

THE FIRST FIVE YEARS 2015-2020

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A note from the Executive Director

I am pleased to present this history of the Western Australian Health Translation Network (WAHTN) as of June 2020. The WAHTN (www.wahtn. org) has been in existence for five years and I have had the privilege of being Executive Director (ED) since April 2018, following on from the inaugural ED John Challis.

In late 2019 the Executive Board agreed to review the WAHTN's governance structure and strategic aims. As such it seemed fitting to produce a report on the first five years of the WAHTN, while looking to the future.

I would like to commend the work of not only the WAHTN staff but also the many collaborators who volunteer their time and services to sit on committees, attend meetings, lead initiatives and advocate for WAHTN and the broader collaborative research community. I would like to thank those who have served as members of the Management Committee and Executive Board, especially the Board Chair Malcolm McCusker. I acknowledge The University of Western Australia which acts as our Centre Agent and the Department of Health which continues to support WAHTN and several of its key platforms.

The COVID-19 crisis has resulted in delay to the WAHTN review but has also underlined the value of WAHTN as an increasingly important part of the WA medical research sector.

Prof Gary Geelhoed MBBS, FRACP, FACEM, MD October 2020

Chairman's Foreword

As inaugural Chairman of the WAHTN Executive Board I have pleasure in presenting this outline of some of the notable achievements of the WA Health Translation Network (WAHTN) since its inception 5 years ago.

In December 2014 I was invited by the Acting Director-General of the WA Department of Health, Professor Bryant Stokes, to become honorary Independent Chairman of a proposed "Advanced Health Research and Translation Centre for Western Australia". This followed a discussion with me initiated by Professors Peter Thompson and John Challis. A major objective, they explained, was to promote and foster the "translation" of medical research into clinical practice, and greater collaboration between researchers, clinicians and "consumers" – i.e. members of the public who require medical services.

I have always considered that objective to be of the utmost importance for the improvement of treatment in clinical practice. There is no point (obviously) in making advances in medical research unless, when proven and accepted, those advances are utilised in clinical practice in a timely manner. So I was immediately attracted to the concept.

That letter of invitation from Professor Stokes informed me that "The major universities of Western Australia and the Department of Health are entering into a NHMRC program for the recognition of an Advanced Health Research and Translation Centre for Western Australia"; and concluded, "...I believe you would be very supported by both the Department of Health and the universities involved in this important Centre".

I readily accepted the invitation and am glad that I did so, as WAHTN has succeeded beyond expectations. In 2017 it gained recognition by NHMRC as an AHRTC (Advanced Health Research and Translation Centre), a recognition given to only 3 other applicants, out of 20 Centres that applied. Following that, it became a member of the Australian Health Research Alliance (AHRA), formed with the other six AHRTCs plus 3 Centres for Innovation in Regional Health (CIRHs). AHRA was sponsored by NHMRC to consider and address, Australiawide, the special health needs of regional Australia. (WAHTN's present Executive Director is Chairman of that body). And, as this Report explains, WAHTN has drawn together as "partners" all of the major participants in health and medical research, and has been instrumental in establishing a number of important initiatives in that field.

The State Government, in particular the Hon Roger Cook MLA (WA Minister for Health) and Dr David Russell-Weisz (Director General of the WA Department of Health) and their predecessors have throughout been strong supporters of WAHTN, and I thank them for their encouragement, commitment to health research and innovation, and to co-operation between clinical service delivery and research through various funding opportunities. This is for the ultimate benefit of the WA public, and it is to be hoped that the high level of support forecast by Professor Stokes in his letter to me of 4 December 2014 will continue unabated.

The directors (all honorary) of the WAHTN Board have changed over the past 5 years, but all, past and present, have provided invaluable expertise and support from various related aspects of health, not only in research and clinical practice, but in consumer needs, aboriginal health, special regional requirements, and health education. I thank all of them, for contributing their time, energy and knowledge to advance the important objectives of WAHTN.

WAHTN has been most fortunate in having had, in succession over its first 5 years, the services of two eminent, experienced and energetic Executive Directors. In the first 3 years, the Executive Director was Professor John Challis who was previously the Pro Vice-Chancellor for Health and Medical Research at UWA. When he resigned to take up a professorial position in Toronto in 2018, I was disappointed to lose him, but I was delighted when Professor Gary Geelhoed, then Chief Medical Officer of WA accepted the invitation to become the new WAHTN Executive Director.

It is due, in no small part, to the commitment and expertise of these two Executive Directors that WAHTN has achieved so much, and is set to make even greater strides in collaborative health care and research. I sincerely thank both of them for their contributions.

