Health Translation SA

> RESEARCH > ACTION > IMPACT

SA COVID-19 Research Register

7th Edition
30 June 2020

Government of South Australia
SA Health

SAHMRI
South Australian Health & Medical Research Institute

Flinders University

The University of Adelaide

University of South Australia

Aboriginal Health Council of South Australia Inc.
'Our health, our choice, our way'

phn Country SA
An Australian Government Initiative

phn Adelaide
An Australian Government Initiative

HCASA
Health Consumers Alliance of SA Inc

South Australian COVID-19 Research Register – 7th Edition

Health Translation SA is developing a South Australian COVID-19 Research Register to support coordination and collaboration, reduce duplication, maximise impact and position South Australia for upcoming funding opportunities.

About Us

Health Translation SA is a virtual whole of state collaborative network which brings together academic, research and health care agencies, and the community. Its purpose is to accelerate the translation of health and medical research findings into policy, education and clinical practice to improve health outcomes for South Australians. The strength of Health Translation SA lies in the effective partnership between research institutes and health care agencies across South Australia.

Our Partner agencies include the SA Department for Health and Wellbeing and its 11 Local Health Networks; SA's two Primary Health Networks (Adelaide and Country SA); SAHMRI; the three South Australian universities – Flinders University, Adelaide University and University of South Australia; the peak body representing the Aboriginal Community Controlled sector in SA – Aboriginal Health Council of SA (AHCSA); and the State's peak health consumer agency - Health Consumers Alliance.

Building the SA COVID-19 Research Register

The purpose of this register is to:

- capture and promote COVID-19 research projects taking place in SA
- support coordination and collaboration between researchers, institutions, health services and industry
- reduce duplication of research
- maximise impact of COVID-19 research
- position SA for upcoming COVID-19 funding opportunities.

The following HTSA partners and key stakeholders were asked to provide high-level information on any local, state or national COVID-19 projects they are currently involved in or are developing:

- HTSA's Board of Partners
- Local Health Network Research Offices
- SA Medical Research Future Fund (MRFF) Working Group
- University Research Offices including FHMRI and SAHMRI, Medical Device Partnering Program (MDPP), CSIRO
- Dept Health and Wellbeing, Commission of Excellence and Innovation in Health, Well Being SA, Digital Health SA
- Primary Care Health Services and Research Contacts (RAGGP, AMA) and Primary Healthcare Networks
- Office of the Chief Scientist of South Australia
- Director Health and Medical Industries - Department for Trade & Investment
- Industry associations/groups – MTP Connect, AusBiotech, Medtec SA, AMGC, SA Data Link, AI Alliance
- SA Translation and Innovation neighbourhood directors - Tonsley and Adelaide BioMed City.

This register contains information provided by research institutions (co-ordinated via the SA-MRFF Working Group) and Local Health Networks (co-ordinated by their Research Offices) and individual research teams.

The Research Register

This Register is a dynamic document and new projects will be added as more information is provided. This 7th edition of the Research Register documents 'current research' as of 30th June 2020.

The information in the Register has been structured within categories of research, and sub-categories. A project title, short description, lead organisations and research contacts are provided.

Clinical Trials
Health Services Research
Public Health Research
Mental Health
Impact of COVID-19
Product Development and Testing
Knowledge Synthesis
Basic Science

To list a current project or provide details of a project in development please contact:
Ecushla.Linedale@healthtranslationsa.org.au

South Australian COVID-19 Research Register

INDEX

Category	Sub-Category	Project	Scope	SA Project Contact	Lead Institution
Clinical Trials	Vaccines	**BRACE** The BCG vaccination to Reduce the impact of COVID-19 in Australian healthcare workers following Coronavirus Exposure (BRACE) Trial is a multi-centre randomised controlled Phase III clinical trial of the BCG vaccine against COVID-19 in up to 7244 healthcare workers The trial includes a pre-planned meta-analysis with data from the 2834 participants recruited in first phase of this study which followed the same protocol but where participants were randomised between BCG and no BCG at the time of receiving a flu vaccination, with a total sample size of 10,078. Randomisation and immunisation will occur at each participating site. Participants will be randomised to receive BCG vaccine or 0.9% NaCl placebo. Participants will be followed-up for 12 months with notification from a smartphone application (up to daily when ill) and surveys to identify and detail suspected COVID-19 infection. Additional information on severe disease will be obtained from hospital medical records and/or government databases. Blood samples will be collected at prior to randomisation and at 3 and 12 months to determine SARS-CoV-2 exposure. Where required swab/blood samples will be taken at illness episodes to assess SARS-CoV-2 infection	National	**SAHMRI** Prof Steve Wesselingh State Co-ordinator **WCHN** Prof Helen Marshall	Murdoch Children's Research Institute (MCRI)
		Chicken coronavirus vaccine: Efficacy against SARS-CoV-2 (COVID-19) – the "21st Century Milkmaid Project" To test existing effective and safe vaccines used in Australia and globally to manage Infectious Bronchitis (chicken coronavirus) in the poultry industry to confirm induction of cross-reactive immunity to SARS-CoV-2 in humans. Manufacturing of these vaccines is already to scale and could offer immediate, even if incomplete, protection for frontline individuals.	SA	A/Prof Kapil Chousalkar	Adelaide University

Category	Sub-Category	Project	Scope	SA Project Contact	Lead Institution
Clinical Trials	ICU Interventions	**Randomised, Embedded, Multifactorial Adaptive Platform Trial for Community-Acquired Pneumonia (REMAP-CAP)** The purpose of this study is to evaluate the effect of a range of interventions to improve outcome of patients admitted to intensive care with community-acquired pneumonia. In addition, REMAP-CAP provides an adaptive research platform for evaluation of multiple treatment modalities in the event of a respiratory pandemic resulting in critical illness. https://clinicaltrials.gov/show/NCT02735707	National	**CALHN** Stephanie O'Connor **Adelaide University** Mary-Anne Chapman **SALHN** Tapaswi Shrestha	Monash University
		Australasian COVID-19 Trial (ASCOT) A multi-centre randomised clinical trial to assess clinical, virological and immunological outcomes in patients with SARS-CoV-2 infection (COVID-19) treated with lopinavir/ritonavir and/or hydroxychloroquine compared to standard of care	National	**CALHN** Catherine Ferguson **SALHN** Nicholas Anagnostou **Adelaide University** Sandra Hodge	University of Melbourne

