research applications received in 2019-2020 (with 103 projects), but 29% more than the number of projects received in the previous reporting period, 2018-2019, with 63 (**Figure 5**).

Of the 81 new research applications (Figure 1):

- 49 were Human Research Ethics Application (HREA) SSAs;
- 19 were Human Research Ethics Committee (HREC)-Exempt Low/Negligible Risk (LNR) Research applications; and
- 13 were Access Requests.

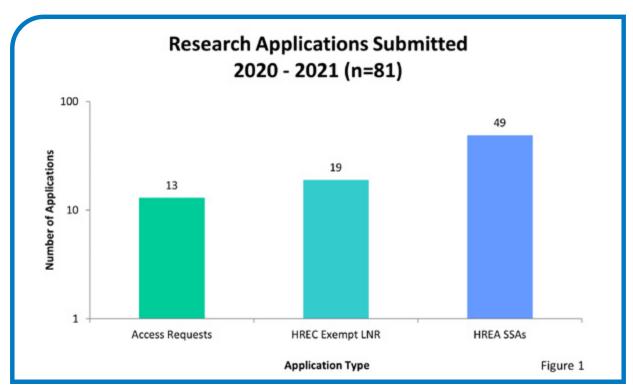
The 49 HREA SSAs included 13 Clinical Drug Trials (CDT), which were funded as follows (**Figure 2**):

- 9 commercially sponsored clinical drug trials; and
- 4 collaborative group (investigator-initiated) clinical drug trials.

The Research Office also approved 55 Quality Improvement (QI) projects in 2020-2021 **(Figure 6)**. These were applications with an intent to publish and hence requiring confirmation from the Research Office that they were Quality Improvement and not research projects for journal publication criteria, or were projects which raised ethical issues that required review by a certified NHMRC Human Research Ethics Committee (HREC) to confirm they could proceed as Quality Improvement applications.

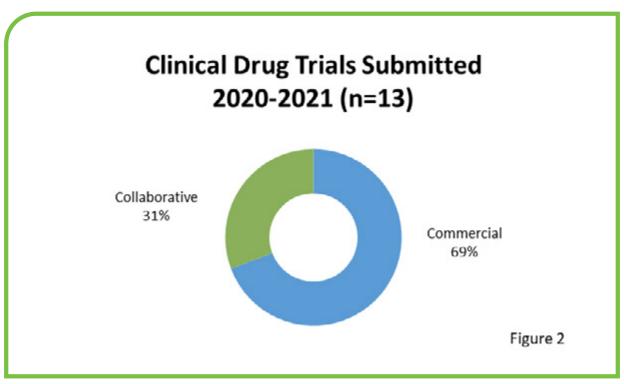
Two (2) Non-Research Activity (NRA) applications were approved for case series and case reports, where there was intent to publish.

The total number of active applications being managed by the Research Office as at 30 June 2021 was 704, consisting of 379 research projects, 295 QI projects and 30 NRA/ case reports.



Access Requests HREC Exempt LNR HREA SSA

- Access Requests
- Human Research Ethics Committee Exempt Low/Negligible Risk Research
- Human Research Ethics Application (HREA) Site Specific Assessments (SSAs)



Collaborative Commercial

- Collaborative Group Funded (investigator-initiated)
- Commercially Sponsored



Research Activity

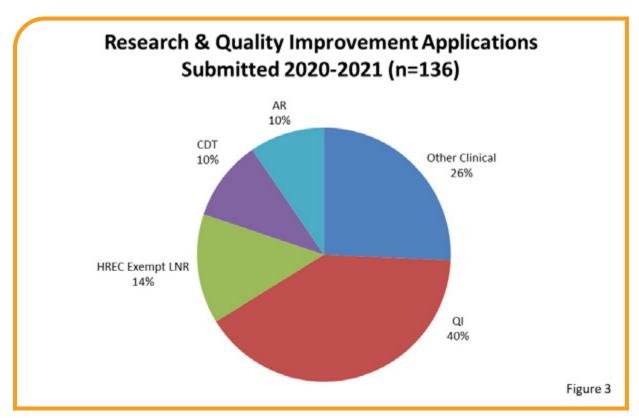
The following diagrams (**Figures 4-7**) reflect the distribution of research applications submitted to CCLHD over the past 8 years, since the establishment of the Research Office. The 2014-2015 reporting period (**Figure 5**) was an anomaly, with 193 new applications recorded. This was due to 93 applications being transferred for ongoing management from Northern Sydney Local Health District. These projects were re-reviewed and re-approved by the CCLHD Research Office.

The total distribution of all applications received between 2013 and 2021 **(Figure 4)** shows 36% of total applications submitted were categorised as Quality Improvement, 30% Other Clinical Research Projects (not drug/device trials), 11% Low and Negligible Risk Research (LNR), 13% Clinical Drug Trials, 4% Access Requests, 6% Human Research Ethics Committee (HREC) Exempt LNR research and 0.5% Clinical Device Trials.

The number of Quality Improvement (QI) applications submitted to the Research Office has remained consistent across the past 7 reporting periods, ranging from 45 to 72 **(Figure 6)** with the Research Office receiving 55 new QI applications in the current reporting period (a 4% decrease from the previous year). The internal review of QI applications is undertaken by the CCLHD Research Office in line with the NH&MRC's, National Statement on Ethical Conduct in Research (2018).

The number of Clinical Drug Trials has decreased by 13% from last year, with 13 new Clinical Drug Trials received and 69% of these being commercially sponsored (**Figures 2 and 7**).

Due to the disestablishment of the Teaching and Research Unit (TRU) as the Central Coast Clinical School & Research Institute was developed, the ongoing activities allocated to the TRU **(Figure 8)** will be re-allocated to the relevant service or department for future governance and reporting purposes.