Hinchusken

Malcolm McCusker AC CVO QC October 2020



HISTORY

In 2013, the Strategic Review of Health and Medical Research in Australia – Better Health Through Research (often referred to as the McKeon Report) was published. This report aimed to achieve better health outcomes for Australians by "fundamentally embedding research within healthcare delivery" Number three of its 21 recommendations stated: Establish and fund Integrated Health Research Centres (IHRCs) that combine hospital and community-care networks, universities, and research organisations such as medical research institutes (MRIs).

"The Panel strongly believes that research clusters will be a key driver in embedding research in Australia's health system. In line with this new paradigm of embedded research, the Panel's proposal is for funded Integrated Health Research Centres (IHRCs) to integrate research excellence with healthcare service delivery and facilitate best-practice translation of research directly into healthcare delivery. IHRCs would bring together researchers and educators within universities, MRIs and health services (e.g. Local Health Networks, Medicare Locals, other public and private deliverers of health services and aged-care facilities) and ensure cooperative access to skilled professionals, infrastructure, patients and data and a capacity to implement change."

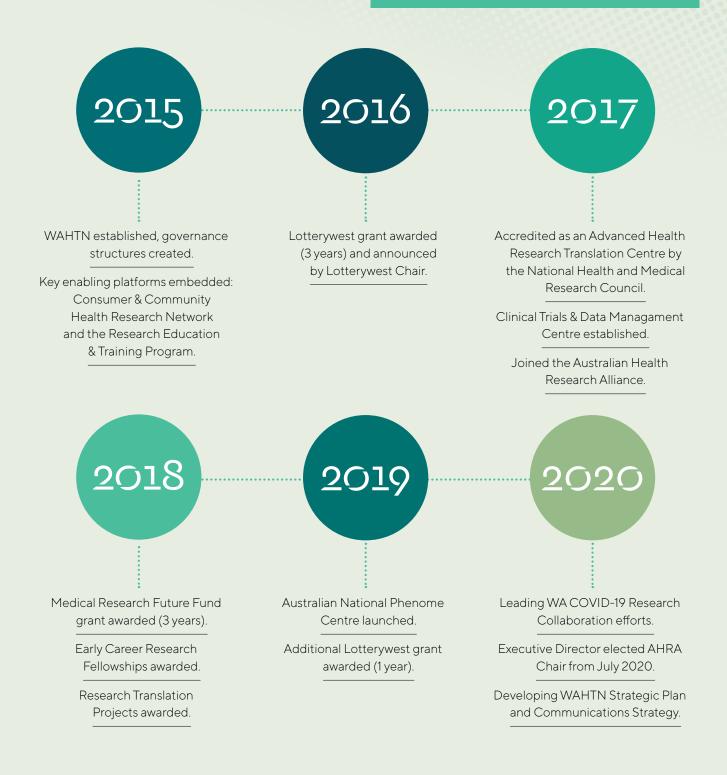
Following the McKeon report recommendation, the National Health and Medical Research Council (NHMRC) in 2014 invited applications for leading centres of collaboration in Australia that excel in the provision of research based health care to be formally recognised as Advanced Health Research and Translation Centres (AHRTCs). In WA twenty partners came together to form the WAHTN. Twelve applications from around Australia were submitted to the NHMRC, eight centres were interviewed and four centres recognised. While unsuccessful in 2015, the WAHTN reapplied and was recognised with two other centres making seven AHRTCs in 2017.

As with similar centres WAHTN is a combination of universities, Medical Research Institutes and health services. The WAHTN, unlike some other centres, has WA Department of Health representation on the Board and regular meetings with the Director General and the Minister for Health.

A brief history

"I am excited about the new opportunities being provided by the WA Health Translation Network to support research and ultimately the patients of Western Australia. While initially supporting research in WA through a number of innovative platforms, the WAHTN is now moving towards a national alliance of similar organisations right across the Nation. I wish the Network well and expect great things in the future."

HON. ROGER COOK MLA, WA DEPUTY PREMIER; MINISTER FOR HEALTH; MENTAL HEALTH



WAHTN Members

Partners

The Western Australian Health Translation Network is a collaboration of 20 state-wide contributing member partners and eight associates which includes WA's five universities, WA Department of Health, Medical Research Institutes, public hospitals, two private hospitals and PathWest.

Members comprise the founding Partners of WAHTN and signatories to the unincorporated joint venture agreement.



Associate Partners

Associates include groups or organisations with related or complementary activities to those of WAHTN, working with WAHTN to broadcast and transfer the knowledge from health and medical research translation into the community and health care delivery system.