Category	Sub-Category	Project	Scope	SA Project Contact	Lead Institution
Health Services Research	Screening	**Covid-19 Front of house proactive screening – Health Service Evaluation** Central Adelaide Local Health Network and Rosemary Bryant AO Research Centre, UniSA to progress a health service evaluation on the outcomes and effectiveness of front of house proactive screening of COVID-19 on all members of the public and staff prior to entering the hospital.	Local	**CALHN** Dr Rebecca Munt **RBRC** Prof Marion Eckert	UniSA, Rosemary Bryant Research Centre (RBRC) CALHN
	Point of Care Testing	**Rapid COVID-19 test results to remote Aboriginal and Torres Strait Islander communities** Utilise existing point-of-care testing technology in use for STIs in remote communities to rapidly test and deliver results for COVID-19. The existing network of Aboriginal health services with experience in offering point-of-care testing in rural and remote communities will be expanded to other sites servicing Aboriginal and Torres Strait Islander people in Australia. Collaboration between UNSW, Kirby Institute and Flinders University.	National	**Flinders University** Prof Mark Shephard Dr Rebecca Keough	UNSW Kirby Institute Flinders University
	Protective Equipment	**Protecting our most vulnerable** The Adelaide's Women's and Children's Hospital is trialling an ultraviolet sanitiser in the Neonatal Nurseries. The aim is to reduce viruses and bacteria on mobile phones and other objects brought into the nurseries by staff and parents. The trial was implemented as part of the Preventing Neurological Injury in Preterm Infants initiative, of which one component is to reduce the risk of infection in preterm babies to improve their longer-term health outcomes.	Local	Dr Amy Keir	SAHMRI WCHN
	Allied Health and Nursing	**Evaluation of the rapid changes in allied health and nursing practice in response to COVID-19 in the acute setting.**	SA	A/Prof Belinda Lange	Flinders University

Category	Sub-Category	Project	Scope	SA Project Contact	Lead Institution
Health Services Research	Telehealth	**Telehealth @ UoA – a Virtual Medical Centre** The Centre for Traumatic Stress Studies (CTSS) ran a telehealth project for many years assessing Defence force personnel – at a highly classified level. The University of Adelaide is uniquely positioned to be able to offer a complete service suite to support confidential/private (up to a SECRET classification) telehealth services. This includes: • Setting up and managing the high-resolution video system (Skype, Zoom, Microsoft Teams are deemed to be of insufficient quality to allow for accurate diagnosis in many circumstances). • A central site (equipment supplied, installed and operated centrally for quality delivery of consultation) • Up to 50 remote sites for client consults at home or medical sites such as Pharmacy, Hospitals and Medical centres • Setting up and managing the secure communications network required to carry the video sessions (with redundancy). • Training and providing support to the medical practitioners. The proposed capacity of the system is to have 40 doctors fully trained at Telehealth practice, and for them to be able to conduct 20 consults per day. Storing and maintaining the medical records securely with back up.	**TBA**	A/Prof Bruce Northcote	Adelaide University
		Evaluation of a home tele-monitoring program for patients with chronic conditions self-isolating due to COVID-19.	SA	Prof Robyn Clarke	Flinders University
		Evaluation of interprofessional collaborative practice using fast-tracked telehealth during COVID-19 restrictions.	Local	A/Prof Stacey George	Flinders University NALHN

Category	Sub-Category	Project	Scope	SA Project Contact	Lead Institution
Public Health Research	Population Health Surveys	**The South Australian Population Health Survey (SAPHS) - COVID-19** The South Australian Population Health Survey (SAPHS) is an ongoing cross-sectional population CATI (computer-assisted telephone interview) survey of South Australians of all ages. Dual frame over-lapping sampling technique of mobile phone and landlines were used to collect information from a representative sample of South Australians, using random digit dialling. From April 2020 additional questions were inserted to the survey regarding COVID symptoms and what actions people are taking to protect themselves.	SA	Rebecca Nolan	Wellbeing SA
		COVID PHSMS - The Population Health Survey Module System (PHSMS) The Population Health Survey Module System (PHSMS) is a cross-sectional population CATI (computer assisted telephone interview) survey of South Australian adults aged 18 years and over (n=3000). Dual frame over-lapping sampling technique of mobile phone and landlines were used to collect information from a representative sample of South Australians, using random digit dialling. Data collection commenced May 14. Questions topics included symptoms, awareness, wellbeing, food consumption and purchasing behaviours, food security, physical activity behaviours, employment and financial stress, mental health, isolation and loneliness.	SA	Rebecca Nolan	Wellbeing SA
	Public Health Promotion	**Identifying gaps in behaviour, including randomised evidence-based intervention using influencers.** Preventing the spread of COVID-19 is, so far, our only defence against the virus. Yet remarkably, many people still don't know what relatively simple behaviours they should be observing to help slow the spread. SAHMRI researchers are conducting a survey to identify knowledge gaps among the public. The team is also investigating whether randomised evidence-based intervention featuring "influencers" such as Adelaide Crows coach Matthew Nicks and Port Adelaide player Hamish Hartlett can be effective in increasing public knowledge.	Local	Dr Johan Verjans	SAHMRI
		"Keeping Well during COVID-19" Department of Veterans Affairs, Veterans' MATES program Covid-19 Rapid Response https://www.veteransmates.net.au/topic-59	National	**Uni SA** Prof Libby Roughead	QUMPRC Uni SA Dept Veteran's Affairs