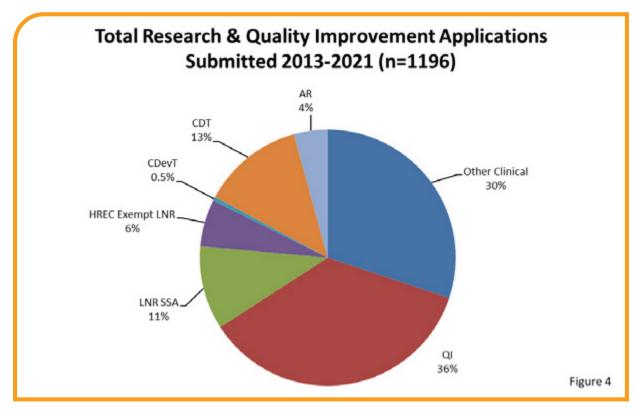


AR CDT

HREC Exempt LNR

Other Clinical

- Access Requests
- Clinical Drug Trials
- Human Research Ethics Committee Exempt Low/Negligible Risk Research
- Other Clinical Research Projects
- Quality Improvement Projects



AR CDT - Access Requests

CDayT

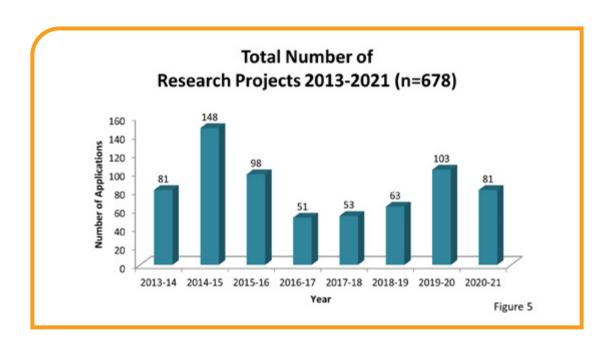
- Clinical Drug Trials

CDevT

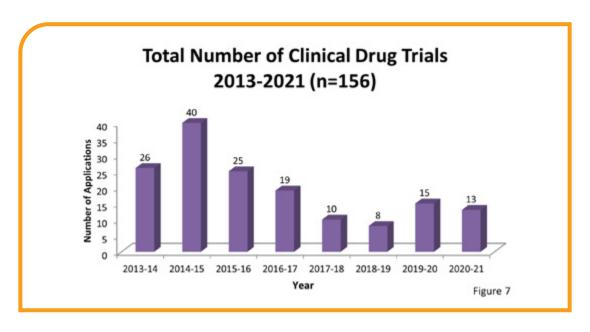
- Clinical Device Trial

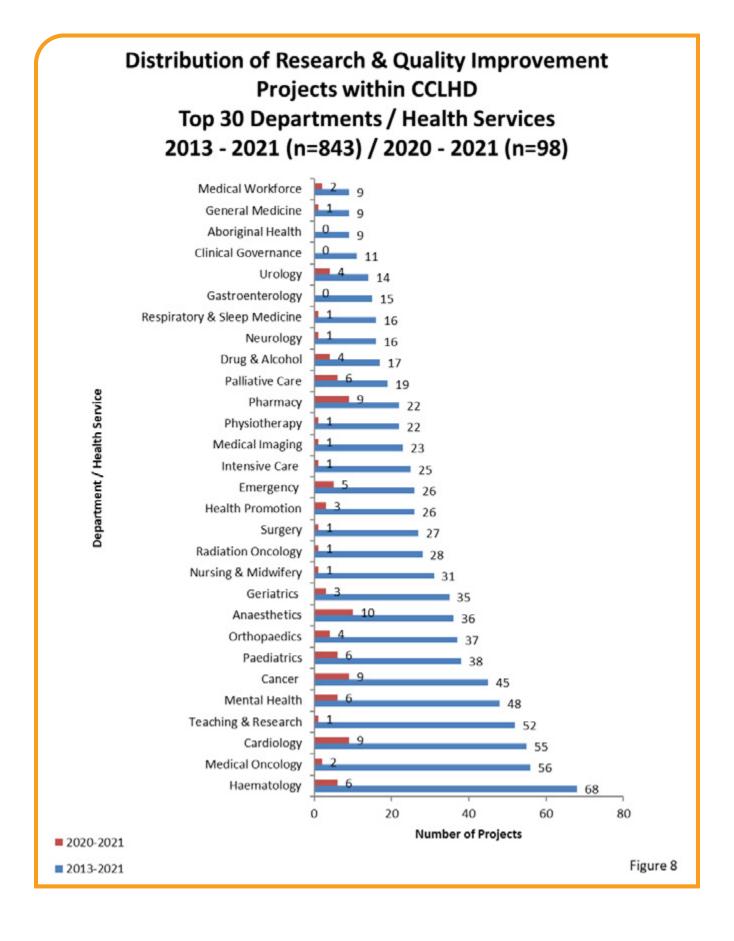
HREC Exempt LNR

- Human Research Ethics Committee Exempt Low/Negligible Risk Research
- LNR SSA
- Low/Negligible Risk Research Site Specific ApplicationOther Clinical Research Projects
- Other Clinical
- Quality Improvement Projects









Research Finance

In the financial year 2020-2021, the total income for research was \$1,635,423 and the total expenditure was \$2,076,541*. The income for research grants is set out in the funding success categories in the next section.

The research expenditure included:

- \$353,696 for the Research Office of 3.0 FTE. Revenue generated by the office was \$47,230.
- \$180,659 in Government Research Grants and \$17,994 in Non-Government Grants.
- **\$1,499,845** in Clinical Trial Cost Centres to conduct commercially sponsored research, including funding for 18.6 FTE staff from 6 clinical departments.
- **\$24,347** from Special Purpose and Trust Research accounts for the conduct of research projects where monies had been donated or grants/scholarships received specifically for the purpose of funding projects.

*The reason expenditure is higher than revenue is that the Research Office, a number of Research Grants and Clinical Trials, have been allocated a budget from the CCLHD's total expenditure budget. This expenditure budget is funded from the Ministry of Health (MoH) subsidy payment to the CCLHD as a whole amount and then allocated out as budget (not revenue).