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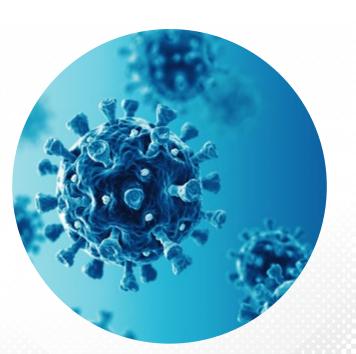




Australian Health Research Alliance (AHRA)

In 2017, a second scheme, Centres for Innovation in Regional Health (CIRHs), was established by the NHMRC to specifically recognise centres that address the population needs of regional Australia. To date, NHMRC has accredited three CIRHs listed below along with the seven AHRTCs (collectively known as the Translation Centres). The Translation Centres have formed the





to collaborate nationally on a number of priorities it has is to encourage excellent health research and translation in Australia by bringing together researchers, healthcare providers, education and training to improve the health and well-being of patients in the populations they serve.



Centre. The WAHTN has established trials and data management, phenomics and has played a critical role in coordinating the early WA research response to the COVID-19 the WAHTN are well-aligned with several patient care and outcomes, and building a

DR DAVID RUSSELL-WEISZ. DIRECTOR GENERAL, WA DEPARTMENT OF HEALTH

AHRA Translation Centres



The Medical Research Future Fund (MRFF), through the Rapid Applied Research Translation (RART) initiative, invests in Translation Centre research projects that encourage academic researchers and health service providers to collaborate to improve health care delivery, services and systems sustainability.

WAHTN received \$222,000 in its first year through the RART scheme and a further \$6.1M for the period of 2019-2021. The Federal Government has shown faith in this new model by including in the 2019 Budget announcement \$218 million over 10 years to the accredited Translation Centres. It has yet to be determined how this money will be divided between the centres but it is anticipated that the tradition of noncompetitive equal division will continue and therefore WAHTN should hope to receive approx. \$2M a year for a further 7 years. RART funding to AHRA is a small portion of total MRFF funding and AHRA and its members may apply for additional funds through appropriate channels. One such example is the Women's Health Initiative which has secured \$5M in Commonwealth funding.

AHRA has formed national steering committees with WAHTN representation to address system-wide priorities that are supported by the transformative MRFF RART scheme: (https://wahtn.org/activities/nationalcollaborative-projects). The National System Level Initiatives and National Networks are:

- Wound Care (WAHTN co-leading).
- Consumer and Community Involvement (CCI) in research (WAHTN co-leading).
- · Indigenous Research(er) Capacity Building.
- Health Systems Improvement and Sustainability.
- Data Driven Healthcare.
- Clinical Research Facilitation.
- Aged Care Research and Impact Network.
- Women's Health.

WAHTN Early Developments

The legal structure of the WAHTN was established as and remains an Unincorporated Joint Venture. A Centre Agent Agreement between the WAHTN and The University of Western Australia was established and remains in place.

From the beginning it was agreed the WAHTN should value add to the already impressive work of individual partners by: playing the role of "honest broker"; supporting researchers by establishing platforms accessible to and for the benefit of all partners; to bring together working groups to advance areas of mutual interest; and to advocate for the research sector as a whole. The cumulative impact of WAHTN's activities will over time result in better health outcomes for West Australians.

WAHTN Platforms

Research Education and Training Program (RETProgram)

Research in the health sector is an essential component for the continual improvement of clinical practice and quality training, directly contributes to the health and wellbeing of patients and improves efficiencies in healthcare delivery. The benefits of a well-trained health research workforce include a higher standard of meaningful research projects, a greater likelihood of successful implementation and completion of research, and most importantly, better health outcomes for study participants and the broader Australian community.

The RETProgram (https://retprogram.org/) was established to provide accessible online research education to allow health profession students, clinicians and scientific researchers to up-skill and maintain current standards and practices. Through the RETProgram they can improve efficiency in planning, designing, implementing and translating research into policy and practice.

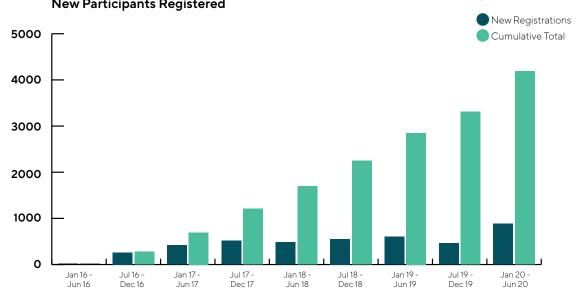
Since 2015 a suite of online tailored education modules has been developed. The RETProgram currently has eleven online education and training courses, some of which contain multiple modules ranging from 1-3 hours duration. The self-paced learning modules are designed to meet accreditation standards (e.g. Good Clinical Practice is TransCelerate approved) with completion certificates. A Steering Committee guides the strategic direction of the curriculum, delivery and evaluation of

the program, which is designed to deliver key information about the whole research process. Users have open access to enable training to be undertaken at a time convenient to the user. Access to modules is free for users based at WAHTN partner organisations, while external users and Commonwealth funded university students pay a nominal charge to support the program.