Category	Sub-Category	Project	Scope	SA Project Contact	Lead Institution
Public Health Research	Public Health Promotion	**COVIDSafe App - SA Consumer Experience Survey** To date, approximately 5.4 million Australians have downloaded the app, that represents about 28.7% of Australians with smartphones over the age of 14. We want to know what South Australians think of the Federal Government's COVIDSafe App in terms of access, trust and to find out why people have/haven't downloaded the app. There have been concerns raised over the access, privacy, viability of the app and what will happen with the data collected. These concerns have led to confusion and alarm over the app for many people, and a reluctance to download it.	SA	Julia Overton	**HCASA**
		Increasing uptake of the COVIDSafe app The use of mobile phone applications, such as COVIDSafe, to promote policy outcomes is a relatively new phenomenon. Unlike commercial applications where end-users voluntarily download widgets for their benefits, the adoption of government-designed applications are often met with pushback for a number of reasons. These can relate to policy variables (e.g., the intangibility of personal benefits, political distrust in governments, underestimating the usefulness of contact tracing) or can regard general app-specific factors (e.g., user-friendliness, battery-life consumption, data handling and privacy concerns). Successfully rolling out these technologies to support policy outcomes requires that governments incorporate people's perspectives both as public citizens and private consumers. With a view to increasing uptake of the COVIDSafe app, we propose undertaking a survey of 3,000 demographically and geographically representative residents from across Australia, with the following objectives: (1) Identify the factors that influence the uptake of government-designed apps; (2) Measure how the salience of these factors varies across different sub-populations, as a function of their demographic, geographic and attitudinal characteristics; and (3) Predict the uptake of government apps (with a particular emphasis on COVIDSafe) across different population and sub-population groups as a function of app characteristics, supporting government policies and regulations, and broader context.	National	Dr Akshay Vij	Uni SA

Category	Sub-Category	Project	Scope	SA Project Contact	Lead Institution
Public Health Research	Modelling	**A model to predict pandemic recurrences** Statistical analysis will be performed to past flu pandemic data to model the return period of pandemic. Understanding the return period of pandemic is as important as solving the immediate impacts of pandemic in the public health. The proposed project will be conducted using statistical analysis. Data related to A H1N1 1918 Spanish Flu, AH3N2 1967 – 68 Flu, A H2N2 1957 – 58 Flu, AH1N1 2009 Swine Flu and 2020 COVID-19 will be considered. Health related data (such as no. of conformed cases, death rate for different age groups) for those pandemic events will be collected from existing literature and reports from World Health Organization (WHO). Data related to population dynamics, social behaviour of people during those events and geo-environmental data (such as, temperature, rainfall, humidity etc.) for pre, during and post periods of those pandemic events will also be collected from literature and reports of various UN organizations. Collected data will be entered into SPSS (Statistical Packages for the Social Sciences). Statistical analysis for the data of past pandemic events will be performed to understand the return period of pandemic.	International	Dr Faisal Ahammed	UniSA
	Biobank & Registries	**FORCE COVID-19 Virtual Clinical Registry & Biobank** Flinders Coronavirus Collective (FORCE) is an initial collaboration between Flinders University and SALHN, with the intention of extending governance across SA LHNs. The project will establish a South Australian COVID-19 virtual registry and biobank leading to an evidence-base for characterisation of COVID-19 disease spread, severity and survival. The project will collate relevant data and biobank specimens from all individuals presenting for COVID-19 testing. Key initial hypotheses will explore ACE-I/ARB exposure and risk of severity of COVID-19 disease, severity of COVID-19 disease and risk factor predisposition, and pregnancy changes risk for severe COVID-19 disease.	SA	Dr Erin Morton Dr Rebecca Keough	Flinders University SALHN

Category	Sub-Category	Project	Scope	SA Project Contact	Lead Institution
Public Health Research	Surveillance Studies	**COVID-19 SA** This is a state-wide collaboration between the Adelaide University I immunologists and virologists and RAH/WCH clinicians. The project will have a direct and immediate impact on current disease responses and treatments, in adults, children and pregnant women diagnosed with COVID-19, as it will examine disease progression and immune phenotype of severe, mild and convalescent patients. This is a long-term study with an immediate impact and a goal of establishing a South Australian biobank of COVID-19 samples from different patient cohorts. This will allow continuation of the work and follow up of patients for 3 years. Long-term follow up of patients that recover from COVID-19 will have significant impact on vaccine development and public health outcomes and management at a national and international level.	SA	**Adelaide University** Dr Branka Grubor-Bauk **WCHN** Prof Simon Barry	Adelaide University CALHN WCHN
		Incidence and complications of COVID-19 for patients using renin-angiotensin system inhibitors: a multi-national, large-scale cohort study Observational Health Data Sciences and Informatics	International	**Uni SA** A/Prof Nicole Pratt	OHDSI collaboration
		A Single-Site Study for the Collection of Pre- and Post- Vaccination Blood Samples from Volunteers Receiving the 2020 Southern Hemisphere Formulation of Inactivated Influenza Vaccine. A Surveillance Study for influenza vaccine that has recently submitted an amendment to add other respiratory viruses such as COVID-19. The aim of the original study is to provide the World Health Organisation (WHO) Collaborating Centre for Influenza Reference and Research with serum samples from individuals vaccinated with the Southern Hemisphere formulation of an inactivated influenza vaccine. Currently the use of the serum collected for the WHO Influenza study includes laboratory tests needed for the monitoring and development of vaccines by Seqirus for influenza. The amendment is to the Protocol and Participant Information and Consent Form to broaden these laboratory tests to include other respiratory viruses, potentially including COVID-19.The Sponsor Seqirus Pty Ltd will utilize another part of the blood samples to monitor the clinical assays that are used to evaluate the immune response against influenza vaccines. In addition, samples may be used in the development of laboratory tests to support vaccine development for influenza or other respiratory viruses.	SA	Prof Helen Marshall	WCHN