CCLHD Researchers' Funding Success

Funding Awarded in a Previous Financial Year and Expended in the 2020 - 2021 Financial Year

NSW Health Round 2, Translational Research Grant Scheme (TRGS) - \$919,806

CCLHD Year 1 (2017 - 2018 Financial Year) Expenditure - \$303,795

CCLHD Year 2 (2018 - 2019 Financial Year) Expenditure - \$182,761

CCLHD Year 3 (2019 - 2020 Financial Year) Expenditure - \$366,246

CCLHD Year 4 (2020 - 2021 Financial Year) Expenditure - \$67,004

Project title: Thirsty? Choose Water! Behavioural Interventions and Water Stations in secondary schools.

Chief Investigator: Niki Kajons - Health Promotion

Site Investigators: Dr Peter Lewis and Colleen Gately - Public Health, Justine Gowland-Ella, Jane Whatnall, Wendy Harris and Samantha Batchelor - Health Promotion, Dr Michael David - University of Newcastle

Summary: Childhood overweight and obesity is a significant public health issue. A key contributing factor is sugar sweetened beverages (SSBs) consumption. Promoting increased water consumption and provision of chilled water stations can reduce SSBs consumption. This project is assessing whether a behavioural intervention and chilled water stations, alone or combined, increase water consumption and effect changes in students' knowledge, attitudes or consumption of SSBs in year 7 secondary school students.

Medical Research Future Fund (MRFF) Rapid Applied Research Translation (RART) Grant, NSW Regional Health Partners - \$352,350

CCLHD Year 1 (2019 - 2020 Financial Year) Expenditure - \$239,256

CCLHD Year 2 (2020 - 2021 Financial Year) Expenditure - \$75,310

Project title: Thirsty? Choose Water! Behavioural Interventions and Water Stations in secondary schools.

Chief Investigator: Niki Kajons - Health Promotion

Site Investigators: Dr Peter Lewis and Colleen Gately - Public Health, Justine Gowland-Ella, Jane Whatnall, Wendy Harris and

Samantha Batchelor – Health Promotion, Dr Michael David -University of Newcastle

Summary: This project, initially funded through NSW Health TRGS, received additional funding from MRFF to expand the program into rural high schools in the Hunter New England LHD and Mid North Coast LHD. The project was expanded to assess the ability to deliver the program effectively in rural settings and to examine the behavioural outcomes in rural students, compared to the initial regional schools. The project is assessing the scalability of the intervention in different settings.

Medical Research Future Fund (MRFF) Rapid Applied Research Translation (RART) Grant – Palliative Care, NSW Regional Health Partners -\$350,000

CCLHD Year 1 (2020 - 2021 Financial Year) Expenditure - \$24,015

Project title: Enabling Better Care at the End of Life for the Central Coast Community

Chief Investigator: Professor Nick Goodwin - CCRI

Summary: This research seeks to support clinicians and managers working in palliative and end of life care the opportunity to grow their research knowledge and skills. It seeks to support the continued development of the CCLHD's long-term strategy for the implementation of palliative and end of life care to the Central Coast community. The approach included a series of skills building workshops followed by a priority-driven research phase in which 3 separate projects have been developed. The research is in collaboration with the University of Newcastle and HMRI.

Innovations in Cancer Control Grants, Cancer Institute - \$58,475

CCLHD Year 1 (2019 - 2020 Financial Year) Expenditure - \$2,417

CCLHD Year 2 (2020 - 2021 Financial Year) Expenditure - \$4,331

Project title: Clinical Variation Rectal Cancer

Chief Investigator: Melanie Cook / Matt Sproats - Cancer Services

Summary: The project is investigating the proportion of rectal cancer patients who are referred for consideration of neo adjuvant therapy within the Central Coast Local Health District (CCLHD), as well as reviewing current practice guidelines and the role of the colorectal Multi-Disciplinary Team (MDT) meeting in the management of rectal cancer.

CCLHD Caring for Our Future Research Grant 2018 - \$18,546

CCLHD Year 1 (2019 - 2020 Financial Year) Expenditure - \$2.656

CCLHD Year 2 (2020 - 2021 Financial Year) Expenditure - \$11,716

Project title: Family SAS - Coaching families to support their child's participation using Sensory Activity Schedules

Chief Investigators: Bridget O'Sullivan - Child and Family Health, Prof. Shelly Lane - University of Newcastle

Associate Investigators: Ms Sarah Jenkins, Ms Sharelle Taylor, Karyn Donaldson, Natalie McSwan, Natalie Hart, Natalie Dibley and Leanne Larsson – Occupational Therapy

Summary: The aim of the research was to assess the effectiveness of sensory strategies whilst utilising this parent coaching, home based treatment model. The therapist will collaborate with the consumer to assess their child's functioning, identify their daily routine and client centred functional goals. Consumers will then be provided with the knowledge that empowers them to implement sensory strategies into their daily routine. Multiple environments (for example, home and school) will be considered when supporting a consumer to implement a sensory activity schedule. This will also reduce the amount of face to face treatment time and enable therapists to see a larger group of consumers therefore reducing the waiting time to begin treatment.

CCLHD Caring for our Future Research Grant 2019 - \$20,000

CCLHD Year 1 (2020 - 2021 Financial Year) Expenditure - \$5,520

Project title: Women's Health Project: Bringing Family Planning and Drug and Alcohol Services Together on the Central Coast

Chief Investigators: A/Prof Bridin Murnion, Dr Vicki Chase - Drug and Alcohol Service

Summary: The project is evaluating the effectiveness of providing contraception services within a Drug and Alcohol Service.

CCLHD Caring for our Future Research Grant 2019 - \$16,060

CCLHD Year 1 (2019 - 2020 Financial Year) Expenditure - \$10.665

CCLHD Year 2 (2020 - 2021 Financial Year) Expenditure - \$758

Project title: Can the performing arts stimulate culture change in the healthcare workplace?

Chief Investigators: Dr M Ryall, Dr B Short - General Medicine

Summary: The objective of this project was to explore the role of verbatim theatre as a tool for critical analysis of beliefs, attitudes and values around workplace culture (including bullying and harassment) and possibilities for change.

Spinifex Network Rapid Review, NSW Regional Health Partners - \$10,000

CCLHD Year 1 (2020 - 2021 Financial Year) Expenditure - \$10,000

Project title: Health & Care Responses to Individuals and Communities Affected by Natural Disasters

Chief Investigator: Professor Nick Goodwin - CCRI

Summary: Led by the CCLHD, this research has sought to examine the efficacy of approaches to support individuals and communities in rural settings to cope in the face of natural disasters such as bushfire, flood and drought. The research culminated in a peer-reviewed article published in the Medical Journal of Australia in December 2020.