Metrics are collected to measure the outcomes and significance of the program. There are cumulatively over 4,000 enrolled users from institutions across Australia:

- Participant numbers continue to increase in all modules with 7,069 course registrations from 4,075 individuals at 30 June 2020.
- Participants are affiliated with 272 health and medical organisations (health services, medical research institutes and universities), 84% from WA and 16% externally.
- RETProgram modules have recently been embedded into the curriculum of The University of Western Australia (Faculty of Medicine) Dentistry, Pharmacy and Allied Health degrees.
- Those completing the courses have rated them an average of 4.25 out of a possible 5.

In 2020, an external independent review of RETProgram is planned. This will help inform a business case to establish a state wide Research Education Platform of which RETProgram will be an important part.

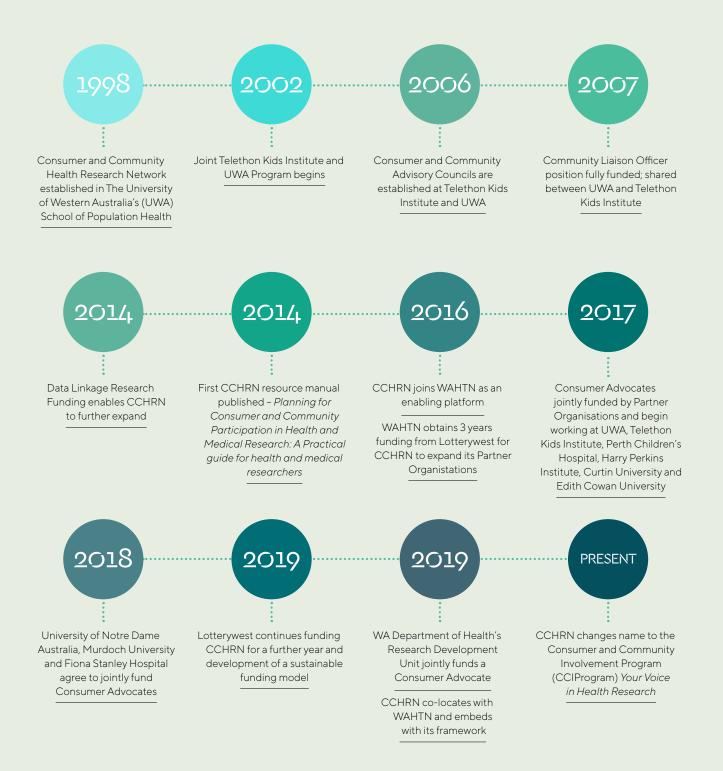


New Participants Registered

Consumer and Community Involvement Program (CCIProgram)

Formerly the Consumer and Community Health Research Network (CCHRN)

A brief history



"Health research in WA has a long and proud history, but the future looks even more exciting. The WA Health Translation Network is a critical part of that future, as an enabler that maximises the benefits of research to our health system, and to the health of West Australians."

PROFESSOR JONATHAN CARAPETIS AM, DIRECTOR, TELETHON KIDS INSTITUTE



The Consumer and Community Involvement Program (https://cciprogram.org/) was established to increase the community voice in research and to work with researchers and organisations to address the barriers to consumer and community involvement (CCI) in health and medical research.

Governments, funding bodies and research organisations across the world are increasingly recognising the importance of including the 'lived experiences', values and priorities of consumers and community members into research policies and practice. Consumer involvement embedded throughout the research process is now a key requirement of applications being submitted to the NHMRC, MRFF and other major funding bodies. WA is well placed to continue its leading role in this space as the CCIProgram has established itself alongside major international bodies in the UK, USA and Canada as one of the foremost organisations leading the CCI agenda.

The CCIProgram activities are guided by a program of work which has six core components: advocacy and advice; building the evidence; community and stakeholder interaction; governance and services; methods of involvement; and teaching and training. The activities are undertaken by two teams; the CCI Coordinator team and a Development team. CCI Coordinators work directly with WAHTN partners to link researchers and their initiatives to those with lived experience and community members. The CCI Coordinator model has become an extremely useful, sought after, and essential part of the WA research environment.

The Development team works to build the capacity of WAHTN partners and community through the provision of: training and workshop programs; resource development and updates; a website platform; a consumer matching service which draws from a large consumer membership; and connecting community with opportunities to 'capture their voices' in the health and wellbeing sector. The CCIProgram has over 2,250 members and since 2009 has facilitated 118 training workshops with 2,092 participants, designed to increase consumer and community involvement in research. The success of the CCIProgram's 2016-2019 strategic framework is demonstrated by the increased uptake of its services and activities over this time.

While generously funded by Lotterywest for the first four years, the CCI Program is successfully transitioning to a more sustainable model with participating WAHTN members increasingly endorsing the model by funding their CCI Coordinators.

Clinical Trials and Data Management Centre (CTDMC)

With clinical trials increasingly more complex and important in a modern health care system an early priority of the WAHTN was the establishment of a centralised support service.