Category	Sub-Category	Project	Scope	SA Project Contact	Lead Institution
Public Health Research	Surveillance Studies	**FFX Study Assessing early stages of infection** SAHMRI-based Health Policy Centre is working with SA Health, the University of Adelaide's School of Public Health and the Doherty Institute on the world leading "FFX study". The project will measure the infectiousness and severity of COVID-19 in the First Few days after infection. The aim is increase understanding of how the virus spreads and its effect on patients and their families. It is a national study collecting information of the first 1000 cases across Australia.	National	**SAHMRI** Prof Steve Wesselingh Prof Caroline Miller State Co-Ordinator **Adelaide University** Dr Adriana Milazzo	Doherty Institute SAHMRI SA Health Adelaide University
		Development and validation of patient-level prediction models for disease progression amongst adult patients admitted to hospital with pneumonia: a rapid network study to inform the management of COVID-19 Observational Health Data Sciences and Informatics	International	**Uni SA** A/Prof Nicole Pratt	OHDSI collaboration
		Short Period Incidence study of Severe Acute Respiratory Infection (SPRINT-SARI) International collaborative project aimed at characterizing SARI patients as a global problem to better inform management strategies and ultimately to improve the ability of health care systems to rapidly respond to emerging infectious causes of severe acute respiratory infection (SARI) https://clinicaltrials.gov/ct2/show/NCT02498587	International	**SAHMRI** Prof Steve Wesselingh State Co-ordinator **CALHN** Stephanie O'Connor **SALHN** Tapaswi Shrestha	Monash University
		Characteristics of COVID-19 in South Australia This study aims to assess the clinical characteristics of COVID-19 in South Australia, by conducting tests on clinical samples collected for standard care, from patients diagnosed with COVID-19.	Local	Dr Teddy Teo	CALHN
		ANZDATA Registry Collecting data on dialysis and kidney transplant patients. Data collection has been extended to include incidence and outcomes of COVID-19 among the Dialysis and kidney transplant cohorts.	Aus/NZ	Kylie Hurst	SAHMRI
		Prospective data collection on pregnant women exposed to COVID-19 The aims of this study are to establish a prospective data registry for pregnant women with SARS-COV-2 infection in Australia and New Zealand in order to better characterise the risks associated with COVID-19 during pregnancy on maternal and neonatal outcomes. This will allow us to describe risk factors and modifiers, the natural course of the disease, the risk of adverse maternal and pregnancy outcomes, maternal death and neonatal outcomes, including vertical transmission, prematurity and neonatal death.	National	**WCHN** Prof Jodie Dodd	Royal Women's Hospital WCHN

Category	Sub-Category	Project	Scope	SA Project Contact	Lead Institution
Public Health Research	Surveillance Studies	**A multicentre study of SARS-Cov-2 infection in children with cancer, immunodeficiency or following stem cell transplant** Since the identification of a novel coronavirus SARS-CoV-2 in December 2019 and its associated respiratory disease named COVID-19, the virus has gained worldwide attention. To date, much of the published literature has described the presentation, outcomes and risk factors for severe disease in adult patients. While the exact mechanism is unknown, it appears that children are less frequently impacted by the virus with fewer infections reported and clinical features less severe than adult patients. However, the impact on higher risk groups, particularly children with cancer, following stem cell transplant or with other forms of immunocompromise, remain unknown. In collaboration with the Australian National Centre for Infections in Cancer (NCIC) this project aims to evaluate the clinical course and outcomes of children with immune suppression who develop COVID-19. Uniform data will be collected across Australia and internationally to ensure that we can rapidly identify the typical signs and symptoms of infection in these patients as well as any potential risk factors for severe illness.	National	**MCRI** Dr Gabrielle Haeusler **WCHN** Dr Heather Tapp	Murdoch Children's Research Institute (MCRI)
		Tracking the spread of Covid-19 disease in parts of regional South Australia by Wastewater Analysis This project proposes to detect outbreaks and changes in Covid-19 on a population scale using a Wastewater-based Epidemiology (WBE) approach. The aim is to utilise this information as a predictive tool for immediate intervention for example to provide the information to focus clinical screening.	SA	A/Prof Cobus Gerber A/Prof Michael Short A/Prof Rietie Venter	UniSA

Category	Sub-Category	Project	Scope	SA Project Contact	Lead Institution
Public Health Research	Screening	**Sniffer dog COVID screening** Explosives-detecting dogs can sniff and confirm infection with SARS-CoV2 with (in early tests) 100% accuracy for symptomatic carriers. When trained and tested they can be deployed alongside sniffer dogs already working in airports to instantly screen passengers as they disembark, at large gatherings such as sporting arenas or for professionals routinely exposed to occupational risk for whom repeated swab testing is not quick enough or tolerable (eg. in hospitals or clinics). The local team need to confirm techniques for animals to interface with human sniff subjects, and that asymptomatic carriers can be equally well identified. They'll work with molecular sensing engineers and scientists to improve understanding of how/what the dogs are actually detecting (this is currently unknown, even though dogs are used so widely in health and non-health industries). Within a year these specialist dogs would be managed by federal government agencies, or existing dogs can be upskilled to detect covid infection (as well as smuggled fresh produce or illicit drugs). Such a canine taskforce would add to the global armamentarium needed to monitor consequences of resumed travel and social movement as the global economy forces a return to normal.	SA	Dr Anne-Lise Chaber Dr Susan Hazel	Adelaide University
	Health & Wellbeing	**Isolating the psychological predictors of physical activity during COVID-19 and identifying how to best harness its social features to effectively support physical activity during COVID-19 and beyond.**		Dr Ivanka Pritchard	Flinders University
		Assessing general population preferences for a caring and well-being focused society in the post COVID-19 world.		Dr Rachel Milte	Flinders University
		The strengths and needs of families facing homelessness, people with disability needing daily support and older Chinese speakers with little English affected by COVID-19 isolation		Prof Sally Robinson	Flinders University
		Reducing social isolation and improving the quality of life older people living alone in community dwellings and receiving aged care services during COVID-19 restrictions.		**Flinders University** Prof Julie Ratcliffe	Flinders University Dementia Alliance International ECH Independent Living
		How parents are managing family life during COVID-19, and the pandemic's impact on parents' self-care behaviours.		Prof Rebecca Golley	Flinders University