Sax Institute Evidence Check - \$30,000

Project title: Integrated approaches for domestic and family violence, mental health issues and alcohol and other drug misuse

Chief Investigator: Professor Deborah Loxton - University of Newcastle

Investigator: Professor Nick Goodwin - CCRI

Summary: The CCLHD Library and the CCRI Director worked to support this rapid review of the evidence and submitted a report to the Sax Institute in June 2020. The research outlined the need for a more holistic response to individuals with complex needs through improved coordination of care services.

Funding Awarded in a Previous Financial Year for expenditure in the 2021 - 2022 Financial Year

Innovations in Cancer Control Grants, Cancer Institute - \$61,475

CCLHD Year 1 (2019-2020 Financial Year) Expenditure - \$1,934

CCLHD Year 2 (2020-2021 Financial Year) Expenditure - \$0 **Project title:** Head and Neck Cancer Survivorship on the Central Coast

Chief Investigator: Craig Kukard - Cancer Services

Summary: This project is addressing the management needs of Central Coast residents who are survivors of head and neck cancer by formalising post treatment care pathways through electronic documentation and making it accessible to all relevant providers.

Allied Health RICH Program - \$8,000

Project title: Does duration and intensity of physiotherapy input influence outcomes for community based older clients with cognitive impairment who have suffered a fall resulting in a fracture and requirement for surgery

Chief Investigator: Nicholas Davis - Physiotherapy

Associate Investigators: Coralie English and Dr Michael David - University of Newcastle

Summary: Transitional Aged Care Program (TACP) physiotherapists assess and review all clients commencing with TACP and determine appropriate individualised physiotherapy treatment plans. The duration and intensity of intervention is at the discretion of individual therapists. There is currently limited insight into whether the current levels of duration/intensity of delivering physio intervention are in line with best practice/evidence. This study aimed to identify trends that impact outcomes and identify possible barriers to delivering optimal therapy.

CCLHD Caring for Our Future Research Grant 2018 - \$20,000

Project title: Pets are family too: Integrating the human-animal bond into patient-centred care

Chief Investigators: Cheryl Travers – Public Health Unit, Tia Covi – Carer Support, Andrew Dixon - Public Health Unit, Tiyana Gostelow – Mental Health Unit, Ann-Margaret Withers - RSPCA

Associate Investigators: Dr Thaïs Miles – Public Health Unit, Sandra Ma – RSPCA Community, Mathew French – RSPCA, Dr Kate Senior – University of Wollongong, Dr Kersti Seksel - Sydney Animal Behaviour Service

Summary: This project trialled a process to integrate the humananimal bond into patient-centred care for patients who are in institutional care for an extended length of stay. This involved identifying the needs of pet-owning patients in relation to their pets, identifying carers, and trialling ways to meet the needs of patients and facilitating personal pet visits. The process included pet visits to the hospital, helping with pet care plans, and education sessions for staff regarding the human-animal bond.

CCLHD Caring for Our Future Research Grant 2018 - \$20,000

Project title: Chronic Pain After ICU: An Investigation of the Incidence, Risk Factors and Burden to Survivors

Chief Investigators: Dr Ben Moran – Intensive Care Unit, Prof. John Myburgh AO – The George Institute

Associate Investigators: Prof. David Scott - University of Melbourne, Dr Atul Gaur - Intensive Care Unit

Summary: The study aims to determine the incidence of chronic pain to examine the potentially modifiable risk factors for developing chronic pain. This study will enable the development of therapeutic strategies to target modifiable risk factors that may be utilised to decrease the incidence of chronic pain in ICU survivors.

CCLHD Caring for our Future Research Grant 2019 - \$18,468

Project title: Integrating a Clinical Pharmacy Review into a Diabetes Outpatient Clinic to improve Medication Management

Chief Investigators: Mrs L Robson, Ms J Hagan - Pharmacy

Summary: The project is evaluating the impact of the role of a Clinical Pharmacist in a High Risk Foot Clinic.

CCLHD Caring for our Future Research Grant 2019 - \$20,000

Project title: CAPTURE Change: Supplying a visual reference to patient of their own coronary artery disease

Chief Investigators: Dr J Mooney - Cardiology Department

Summary: The project is assessing what effect a print out of the patient's coronary artery from their own Coronary Computed Tomography Angiogram scan may have on adherence to treatment.

CCLHD Caring for our Future Research Grant 2019 - \$12,000

CCLHD Caring for our Future Emerging Researcher Grant 2019 - \$4,000

Project title: Evaluation of Clinical Procedure Videos

Chief Investigators: Ms J Colgan – Critical Care, Cardiac Services, Ms K Miles - Education and Training Services

Summary: This project is assessing if clinical procedure videos increase self-efficacy among acute cardiology care nurses who assist with low volume high risk procedures, compared to traditional paper based procedures.



Research Highlights

Research Education & Training Program

The Research Education & Training program provides research support, education and resources to help promote research and meet the different needs of well-established researchers and new emerging researchers within CCLHD. The Research Education & Training program provides opportunities to attend workshops, connect with mentors, find collaborators and network and discuss their projects with a broader audience. The partnerships between the Research Office, Library Services, Nursing and Midwifery Directorate and University partners enabled the provision of the following workshops and master classes during 2020-21 for CCLHD staff:

- How to do a Literature Review
- QARS Quality Auditing Reporting System

• Endnote

- Improve your Quality Improvement
- Navigating the Ethics & Governance Process Endnote

Due to COVID-19 restrictions, whenever face-to-face sessions were cancelled the above-mentioned workshops continued online in 2020/2021.

The Research Office facilitated weekly pre-submission meetings with applicants for research and quality improvement projects and to mentor staff through the ethics application process; as well as attending Department/ Committee meetings to give presentations on research and quality improvement to advise how staff could get involved in a project.

The Research Office was supported by members of the Operational Research Committee to identify staff needs and provide targeted sessions during the year as required.