As such the Clinical Trials and Data Management Centre (https://wahtn.org/platforms/clinical-trials-data-centre/) was established and commenced in 2018 with funding in part from the WA Department of Health and Curtin University. The CTDMC aims to enhance clinical trials and related data management in WA by bringing clinical trialists and data management expertise together to increase skill in sponsoring, administering and governing clinical trials, thereby enabling WA to participate as equal partner in large scale clinical trials, and national and international trial networks.

The WAHTN-wide entity shares expertise in clinical trial study design (including novel designs), clinical trial conduct, data management, data-linkage, analytical techniques for clinical trial datasets, bio- repository techniques and clinical registry datasets.

In 2018, the CTDMC consulted with WAHTN partners to identify areas where processes could be improved in the conduct of clinical trials in WA, these included: biostatistical support; improved training in ethics and governance processes, electronic data capture options, and resources available to junior researchers. The CTDMC is addressing these issues by:

- Developing a biostatistical support model for researchers in WA.
- Providing workshops and on-site training in clinical trials, ethics and governance processes, data management and data capture platforms (including REDCap software training).
- Working with CCIProgram and RETProgram to ensure consumer engagement and Good Clinical Practice is embedded in the conduct of all clinical trials.
- Facilitating Clinical Trial Forums for senior clinical trialists to share their knowledge of active trials and facilitate networking for junior trialists.
- Establishing databases for clinical trials and registries (e.g. cardiac registry).
- Assisting researchers in the submission of grants to NHMRC.



Science on the Swan (SOTS)

The formation of the WAHTN and the recognition that collaboration between WA researchers and institutions would benefit all, led to the establishment in 2015 of the now annual Science on the Swan (SOTS) conference (https://wahtn.org/ activities/science-on-the-swan/).

It was reasoned that having the WAHTN partners coming together to both plan and participate in the conference would greatly accelerate collaboration between partners. While the organising committee has wide representation from the WAHTN members, each year various partners combine to take the lead in both organising and setting the theme for that year. The most recent SOTS was held from 5-7 June 2019 at The Westin Hotel. The theme was Neuroscience & the Senses - Healthy Ageing across the Life Course with topics including pain, vision, hearing, ageing, cognitive decline, cancer research and innovations being developed locally in the area of the senses, with special attention given to the journey from laboratory benchtop to patient bedside. Highly soughtafter British television presenter, Dr Michael Mosley, presented the keynote address with introductions being made by Nobel Laureate, Professor Barry Marshall.

Although there is a different theme or emphasis each year, the SOTS aims to appeal to clinicians and researchers broadly in keeping with WAHTN's charter. This approach combined with attracting headline national and international speakers has resulted in the conference increasing in numbers and influence over the last five years. Unfortunately SOTS 2020 has been postponed for a year due to the COVID-19 pandemic.

Australian National Phenome Centre (ANPC)

The ANPC (www.murdoch.edu.au/research/ anpc) was officially launched on 4 October 2019, its success due to unprecedented levels of collaboration across WAHTN partners.

Led by Murdoch University and housed in the Harry Perkins Institute of Medical Research (South), the ANPC is now supported by the State and Federal governments, the Australian Research Council (ARC), WAHTN, and several Western Australian universities and research institutes.

The human phenotype (the outward expression of our genes in each individual) is known as phenomics. The human phenotype captures information of both human biochemistry (as in blood, urine or tissue) and the influence of the microbiome (such as our gut bacteria). This allows an offering of new insights into the changes caused by diseases or exposure to external agents such as the environment, diet or lifestyle choices.

The WAHTN worked with our partner organisations along with the WA State Government and the ARC to bring together multiple funding sources to attract world class personnel with the right expertise to build the ANPC based at Murdoch University. The ANPC is the nation's first phenome hub. It has been created to enhance large scale metabolic phenotyping research in Australia and the region; and build collaboration and training activities focused on the clinical and health sciences. It is affiliated with the International Phenome Centre Network and shares an interest in building a global infrastructure around harmonised research information, data, methods, and technologies. By standardising techniques the findings and subsequent benefits can be shared worldwide.

The development of the ANPC allows Australian scientists to be part of the global research effort working to transform health and improve disease prevention, detection and treatment. Large scale metabolic phenotyping data will greatly advance precision medicine by enabling better understanding of the dynamic interactions between our genes, environments, microbiomes, diets and lifestyles across populations.



Clinical Streams

While WAHTN supports a number of clinical streams through membership of clinical disease focused Institutes such as the Lions Eye Institute, Ear Science Institute Australia and the Perron Institute for Neurological and Translational Science, the growing influence and stature of the WAHTN has led to various clinical research groups asking to be recognised and supported by, or affiliated with, the WAHTN.