Category	Sub-Category	Project	Scope	SA Project Contact	Lead Institution
Mental Health	Resource Development	**Be Well Plan** A collaboration between the SAHMRI Wellbeing and Resilience Centre (WRC) and Flinders University, the project is addressing the mental health and wellbeing of students within EPSW, using an online platform. Along with baseline measurements of mental health, the platform also provides bespoke and personalised interventions to improve the resilience and wellbeing. The online platform has been adapted to be available to the general public (www.bewellplan.com). Generic interventions are available free of charge, with personalised programs currently offered for a "gold coin" donation.	Local	Prof Mike Kyrios Joep van Agteren	SAHMRI Flinders Uni
	Impact	**The impact of COVID-19 on distress, wellbeing and resilience in both the short and long-term.** COVID-19 is expected to lead to widespread community mental health consequences as a result of the economic and social flow-on effects of the pandemic. Determining the impact of COVID-19 on the mental health of non-clinical community members can shed important insight into potential increased risk of deteriorating mental health outcomes, which in turn has implications for (future) health service resourcing. This study sets out to quantify the impact of COVID-19 on distress (depression, anxiety and stress) and indicators of wellbeing and resilience, both in the short- and longer term.	SA	**SAHMRI** Joep van Agteren **Flinders University** Dr Dan Fassnacht	SAHMRI Flinders Uni
		Does health anxiety help or impair our citizens to act effectively during the COVID-19 pandemic? (Unfunded) The Corona Virus Pandemic has led to unwanted asocial behaviours for example stockpiling of toilet paper. The aim of this study is to investigate what may be the optimal level of anxiety associated with people acting constructively and avoiding unhelpful behaviours in a pandemic situation. An electronic survey will be distributed via social media platforms (e.g. Facebook) in three different languages (English, French, Dutch).	International	Charlotte Goess	CALHN (Royal Adelaide Hospital)

Category	Sub-Category	Project	Scope	SA Project Contact	Lead Institution
Mental Health	Impact	**Mental health and wellbeing of working adults during Covid-19** Restrictive measures to contain COVID-19 disrupt people's normal work and life, which in turn may impact the health and wellbeing of people. Adults from 64 cities in China were surveyed after one month of confinement in Feb 2020. Adults who stopped working reported worse mental and physical health conditions as well as distress. Work can provide people with a sense of purpose and routine, which is particularly important during this global pandemic. This study (published) provides the first empirical evidence of the mental health and its predictors during the unprecedented crisis. It can assist mental health professionals to select predictors to identify the mentally vulnerable groups but also encourages more research on the mental health conditions and predictors during Covid-19 crisis around the world. It was the first Covid-19 paper in Web of Science indexed journals from an Australian institution. It also has already received 100+ media coverage internationally (e.g. Yahoo US/SG/MY, Wired Italy) and across states (e.g. Sydney Morning Heralds, Brisbane Times).	International	**Adelaide University** Stephen Zhang	Adelaide University Tonji University (China) University of Sydney
		Mental health insights pre and post COVID-19 This study will provide critical insights into how we've been coping physically, mentally and socially and identify what support is needed in the future. The study will use existing data collected from subsets of the South Australian community over the past 20 years to form a baseline standard, which would then allow a more accurate indication of how the COVID-19 pandemic has affected mental health and wellbeing. More than 3000 people will be invited to participate in the study. This modelling approach will quantify the short and medium-term effects of a significant event like this on a person's health. The data will also allow identification of distinguishing characteristics that effect the likelihood of experiencing distress during COVID-19, and ability to manage this stress.	SA	**Flinders University** Prof Robert Adams	Flinders University The Freemason's Centre for Male Health and Wellbeing, Adelaide University SAHMRI Central Queensland University

Category	Sub-Category	Project	Scope	SA Project Contact	Lead Institution
COVID-19 Impact Evaluation	Workforce	**Pandemic programming: Investigating the effects of software professionals working from home during the COVID-19 crisis** Due to the COVID-19 pandemic, many knowledge workers have been asked or told to work from home. While there is a large body of research on working from home and a large body of research on distributed software development, there is no research on working from home during an unprecedented pandemic where widespread lockdowns have closed schools, day-cares, fitness facilities, entertainment facilities, and other businesses. The purpose of this study is to investigate: (1) how working from home under these conditions affects software professionals' wellbeing and productivity and (2) what software companies are and could be doing to help.	International	**Adelaide University** Dr Sebastian Baltes	Dalhousie University, Canada Adelaide University
		The COVID-19 pandemic: A descriptive, longitudinal, mixed methods study of the professional and personal impact on Nurses, Midwives, Allied Health Professionals and students of these disciplines.	International	**Adelaide University** Dr Rebecca Munt	Curtin University
		Nursing students' willingness and confidence to volunteer in the event of a pandemic: A quantitative study Pandemic events may cause a shortage of healthcare workers especially nursing staff. This project will explore through a survey second year nursing students' willingness and confidence to volunteer to work in a hospital during a pandemic event.	Local	Dr Morgan Smith	Adelaide University
		Coping with COVID19: perceptions of and strategies used by nurse, midwife and paramedic academics teaching these frontline workers. The aim of the study is to capture the experiences and perceptions of academic staff who prepare 'front line workers' (e.g. nurses, midwives, paramedicine) on their changing working environment. It explores how they cope, as well as ascertain their attitudes to the responses by their employers to their increased stress.	National	**Adelaide University** Prof Desley Hegney	CQU