CCLHD Researcher Pathway for Health Professionals

The CCLHD Researcher Pathway for Health Professionals was designed by a Working Party of the Operational Research Committee to determine a core set of competencies (knowledge, skills and attitudes) that contribute to a culture of health services research, and which health professionals hold at differing stages of their careers.

The Researcher Pathway presents research competencies as a continuum of stages illustrating how health professionals move from one level of engagement in research to another showing evidence of professional development in this area. The Pathway includes an initial research competency assessment tool that permits health professionals to place themselves on the Pathway and suggests educational and experiential activities that support research competency development.

Endorsed by the Operational and Board Research Committees in 2020/2021, the Researcher Pathway for Health Professionals is available on the Research Office intranet together with introductory information about what the researcher pathway is and how to use it.



CCLHD Archive and Research E-library (CARE)

The CCLHD Archive and Research E-library (CARE) is an online collection of historical material and published research articles from the CCLHD. The historical archive holds material such as annual reports, photos, memorabilia and newspaper clippings illustrating the history of public health services on the Central Coast. The published research articles are by former and current CCLHD staff, and staff are encouraged to submit their publications to this repository via cclhd-libraries@health.nsw.gov.au

By 30 June 2021, the Research Hub contained records for approximately 910 published research articles (an increase of 16% since the last reporting period). Full text is available where publisher terms and conditions allow, or can be obtained on request from the CCLHD Library. A list of the publications added to CARE over this reporting period is included at the end of this report.

CARE is available to staff and members of the community to browse at: http://elibrary.cclhd.health.nsw.gov.au/. Items added to CARE are also added to the National Library of Australia's TROVE database (https://trove.nla.gov.au/), making them even more widely discoverable. When adding research publications to CARE, Library staff take the opportunity to encourage CCLHD researchers to apply for and use an ORCID digital identifier, a

unique identifier that integrates into research workflows including grant applications and submission of articles for publication in scholarly journals. Staff are also encouraged to follow the CCLHD policy on correct citation of CCLHD affiliation outlined in the procedure PR2016_023 - Research Documentation Developed for External Publication.

Medical Research Week

The usual activities were postponed due to COVID-19 pandemic restrictions.

2020 CCLHD Research and Innovation Symposium

The usual activities were postponed due to COVID-19 pandemic restrictions.

5th Australian Nursing and Midwifery Conference: Riding the Waves of Change – Forging the Future: Nursing and Midwifery quality, research and education

In May 2021, CCLHD co-hosted the 5th Australian Nursing and Midwifery Conference in partnership with Hunter New England and Mid North Coast Local Health Districts and the University of Newcastle. Held at the Newcastle Exhibition and Convention Centre, the conference provided a forum for Nursing and Midwifery clinicians, researchers and educators from Australia and overseas, to share knowledge and celebrate experiences of innovation. The conference was a resounding success with

230 delegates from across five states in attendance. Our CCLHD nurses presented six oral and nine poster presentations highlighting a range of research and innovation projects. CCLHD sponsored one of the four keynote speakers: Professor Brian Dolan OBE, Director of Health Service 360 UK and Visiting Professor at CCLHD, renowned for his services to nursing and emergency care and founder of the PJ Paralysis movement.



Pictured (L-R): CCLHD nurse presenters at the conference: Carol Merriman, Jackie Colgan, Rhonda O'Neil, Cheryl Baldwin, Jennie Lamb, Jacqui Jagger, Leah Snape, Martine Ardagh

CCLHD Caring for the Coast Awards 2020 - Excellence in Research Award

In July 2020, the Chief Executive announced the winners of the inaugural Caring for the Coast Awards.

Winner of the Excellence in Research Award:

No CAUTI project: Reducing inappropriate catheterisation to prevent Catheter Associated Urinary Tract Infections (CAUTI).

Summary: Catheter-associated urinary tract infections (CAUTIs) are the most common health care associated infection and one of the most preventable. The most effective CAUTI prevention strategies are indwelling urinary catheter (IDC) avoidance and early removal.

The "No CAUTI" research project was conducted in partnership with Hunter New England Local Health District to introduce a new model of care using a bundled catheter care (BCC) intervention. The BCC included an integrated set of evidence-based practices to assist clinicians in making better informed decisions related to IDC insertion, care and removal practices within the acute care setting.

The findings demonstrated an overall reduction in IDC usage rates from 12 per cent to 10 per cent. With the conclusion of the project, a sustainability plan was implemented to embed the model of care at the District.

In June 2019, a survey of all adult inpatients across Gosford and Wyong Hospitals showed sustained reduction in IDC usage with the overall prevalence rate at 9.5 per cent. Reducing the number of IDCs, reduces CAUTIs and improves patient safety. By working in partnership with patients and the multidisciplinary team, the ongoing impact of the No CAUTI Sustainability Plan will help minimise IDC use and reduce the risk of CAUTIs thereby reducing harm and achieving good health outcomes for our patients. The project is a significant contribution to nursing knowledge and infection prevention literature.



Team: (pictured R to L) Dr Jennie King CNC Research, Alison Harris CNC Project Officer, Nursing and Midwifery Directorate; Jemma Archbold and Julie Brooks CNC Urology, Surgical Services; and Kirsty Graham, Nurse Manager Infection Prevention and Control

Runners-up for the Excellence in Research Award:

 The effectiveness of the eutectic mixture of local anaesthetics (EMLA®) as a primary dressing on painful chronic leg ulcers.

Team: Dr Anne Purcell, Nurses practitioner Wound Management Central Coast Community Nursing Service; Dr Jennie King, Nursing and Midwifery Directorate; Community Nurses; Professors Andrea Marshall and Wendy Moyle, Griffith University; and Associate Professor Tom Buckley, University of Sydney.

Thirsty? Choose Water.

Team: Niki Kajons, Health Promotion; Dr Peter Lewis and Colleen Gately CNC Immunisation, Public Health; Justine Gowland-Ella, Jane Whatnall, Wendy Harris and Samantha Batchelor, Health Promotion, Dr Michael David - University of Newcastle.