Emergency Medicine Research and Innovation Alliance (EMRIA)

While Emergency Medicine in WA has produced consistent and important research there has been a growing sense that a more formalised collaboration would be more productive. Recently this has led to the formation of the Emergency Medicine Research and Innovation Alliance (EMRIA). Collaboration with WAHTN as a formal association is being explored, with potential assistance with secretariat, website hosting, fund-holding, networking assistance etc. WAHTN will be offered an Executive Committee member position.

WAHTN Allied Health Enabling Platform

It was recognised that the allied health and health science (Allied Health) workforce is a diverse group of professionals with no overarching research structure to support a critical mass in research and knowledge translation. The inter-disciplinary collaboration with allied health however was recognised as important to the WAHTN receiving NHMRC accreditation as an Advanced Health Research and Translation Centre. The creation of the WAHTN was seen as an opportunity for this diverse group to come together for the first time on a state wide basis. The WAHTN Allied Health Enabling Platform met for the first time on 15 November 2018. The Allied Health and Health Sciences Research and Knowledge Translation: Strategic Framework (Strategic Plan) was developed to guide development of research knowledge and translation capacity and culture amongst Allied Health. The strategic plan is the basis upon which WAHTN Allied Health Enabling Platform was developed and guides all capacity building initiatives.

Other Activities

Distinguished Visitor Professor Series

To date, WAHTN has co-hosted four Visiting Professor Series with the UWA School of Population and Global Health, as detailed below. These visits have involved the key note speaker delivering a state of the art lecture, accompanied by workshops, forums, small working group collaborations and meetings.

- 2016 Professor Geoffrey Hammond from the University of British Columbia "Plasma Steroid- binding Proteins: Gatekeepers of Steroid Hormone Action" (various seminars held across the WAHTN Partner Organisations over 5 days).
- 2017 Professor John Frank from the University of Edinburgh and Scottish Collaboration for Public Health Research and Policy "Critical Appraisal for Public Health" course (held over 5 days).
- 2018 Professor Matthew Fox from Boston University "Advanced Epidemiology" course (held over 5 days).
- 2019 Professor Merrick Zwarenstein from Western University Ontario "Designing Pragmatic Randomised Controlled Trial" (held over 4 days).

Scientist Knowledge Translation Training Course

WAHTN hosted three Scientist Knowledge Translation Training workshops, presented by Melanie Barwick, University of Toronto, and Tamika Heiden, Knowledge Translation Australia. The course is aimed at scientists (basic, clinical, health services, population health) as well as educators, clinicians and Knowledge Translation (KT) professionals (e.g. KT Specialists, KT Managers, Knowledge Brokers). While the focus was on health, the material is highly relevant to individuals working in other sectors. The workshops held in 2016, 2017 and 2018 were fully subscribed and well received by participants.

"Whilst Western Australia covers a huge geography, our population is relatively small. It is therefore vital that all research partners work collectively together to ensure that WA punches above its weight in the research space."

MR PAUL FORDEN, CHIEF EXECUTIVE, SOUTH METROPOLITAN HEALTH SERVICE

Australia-Israel Chamber of Commerce(WA) Events and Trade Delegation

WAHTN has supported an annual WA Australian Israel Chamber of Commerce (AICC) event for the past 5 years. These events usually involve a key speaker and focus on innovative healthcare. The events are usually well attended by the WA health and medical research sector. WAHTN has supported the following events:

- 2016 Professor Anne Kelso AO, Chief Executive Officer, National Health and Medical Research Council "Medical Research in the 21st Century" held on 21 July 2016.
- 2017 The Hon Roger Cook MLA, WA Minister for Health, provided the key note address on behalf of the State Government, held on 6 December 2017.
- 2018 Professor Jeremy Nicholson, Australian National Phenome Centre "Phenomenal Phenomics – placing WA at the centre of the globe" held on 3 October 2018, in collaboration with Murdoch University.
- 2019 The Hon Roger Cook MLA, Deputy Premier of Western Australia, Minister for Health; Mental Health, Member for Kwinana, Government of Western Australia speaking on "New Horizons for Health Research and Innovation in Western Australia", held on 22 August 2019.
- 2020 Dr David Russell-Weisz and Dr Robyn Lawrence from the WA Department of Health and Dr Asher Salmon, Head of International Relations, Israel Ministry of Health "Fighting the War against COVID-19" held on 29 July 2020.

In addition to the above events, the WAHTN Executive Director Prof Gary Geelhoed was part of a large health and medical innovation AICC(WA) trade delegation to Israel which occurred in May 2019. The delegation was led by Deputy Premier and Minister for Health and Mental Health, Hon Roger Cook MLA. At the 2019 AICC(WA) annual event held on 22 August Minister Cook, alongside delegation participants, shared their experiences and learnings, with a focus on further health research and innovation sector development for Western Australia. Prof Gary Geelhoed, representing WAHTN as the event co-sponsor, was Master of Ceremonies. Ongoing meetings are occurring as a result of the momentum created by the trip. WAHTN has been charged with driving this on-going initiative.