Category	Sub-Category	Project	Scope	SA Project Contact	Lead Institution
COVID-19 Impact Evaluation	Workforce	**Impact of COVID-19 on practice and well-being of staff within Child and Adolescent Mental Health Services (CAMHS) South Australia** The onset of the pandemic COVID-19 has led to many changes in Child and Adolescent Mental Health Service Delivery. Changes have included a reduction in face to face consultations, assessments and therapy/interventions. Telehealth is now the preferred method of interaction with staff wherever possible requested to work from home and implement this form of service delivery. Although there is evidence to suggest that telehealth is a viable and effective means of consultation with certain groups there remains potential for problems and inefficiencies to occur for both staff and consumers. This study aims to identify and expand on the experiences and perceptions of CAMHS staff in the use of the "new" service delivery model. Anticipated outcomes include greater understanding of the perceived benefits and disadvantages of telemedicine, as well as working from home. the degree of expertise, satisfaction and confidence in the technologies required to provide this form of service delivery and any changes that may be implemented as a consequence of the experiences reported by staff. This may lead to consideration of changes to how services are provided post pandemic.	Local/State	Gigetta Salamone	WCHN
	Education	**Effects of remote participation on retention and experience of students with intellectual disabilities and peer mentor (placement students) during COVID-19 restrictions.**	Local	**Dr Fiona Rillotta**	Flinders University
		Literacy challenges related to interrupted attendance at schools and clinics during COVID-19. Team will develop and test a new hybrid model of instruction using telehealth and parent-literacy support for children with developmental disabilities.	Local	**Prof Jo Arciuli**	Flinders University
	Pregnancy	**Obstetrical and perinatal outcomes of pregnancies affected by COVID-19: a retrospective, multicenter study** Reporting pregnancy and perinatal outcomes of COVID-19 during pregnancy. What are the obstetrical risks associated to COVID-19 disease in pregnant women?	International	**Adelaide University** A/Prof. Bernd Froessler	University of Naples Federico II

Category	Sub-Category	Project	Scope	SA Project Contact	Lead Institution
COVID-19 Impact Evaluation	0lder People	**COVID-19's impact on viral respiratory infections among the older population – Registry of Senior Australians** The SAHMRI-based Registry of Senior Australians (ROSA) is conducting research that will inform health departments' preparations to cope with the suspected increase in older people with viral pneumonia. To accurately predict the response needed, ROSA is examining hospitalisation rates and health service utilisation in the residential aged care population. Specifically, the team is analysing data of hospitalisations for lower viral respiratory infections among the residential aged care population from 2013 to 2017, what specific procedures (eg ventilators or intubations) were needed, where cases escalated to intensive care and why, the average length of hospital stay, rates of readmission and number of deaths.	National	A/Prof Maria Inacio	SAHMRI
	Elective Surgery	**Outcomes of surgery in COVID-19 infection: international cohort study (CovidSurg)** The aim of this study is to understand the outcomes of COVID-19 infected patients who undergo any type of elective surgery and determine the 30-day mortality rate in these patients. https://www.clinicaltrials.gov/ct2/show/NCT04323644	International	**CALHN** Dr Hidde Kroon **SALHN** Prof David Watson	University Hospital Birmingham, UK
		Outcomes of elective cancer surgery during the COVID-19 pandemic crisis: an international, multicentre, observational cohort study (CovidSurg-Cancer) The aim of this study is to understand the outcomes of COVID-19 infected cancer patients who undergo elective surgery and evaluate infection and mortality rates in this patient group. The study also aims to evaluate the impact of the COVID-19 pandemic on treatment pathways for cancer patients.	International	**CALHN** Dr Hidde Kroon	University Hospital Birmingham, UK
	Industry	**AUSBIOTECH: COVID-19 Impact Survey** AusBiotech is collecting feedback from its members and will continue to communicate the impacts of COVID-19, from clinical trials impacts, to access to capital, and eligibility and support for the workforce.	National		Ausbiotech

Category	Sub-Category	Project	Scope	SA Project Contact	Lead Institution
Product Development & Testing	PPE	**Mask Testing** Development of a SA masking testing facility for surgical and particulate (e.g. N95 equivalent) masks, supporting local manufacture. Collaboration between Flinders University and Uni SA.	Local	**UniSA** Prof Emily Hilder **Flinders University** Prof Karen Reynolds	UniSA Flinders University
	Ventilators	**COVID-19 Ventilator Project** The Cystic Fibrosis Airway Research Group (CFARG) is working with 4Dx to rapidly develop and test new ventilator technology. The ventilator can be built from readily available food-grade parts at low cost and in high volumes, using local manufacturing and Australian supply chains that are not dependent on currently unreliable international supply and shipping systems. The project vision is to make the ventilators available in Australia as well as overseas, particularly in developing countries where ventilators are often not available and the impact of COVID-19 is likely to be severe. Status: Prototype testing of ventilator effectiveness and safety in pigs has begun with the assistance of Dr Chris Christou, Director of the SAHMRI animal facility (LARIF). The pig model is most similar to humans in regard to lung physiology and lung function. The team is also establishing the necessary manufacturing and supply chain requirements with the assistance of the Department of Trade and Investment within the SA Government.	SA	A/Prof David Parsons	Adelaide University 4Dx SAHMRI WCHN