Health Promotions Updates

The Health Promotion Service continued to have a strong focus on research and evaluation throughout 2020/21. A number of key research projects continued, including *Thirsty? Choose Water!*, Smoking Cessation, Alcohol Sales To Minors and Activate Your Space.



Thirsty? Choose Water! commenced as a Translational Research Grant and subsequently received funding through the Medical Research Future Funding scheme. The study, evaluating a whole-of-school approach to encouraging secondary school students to choose water as their main drink, instead of sugary drinks, has now been implemented across five local health districts and 85 secondary schools. The intervention includes activities in the classroom, installation of chilled water stations on site and promotions both within the school and to the wider community, including parents and carers. The intervention has been rigorously evaluated and demonstrated positive outcomes for student drink choice across metropolitan, regional and rural secondary schools. During 2020 a range of translation resources were developed to support schools more broadly to implement the intervention, with all resources readily available at www.choosewater.com.au.

Additionally, in 2021 a further phone audit and survey were conducted to determine any additional needs of schools in their efforts to support students to choose water. The <u>positive impacts</u> of the intervention were highlighted in a presentation at the Preventive Health Conference 2020, and a recent publication in the Health Promotion Journal of Australia outlines a descriptive analysis of the intervention. Further outcomes of the study as well as an economic evaluation are pending publication.





The service continues to be active in **promoting smoking cessation and smoke-free environments**. In 2020 the results of a smoking patrols study were published in Health Promotion Journal of Australia. This study highlighted that it is acceptable for staff to approach smokers on hospital grounds to provide information and assistance regarding the site being smoke-free. It was shown that this interaction could be conducted in a low-risk manner. This is one strategy that can continue to support the implementation of and compliance with smoke-free policy. Also published in June 2020 was a paper regarding the provision of a nicotine replacement therapy vending machine to support compliance with a smoke-free policy.

The service continues to conduct work to **address alcohol harm among young people**, particularly regarding their access to alcohol through packaged liquor outlets. Whilst the COVID-19 pandemic impacted the capacity to conduct alcohol sales to minors surveys, an economic evaluation considering the value of the current survey process against the potential of controlled purchase operations (should they be legislated for) was conducted. The outcomes of this are still pending, however, the service delivered a presentation on controlled purchase operations at the Preventive Health Conference 2020.

The Activate Your Space project continues to work to identify components of an effective collaborative place-based and strengths-based model of working with locationally disadvantaged communities to address health inequities

and poor health outcomes. The project is hoping to improve conditions and opportunities for good health, and ultimately the health of the residents, improve social cohesiveness and develop a transferable model to apply to other communities on the Central Coast in relation to need and/or opportunity.

Finally, during the COVID-19 pandemic the service worked tirelessly to find innovative ways to ensure that health promotion programs and interventions still reached their intended target audience, with a range of online resources developed. These were housed on the service's Refresh @ Home web page, designed to support the community through the challenges of COVID-19, and were distributed by a Refresh newsletter. These were outlined at the Preventive Health Conference 2020 in a presentation on Embracing a 'digital first' approach to health promotion.

Further information can be found at https://www.healthpromotion.com.au/

Embracing a digital-first approach to health promotion

Mitchell Gadd

Communications Manager, Health Promotion Service Central Coast Local Health District



Publications

Giles L, Bauer LA. Supporting visitor compliance with a smokefree policy at hospital using a nicotine replacement therapy vending machine. *Health Promot J Austr.* 2021;32(3):378-382. doi:10.1002/hpja.371

Giles, L, Bauer, L, Batchelor, S. Assessing the responses of smokers to requests to stop smoking on hospital grounds. *Health Promot J Austral.* 2021; 00: 1–10. doi: 10.1002/hpja.513

Gowland-Ella, J, Kajons, N, David, M, et al. Thirsty? Choose Water! Encouraging Secondary School Students to choose water over sugary drinks. A descriptive analysis of intervention components. *Health Promot J Austral.* 2021; 00: 1–14. doi: 10.1002/hpia.479



Research Leaders - New Honorary Conjoint Scholar

Associate Professor Yeun-Sim (Sarah) Jeong is a Registered Nurse and Research Academic at the School of Nursing & Midwifery, University of Newcastle. She is the Deputy Head of Research and the Master of Nursing Program Convenor. She has a strong clinical background having worked in various settings both in Korea and Australia including Cardiovascular, Medical, Surgical, Paediatric, Oncology, Neurological, Orthopaedic, and Gerontological nursing.

Associate Professor Jeong has established her research expertise in social, ethical, and political issues pertaining to care for older people, especially related to Advance Care Planning (ACP), Palliative Care, End-of-life care, Dementia care, and Healthy Ageing across lifespan. She is an invited member of the Australian Hartford Consortium for Gerontological Nursing Excellence (Aus-HCGNE) and has actively engaged in national dialogues by providing responses to the Aged Care Workforce Strategy Taskforce and the Royal Commission into Aged Care Quality and Safety. She is also invited to serve in the Expert Advisory Group by Australian College of Nursing. As an expert in Gerontological nursing, she has been providing oversight and strategic direction on the nursing response in relation to recommendations from the Royal Commission into Aged Care Quality and Safety.

Associate Professor Jeong has developed and sustained local, national and international multi-institutional partnerships. She led the Central Coast Research Education Partnership (CCREP) which was endorsed by a joint mutual agreement between the University of Newcastle (Ourimbah campus) and the Central Coast Local Health District (CCLHD) in 2010. Through this strong and sustained



partnership, she initiated and enhanced numerous teaching and research projects which were conducted with collaboration between the academic staff at Ourimbah and the clinicians at CCLHD. Associate Professor Jeong is involved in three CCLHD MRFF Palliative and End of Life Care projects supported by MRFF NSWRHP to enhance research capability in the School and Central Coast Research Institute, and is honoured to accept the CCLHD Honorary Conjoint Scholar position.



Honorary Conjoint Scholars - Annual Reports

In June 2020, Professor Brett Mitchell and Dr Robyn Rosina were appointed as the District's inaugural Honorary Conjoint Scholars. The two appointments are sponsored by the District Director of Nursing and Midwifery and endorsed by the District Director Quality, Strategy and Improvement on behalf of the Board Research Committee.