Key impacts that showcase WAHTN's integral role as "honest broker"

The role of WAHTN as a neutral honest broker has been integral to the successful progression of a number of initiatives and an example of how WAHTN can coordinate and facilitate a collaborative approach to statewide initiatives. Examples of these successes in 2019 are:

Medical Imaging Funding

In 2018, WAHTN established a Medical Imaging Working Group to source sufficient matched funding across the Partner network to expand the National Imaging Facility (NIF) infrastructure located in Western Australia. The expansion will dramatically improve the biomedical research imaging capability of the state, by providing for the first time, state-of-the art imaging equipment dedicated for human research, and by strengthening the existing preclinical imaging facilities at the current WA NIF node. This expansion will enable Western Australia to not only conduct leading edge research, but also to compete effectively against the other states for international tertiary students and research project funding. The equipment is highly enabling for translational research, and has broad applicability across all key medical fields, including in particular Oncology, Neurology and Cardiology. This expansion is a first step to building Western Australia's capabilities, and if successfully implemented, is expected to increase opportunity for future federal imaging funding.

The expansion is made up of:

- A new 3T Human MRI.
- A new Human PET-CT scanner.
- An upgrade to the existing 9.5T preclinical PET-CT.
- Research support to the Good Manufacturing Practice project for PET radiopharmaceuticals.

Importantly, NIF is a National Collaborative Research Infrastructure Strategy (NCRIS) project. NCRIS recognises that efficient use of research infrastructure requires highly-qualified staff to run specialised cutting-edge equipment, therefore this important medical research equipment will be supported by expert staff to assist and train researchers, including research students. The facilities in the NIF WA node are available to all researchers and are provided at the lowest sustainable cost, with transparent and equitable access for researchers irrespective of their organisation, including industry users.

Neuroscience Strategic Plan

The idea of developing a Neuroscience Research Plan for WA (Plan) has gained considerable interest in the past few years. The establishment of the WAHTN, the Sarich Neuroscience Research Centre and the Perron Institute for Neurological and Translational Science has facilitated the coalescence of robust leadership around such a Plan. The vision is to achieve a state-wide plan for neuroscience research that:

- Optimises health outcomes.
- · Maximises the efficient use of limited resources.
- · Advances neurological research in Western Australia.
- Positions Western Australia as national and global
- leader in this unique type of collaborative approach.Reflects a genuine collaboration between all stakeholder groups, which will work together to
- co-design the Plan.Meaningfully engages all key stakeholders as genuine partners.
- · Achieves a measurable collective impact.
- Maximises the return on cash and non-cash investment.
- Sets an agreed long-term 5 to 10-year Plan that is underpinned by a realistic, achievable and sustainable business model.

The goal is to achieve an integrated program of neuroscience research excellence that is co-designed by the key stakeholder groups and is underpinned by a collaborative approach to:

- Planning the research.
- Undertaking the research.
- Resourcing the research; and
- Bringing the benefits of the research to consumers: https://wahtn.org/activities/statewide-projects/ neurosciences/

This plan is being progressed under the auspices of WAHTN given its broad membership and mission.

"Over the past 5 years, the WAHTN has had a critical role in bringing together researchers across the state and supporting research through education, training and grants. As the honest broker in proceedings it has made possible numerous activities that would not otherwise have occurred and has demonstrated the benefits of a state wide network to translate research into improvements in the health of the community."

DR ARON CHAKERA, RESEARCH DIRECTOR, NORTH METROPOLITAN HEALTH SERVICE

Health Economics

WAHTN is progressing the development of a Health Economics platform (https://wahtn.org/activities/ statewide-projects/health-economics/) which will enhance the efforts to incorporate health economics as a necessary component of translating research into clinical practice. Initial activities include developing two online training modules within the RETProgram, integrating health economics into the Clinical Trials and Data Management Centre platform, developing parallel training programs and recruiting a core cadre of young health economists. The WA Translation and Collaboration in Health Economics (WATCHE) and the WAHTN have worked together to create a website with the aim to increase and support capacity in health economics in research. The website, launched in late 2019, provides key information, links to support, training and resources. https://www.watche.org/

Biostatistics

In 2020, WAHTN has brought together members of the WA biostatistician community and recently awarded two Biostatistician Fellowships as part of its commitment to support emerging talent, build and strengthen research capacity within the WA workforce and deliver high quality translational health research through improved biostatistical analysis within clinical research projects. The two 12-month WAHTN Fellowships are aligned with WAHTN's Clinical Trials and Data Management Centre and supported by funding from the Australian Government's Medical Research Future Fund as part of the Rapid Applied Research Translation program.