Category	Sub-Category	Project	Scope	SA Project Contact	Lead Institution
Product Development & Testing	Diagnostics	**Breath Analysis** Non-invasive identification of respiratory challenges – this existing project commenced before COVID. This technology could be very promising for a field-deployable, disease-agnostic detection of people with some level of respiratory distress.		Dr Johan Verjans	Adelaide University SAHMRI
		Development of testing reagents and protocols Supporting SA Pathology in development of local supply chain for reagents and consumables required for diagnostic testing. Collaboration between all 3 local universities and industry (e.g. Ferranova)	Local	Prof Benjamin Thierry	UniSA
	Diagnostics	**Turning wastewater sludge into Covid-19 test reagents that are running low in Australia.** The PCR test for SARS-CoV2 involves RNA extraction using magnetic microbeads. Under normal circumstances, these are commercially sourced and imported from the US, but overwhelming demand means this test component is now difficult to secure. In order to maintain (and ideally increase) the volume of tests performed; state-based pathology services need to locate/develop an alternative type of magnetic bead. An alternative nanobead can be manufactured from material in wastewater sludge - bacteria that live in public water pipes (inconveniently) grow a biofilm of iron oxide nanowires – this normally has to be scraped out by the tonne and is a burden for the industry to manage and dispose of. Tests confirm the bacterial nanowires can be treated and converted into magnetic nanobeads that potentially function better than those on the market now. Most importantly, SA Water literally has pits full of the starting material (sludge). Final tests are now required to confirm the new beads are good to roll out into diagnostic labs as soon as possible, in quantities that can cover Australia's demand for several years. TRL3 status is confirmed.	SA	**Adelaide University** Prof Dusan Losic **SA Pathology** Dr Geoff Higgins	Adelaide University SA Pathology

Category	Sub-Category	Project	Scope	SA Project Contact	Lead Institution
Knowledge Synthesis & Guideline Development	Clinical Trial Core Outcome Set	**COVID-19 Core Outcome Set: An international initiative to establish critically important core outcomes for trials in COVID-19** The COVID-19-COS project https://www.covid-19-cos.org/who-we-are/is part of the Australian Living Evidence Consortium National COVID-19 Clinical Evidence Taskforce guidelines initiative. This project aims to establish a core outcome set (which is an agreed, standardised group of outcomes to be reported by all trials within a research field) for trials in patients with confirmed or suspected COVID-19. This will ensure that research and clinical guidelines address outcomes that are meaningful and important. Supported by Cochrane.	National	**Flinders University** Prof Jonathan Craig Dr Rebecca Keough	Monash University leading International Steering Committee
	Policy	**Evaluating evidence to inform best practice public health policy** The SAHMRI-based Health Policy Centre is collaborating with Health Translation SA and the Commission on Excellence and Innovation in Health to deliver the best evidence to the South Australian COVID-19 Taskforce to inform its responses. The team is presented with questions on an almost daily basis. They gather and evaluate all available international evidence on each given topic and present those findings to the state's policy and decision-makers.	SA	**SAHMRI** Prof Caroline Miller	SAHMRI HTSA CEIH
	Cancer Treatment	**Global survey of patients with chronic myeloid leukaemia (CML)** SAHMRI's Precision Medicine Theme, initiated a global survey of CML patients who've contracted COVID-19. Some CML therapies suppress the immune system and some cause heart and lung toxicities raising concerns about COVID-19 posing higher risks to CML patients on active treatment. Through the International CML Foundation, SAHMRI researchers have released an initial information sheet and is developing more detailed evidence-based guidelines for clinicians and patients around the world.	International	Prof Tim Hughes	SAHMRI
	Physiotherapy Management	**Physiotherapy Management for COVID-19 in the acute hospital setting; recommendations to guide clinical practice** Document outline recommendations for physiotherapy management of COVID-19 in the acute hospital setting. It includes recommendations for physiotherapy workforce planning and preparation, a screening tool for determining requirement of physiotherapy, recommendations for the selection of physiotherapy treatments and personal protective equipment.	International	**Flinders University** Dr Claire Baldwin Dr Sarah Thomas	International

Category	Sub-Category	Project	Scope	SA Project Contact	Lead Institution
Knowledge Synthesis & Guideline Development	Palliative Care	**Evidence based on-line palliative care resources in preparation for the event of rapid COVID-19 spread and mortality.** As part of Australia's national response to the pandemic, experts in palliative care are combining forces to provide the best possible end-of-life care to the community. Researchers from Flinders University are collaborating with the Australian Coronavirus Disease 2019 (COVID-19) Palliative Care Working Group (ACPCWG), led by Palliative Care Australia to provide the best possible end-of-life care to the community and support vital nationwide preparation in the event of rapid COVID-19 spread and mortality. They are providing on-line evidence-based palliative care resources and expertise to families, GPs and aged care providers enabling them to recognise and respond to the needs of a wide range of people, including those already in palliative care, those with progressive chronic diseases and patients who are seriously ill as a result of a COVID-19 infection.	National	**Flinders University** Prof Jennifer Tieman Dr Sarah Thomas	Palliative Care Australia
	Surgery	**Guidelines for safe surgery during the COVID-19 pandemic: open versus laparoscopic** https://www.surgeons.org/media-centre/covid-19-information-hub#Useful%20guidelines	National	A/Prof Wendy Babbage	Royal Australian College of Surgeons
		Guidelines for Personal Protective Equipment – Surgery https://www.surgeons.org/media-centre/covid-19-information-hub#Useful%20guidelines	National	A/Prof Wendy Babbage	Royal Australian College of Surgeons
		Surgery triage: responding to the COVID-19 pandemic https://www.surgeons.org/media-centre/covid-19-information-hub#Useful%20guidelines	National	A/Prof Wendy Babbage	Royal Australian College of Surgeons