Professor Brett Mitchell is a Professor of Nursing, based at the Ourimbah campus of the University of Newcastle. He is an internationally recognised researcher in the area of infection prevention and control.

Professor Mitchell's recent research activities have included exploring the patients' experience of a portable isolation room,; patient perspectives of healthcare associated infection, reducing pressure injuries of patients with fractured neck of femurs, and the effect of COVID-19 on healthcare associated infections. Professor Mitchell has also been involved in supporting a volunteer taster program with a new graduate nurse from the University of Newcastle, employed by the CCLHD, and mentorship support for the Infection Prevention & Control (IPAC) team at the CCLHD.



Dr Robyn Rosina is a Lecturer and Research Academic at the School of Nursing and Midwifery, University of Newcastle.

Dr Rosina's recent activities have included working with a research team at CCLHD to explore what enables new graduate nurses to thrive rather than simply survive the first graduate year; and another project investigating how to reduce the number of children at school entry with unidentified development problems that could have benefitted from early intervention.

ClinicalRCB project: Research Capacity Building for Clinical Nurse and Midwife Consultants in Hunter New England, Central Coast and Mid North Coast Local Health Districts

Summary: Central Coast Local Health District has partnered with the School of Nursing and Midwifery University of Newcastle and the Mid North Coast and Hunter New England Local Health Districts to conduct a two-year program to build the research capacity of Clinical Nurse and Midwifery Consultants (CNC/CMCs). The project's short title is 'ClinicalRCB' and is funded by the NSW Regional Health Partners through a \$250,000 grant awarded in early 2021.

The purpose of the ClinicalRCB project is to build CNC/CMC research capacity, engagement, impact and leadership by establishing a collaborative program of mentorship and teamwork between the School of Nursing and Midwifery and the LHDs. Central to this program will be the development of a virtual meeting space and digital resources.

The first stage of the project will commence in July 2021 through focus groups to identify how an academic health services partnership can support effective, sustainable and impactful research by Clinical Nurse and Midwife Consultants.

Chief Investigator: Professor Leigh Kinsman, University of Newcastle and Mid North Coast Local Health District

Co-investigators:

- Professor Maralyn Foureur, Professor of Nursing and Midwifery Research, HNE and UON
- Professor Brett Mitchell, Professor of Nursing, CC and UON
- Professor Amanda Johnson, Head of School and Dean of Nursing and Midwifery, UON
- Professor Ashley Kable, Professor of Nursing, UON
- Professor Vanessa McDonald, Head of Research, UON SONM
- Dr Pauletta Irwin, Head of Teaching and Learning, UON SONM
- Ms Lynne Bickerstaff, District Director of Nursing, CCLHD
- Ms Vicki Simpson, Director, Nursing, Midwifery and Service Reform, MNCLHD
- Ms Elizabeth Grist, Director, Clinical Services, Nursing and Midwifery, HNELHD

Associate Investigators:

- Dr Michelle Giles, Manager HNE Nursing and Midwifery Research Centre
- Dr Jennie King, Clinical Nurse Consultant, Research, CCLHD
- Deborah Schwebel, District Nurse Manager Clinical Practice, MNCLHD

Central Coast Research Institute

The Central Coast Research Institute for Integrated Care (CCRI), a joint venture of the University of Newcastle (UON) and CCLHD, was formally created on 3 March 2020 following the signing of an Affiliation Agreement. The purpose of the CCRI is to deliver research relevant to improving the health and wellbeing of the Central Coast community and beyond through development and evaluation of new models of person-centred integrated care. The CCRI's ambition is to become a recognised centre of research excellence in integrated care through the building of effective research partnerships across Australia and the Asia-Pacific. Key priority agendas for the CCRI include, but are not limited to: healthy ageing, mental health and wellbeing, complex chronic illness, Aboriginal health, and population health.

Over the past year, the focus of the CCRI has been centred on the successful realisation of the Central Coast Clinical School and Research Institute building that opened at the end of June 2021. Co-located with the CCLHD Research Office on Level 10, the CCRI facility includes a communal convening area for informal workplace discussions and events, two adjacent teaching rooms, a boardroom, offices and an open-plan workspace for more than 40 researchers. The small but growing CCRI Faculty includes the Director, Administration Officer, and two Researchers. The CCRI is overseen by a Governance Board comprising CCLHD and UON representation with Professor Mary Foley AM, former Director General and Secretary of NSW Health, as its independent Chair.

By the end of June 2021, the CCRI gained success in 10 competitive grant awards with a total value of \$21.77 million. Tes range of CCRI research studies includes Improving Palliative and End of Life Care for the Central Coast Community, a \$300,000 project funded by the Medical Research Futures Fund (MRFF) through NSW Regional Health Partners. Other research has included: integrated approaches responding to domestic and family violence; health and care responses to natural disasters in rural communities; integrated workforce approaches to mental health in small rural towns; new models of care for the health and life insurance industry; and system failures (and solutions) in nursing home care. The CCRI is also a key partner in the \$7m Cancer Research and Capacity Building (CRTC) Project funded by Cancer Institute NSW, a key regional initiative to build skills and capacity in cancer research; and a \$2.5m Centre of Research Excellence on Integrated Health and Social Care led by the University of Sydney where the CCRI is leading on its knowledge translation and educational capabilities.

As the CCRI continues to expand and grow into the future it will seek to expand its research portfolio; build community partnerships through a range of advisory groups and communities of practice; support education and training opportunities in research skills and research translation, and so directly contribute to achieving the vision being established in the CCLHD's Strategic Research Plan for 2022 to 2026.