Category	Sub-Category	Project	Scope	SA Project Contact	Lead Institution
Knowledge Synthesis & Guideline Development	Infection Prevention	**JBI COVID-19 Special Collection** The JBI COVID-19 Special Collection summarises current best evidence and provides detailed recommendations for methods of hand washing with soap and water, hand rubbing with alcohol solution and when and how to wear personal protective equipment. You may have read in the University's newsroom that the Joanna Briggs Institute (JBI) collated, scrutinised and synthesised best practice infection prevention research from universities and hospitals across the globe to create free online resources for health professionals and organisations. These resources support clinicians worldwide by ensuring their infection prevention and control practices are current and evidence-based and can be downloaded from the JBI website.	Local	Prof Zoe Jordan	Adelaide University
	PPE Use	**Suite of instructional videos on correct use of PPE** Adelaide Health Simulation's Associate Professor Adam Montagu shared a newly created suite of instructional videos, designed to educate students and clinicians on correct use of personal protective equipment (PPE). These important PPE resources have been adopted by SA Health's Central Adelaide Local Health Network and are available for all staff to reference and share.	SA	A/Prof Adam Montagu	Adelaide University
		Policies and procedures for personal protective equipment: does inconsistency increase risk of contamination and infection? https://www.sciencedirect.com/science/article/pii/S0020748920301371?via%3Dihub International Journal of Nursing Studies, https://doi.org/10.1016/j.ijnurstu.2020.103653	International	Dr Micah Peters	UniSA Rosemary Bryant AO Research Centre

Category	Sub-Category	Project	Scope	SA Project Contact	Lead Institution
Knowledge Synthesis & Guideline Development	Evidence Briefings for Healthcare	**COVID-19 Evidence Briefing Papers - Australian Nursing and Midwifery Federation (ANMF) – Federal Office** http://anmf.org.au/campaign/entry/coronavirus-covid-19-information-for-members A growing collection of regularly updated evidence briefs for nurses, midwives, and other healthcare workers and knowledge users based on the current, best-available evidence on a range of issues including: • COVID-19: Personal Protective Equipment • COVID-19: Provisions for Casual Nurses • COVID-19: Social Distancing and Containment • COVID-19: Testing for COVID-19 • COVID-19: Hand Sanitiser Ingredients • COVID-19: Modes of Transmission and Infection • COVID-19: Cleaning and Disinfection of Hospital Surfaces and Equipment • COVID-19: Negative Pressure Rooms • COVID-19: Wearing Masks and Face Coverings in the Community • COVID-19: Protecting Healthcare Workers from Infection • COVID-19: Screening COVID-19 Evidence Briefing Papers - Australian Nursing and Midwifery Federation (ANMF) – Federal Office http://anmf.org.au/campaign/entry/coronavirus-covid-19-information-for-members A growing collection of regularly updated evidence briefs for nurses, midwives, and other healthcare workers and knowledge users based on the current, best-available evidence on a range of issues including: • COVID-19: Personal Protective Equipment • COVID-19: Provisions for Casual Nurses • COVID-19: Social Distancing and Containment • COVID-19: Testing for COVID-19 • COVID-19: Hand Sanitiser Ingredients • COVID-19: Modes of Transmission and Infection • COVID-19: Cleaning and Disinfection of Hospital Surfaces and Equipment • COVID-19: Negative Pressure Rooms • COVID-19: Wearing Masks and Face Coverings in the Community • COVID-19: Protecting Healthcare Workers from Infection • COVID-19: Screening	National		UniSA Rosemary Bryant AO Research Centre ANMF (Federal Office)

Category	Sub-Category	Project	Scope	SA Project Contact	Lead Institution
Basic Science	Infection and Immunity	**Whole Genome Sequencing Analysis of Sars-Cov2 Infection in SA** Whole genome sequencing (WGS) and phylogenetic analysis of SARS-CoV-2 from patient's specimens is key to monitoring and tracking viral outbreaks in the community. WGS examines the relatedness of the virus from different clusters of outbreaks within SA and Australia. This information could identify certain clusters of outbreaks to a common source and assist the public health authorities to identify a missing link rapidly. In the immediate term, this project will help with the containment and elimination of SARS-CoV-2 in SA and in the longer-term, would better prepare the SA public health response to other viral outbreaks in the future.	SA	A/Prof Michael Beard	Adelaide University SA Pathology
	Vaccine Development	**Preventing a hijack: Blocking COVID-19 reproduction in the cell** Fast-tracking a safe and effective way to slow or stop viral growth is a critical weapon in the fight against COVID-19 as we await development of a vaccine. Once coronavirus breaks into a victim's cells, it effectively hijacks the system for making proteins, which allows the virus to make the proteins it needs to reproduce and then escape to infect other people. SAHMRI researchers have been studying a protein-making pathway that is activated by coronavirus, meaning inhibiting this pathway could drastically slow viral growth. Preclinical models have provided information on how to inhibit this pathway, by using a drug that is already in Phase 2 clinical trials. (The drug is already cleared for use in humans).	Local	Prof Chris Proud Dr Kirk Jensen	SAHMRI

For further information please contact:

Adelaide University
Cadence Haynes
MRFF Opportunities Manager & Grant Strategist
M. +61 422 249 245
E: Cadence.Haynes@adelaide.edu.au

UniSA
Leanne Britcher
Grant Developer: Major Research Initiatives
P: +61 8 8302 6460
E:Leanne.Britcher@unisa.edu.au

Flinders University
Carmela Sergi
Health Partnership Director
M: +61 408 062 094
E: Carmela.Sergi@flinders.edu.au

SAHMRI
Peter McDonald
Head of Media & Communications
M: +61 0402 293 078
E: pete.mcdonald@sahmri.com

Health Translation SA
Ecushla Linedale
Senior Project Officer | Capacity Building
P: 8128 4130
E:Ecushla.linedale@healthtranslationsa.org.au

Flinders University
Karen Ashford
Director for Media & Communications
M: +61 427 398 713
E: karen.ashford@flinders.edu.au

For more information:

P +61 8 8128 4380
E enquiries@healthtranslationsa.org.au

Postal Address PO Box 11060 Adelaide SA 5001
Address SAHMRI, North Terrace, Adelaide SA 5000

healthtranslationsa.org.au

Health Translation SA
>RESEARCH >ACTION >IMPACT