CCRI Research Highlights 2020-2021

1	Establishment of NHMRC-funded Centre of Research Excellence on Integrated Health and Social Care (led by the University of Sydney with CCRI as a research partner)
3	Completed research projects
7	Ongoing research projects
22	Publications in peer-reviewed journals, book chapters and official reports
60	Conference presentations
\$8.47m	Value of competitive research grants within which CCRI faculty are named as lead or co-investigator
\$13.35m	Value of competitive research grants within which CCRI faculty are named as associate investigators, members or strategic advisors

Research Publications

CCLHD publications added to CARE and published between 1 July 2020 and 30 June 2021

Alkhouri, H., Richards, C., Miers, J., Fogg, T., & McCarthy, S. (2020). Case series and review of emergency front-of-neck surgical airways from The Australian and New Zealand Emergency Department Airway Registry. *Emergency Medicine Australasia*. https://doi.org/10.1111/1742-6723.13678

Anzela, A., Min, M., Knesl, M., Buddle, N., Azzopardi, M., Hooshmand, R., Barrett, S., Notman, A., Woolls, H., Wilson, J., & Vignarajah, D. D. (2021). Concurrent carbogen and nicotinamide with radiation therapy in muscle invasive bladder cancer: A report on feasibility in the Australian setting. *Journal of Medical Imaging and Radiation Oncology*. https://doi.org/10.1111/1754-9485.13265

Arasaratnam, M., Balakrishnar, B., Crumbaker, M., Turner, S., Hayden, A. J., Brooks, A., Patel, M. I., Lau, H., Woo, H., Bariol, S., & Gurney, H. (2021). Patterns of care and outcomes of men with germ cell tumors in a high-volume Australian center. *Asia-Pacific Journal of Clinical Oncology*. https://doi.org/10.1111/ajco.13548

Bamford, P., Gardiner, K. E., Parkinson, M. D., Bailey, K., & William, M. (2021). Cardiac Myeloid Sarcoma: A 1-kg Heart. *JACC: Case Reports*, *3*(6), 963-965.

https://doi.org/10.1016/j.jaccas.2021.04.033

Bolsewicz, K., Thomas, S., Moore, D., Gately, C., Dixon, A., Cook, P., & Lewis, P. (2020). Using the Tailoring Immunization Programmes guide to improve child immunisation in Umina, New South Wales: we could still do better. *Aust J Prim Health*, *26(4)*, *325-331*. https://doi.org/10.1071/py19247

Buckmaster, A., Arnolda, G., Owen, L., Roberts, C., Davis, P., & Manley, B. (2020). Lost in Transition: Is Early Respiratory Support in Newborn Infants the Best Option? *Neonatology, 1-5.* https://doi.org/10.1159/000508554

Cardoso, M., Choudhury, A., Christie, D., Eade, T., Foroudi, F., Hayden, A., Holt, T., Kneebone, A., Sasso, G., Shakespeare, T. P., & Sidhom, M. (2020). FROGG patterns of practice survey and consensus recommendations on radiation therapy for MIBC. *Journal of Medical Imaging and Radiation Oncology.* https://doi.org/10.1111/1754-9485.13120

Chelvarajah, R., Windsor, A., Nicholls, L., Bravery, B., Shi, K., Turner, S., & Tieu, M. T. (2021). Junior Doctor Evaluation of Radiation Oncology Education and Training in Medical Schools and Prevocational Training in Australia. *Journal of Cancer Education*, 36(3), 646-651. https://doi.org/10.1007/s13187-019-01678-0

Chen, C., Parsons, M. W., Levi, C., Spratt, N. J., Lin, L., Kleinig, T., Butcher, K., Cheng, X., Dong, Q., & O'brien, B. (2021). What is the 'Optimal'Target Mismatch Criteria for Acute Ischaemic Stroke? *Frontiers in Neurology, 11, 1850.*

https://doi.org/10.3389/fneur.2020.590766

Chu, M., Kumar, S., & Sturm, J. (2021). Syphilitic meningitis presenting with multiple cranial neuropathies. *BMJ Case Reports*, 14(6). https://doi.org/10.1136/bcr-2021-241765

Cole, J. C. (2021). Active and healthy: a ten year group history designed to support relapse prevention for older people suffering with anxiety and/or depression. *Mental Health and Social Inclusion*, 25(2). https://doi.org/10.1108/MHSI-09-2020-0062

Daga, N., & Joseph, F. (2020). Denosumab-induced severe hypocalcaemia in a patient with vitamin D deficiency. *BMJ Case Reports*, *13*(8). https://doi.org/10.1136/bcr-2020-234508

Docherty, T., Schneider, J. J., & Cooper, J. (2020). Clinic- and Hospital-Based Home Care, Outpatient Parenteral Antimicrobial Therapy (OPAT) and the Evolving Clinical Responsibilities of the Pharmacist. *Pharmacy (Basel), 8(4).* https://doi.org/10.3390/pharmacy8040233

Efraemson, D., Colgan, J., & Greenwood, M. (2020). The cardiovascular effects of exposure to particulate matter from bushfire smoke in patients with pre-existing cardiovascular disease. *British Journal of Cardiac Nursing, 15(12), 1-7.* https://doi.org/10.12968/bjca.2020.0110

Egger, S. J., Chan, M. M. K., Luo, Q., & Wilcken, N. (2020). Platinum-containing regimens for triple-negative metastatic breast cancer. *Cochrane Database Syst Rev, 10, Cd013750*. https://doi.org/10.1002/14651858.Cd013750

Fernando, S. L., Li, J., Jain, A., Weir, C., & Boyle, T. (2020). Mixed drug reaction to amiodarone characterized by sequential immediate, immune complex, and delayed hypersensitivity. *Annals of allergy, asthma & immunology: official publication of the American College of Allergy, Asthma, & Immunology., 10.* https://doi.org/10.1016/j.anai.2020.03.032

Fong, L. C. W., Ford, T. J., da Costa, B. R., Jüni, P., & Berry, C. (2020). Bias and Loss to Follow-Up in Cardiovascular Randomized Trials: A Systematic Review. *J Am Heart Assoc, e015361*. https://doi.org/10.1161/jaha.119.015361

Ford, T. J., Ong, P., Sechtem, U., Beltrame, J., Camici, P. G., Crea, F., Kaski, J. C., Bairey Merz, C. N., Pepine, C. J., Shimokawa, H., & Berry, C. (2020). Assessment of Vascular Dysfunction in Patients Without Obstructive Coronary Artery Disease: Why, How, and When. *JACC: Cardiovascular Interventions*, *13*(16), 1847-1864. https://doi.org/10.1016/j.jcin.2020.05.052

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