The Biostatistician Fellows are provided support and training throughout their fellowship with: mentorship and supervision by a senior Biostatistician to provide guidance and support; and training in biostatistical consulting from one of the Perth Biostatistical Consulting Services. This will enable them to develop their skills in consulting with clinical researchers, to provide statistical support to WAHTN Partner organisations and build future collaborations to progress from pure consultancy to being valued research team members (https://wahtn.org/ activities/statewide-projects/biostatistics/).

Biobanking

A biobank is a type of biorepository that stores biological samples (usually human) for use in research. Since the late 1990s biobanks, in WA as elsewhere, have become an important resource in medical research, supporting many types of contemporary research like genomics and personalised medicine. In WA the approach has been often at an institutional or even individual level. Increasingly however it has been recognised that there are advantages in a more coordinated approach in terms of cooperation, economies of scale and standardisation of processes.

Given WAHTN's broad remit we have been working with our member organisations to add value to the WA biobanking scene. This work has involved a survey to establish a record of WA biobanks as well as to gauge interest in greater coordination between the various groups. Subcommittees have been working on Governance, Ethics, Quality Assurance, Data Management and Infrastructure to better standardise the workings of biobanks in WA. We successfully trialled the open source product OpenSpecimen through the Telethon Kids Institute and the Origins study and have created a directory of WA biobanks on the WAHTN website (https://wahtn.org/activities/statewide-projects/ biobanking/). A WA Biobank Steering Committee has been established and we are in talks with OpenSpecimen to negotiate transfer of existing biobank information into one standardised WA licence. This process was greatly enhanced during the COVID-19 pandemic.

Legislation

In 2018, following a change in the governance of the WA public health system a new interpretation of the Guardianship Act of 1990 resulted in research projects involving patients who could not give consent being halted. This caused great concern within the WA research community. With the backing of WA researchers WAHTN, being an independent body, was able to directly communicate with the State Solicitor and later attended meetings with the Attorney General and Minister for Health. Lobbying by the WAHTN partners contributed to new legislation in 2020 that addresses the concerns of clinicians and researchers while protecting research subjects.

WAHTN has also been approached by Government to organise workshops for consumers and researchers to provide feedback on proposed new Privacy and Data Legislation.

Various staff of WAHTN including from the CCIProgram contributed to workshops helping to inform the Future Health Research Innovation Fund.

Increasingly, WAHTN has been asked to organise or assist with meetings of national bodies or individuals when coming to WA, including MRFF, NHMRC, Centre for Commercialisation of Regenerative Medicine (CCRM).

The WAHTN meets regularly with the head of the WA Department of Health Research and Innovation Office, the Assistant Director General of Clinical Excellence, the Director General for Health and the Minister for Health.

WAHTN COVID-19 Research Collaboration

The worldwide COVID-19 pandemic has had profound effects throughout society including the health and research sectors. The early recognition that coordination and leadership was needed in the WA research response resulted in WAHTN playing a vital role.

In March 2020 WAHTN was tasked by the WA Minister for Health, the Hon. Roger Cook MLA and the WA Department of Health, with coordinating a medical research sector wide response to the COVID-19 threat. The need for WA to act swiftly and decisively was crucial, as the global impact of COVID-19 was considered profound with severe implications for the health of Western Australians and the economy. As the only body engaging across the research sector, the WAHTN was well placed to coordinate the various research streams, coordinate funding from government, other agencies and philanthropy, and ensure that funded research is relevant, timely and coordinated. On the 23rd of March 2020 the WAHTN called an online one off meeting of WA researchers to address the challenge of COVID-19. Such was the success of the meeting that weekly meetings were held of over 40 researchers for the next seven months. \$3M of Health Department funding was allocated through WAHTN for research and research infrastructure coordinated with \$5M allocated from other government departments to WA Universities and locally allocated funds from research foundations.

The WA COVID-19 Research Collaboration was a statewide collaborative response brought together under the WAHTN. The group comprised of senior clinicians, researchers, administrators and consumer groups working together to develop workable, ready solutions to the pandemic and to examine community and mental health impacts of COVID-19. Existing initiatives in standardisation of data collection, biobanking and consent were accelerated during this time.

The group worked together quickly and cooperatively to identify existing clinical trials that, with an immediate injection of resources, could be accelerated to deliver solutions in existing hospital sites and, as a matter of equity, expanded to other hospitals. The successful "flattening of the curve" in WA has as of July 2020 rendered those trials superfluous as of October 2020.

The collaboration improved existing support platforms and created new ones to support both existing clinical trials and also new and emerging research made possible by increased funding in response to the crisis.

An early goal of this collaboration in WA was to rapidly provide the infrastructure and research needed to ensure all Western Australians had the opportunity to participate in world-leading research and clinical trials targeted at combating COVID-19, giving them the best chance of recovery. At the time of writing with no cases in WA this approach is academic. Over time however, as WA responds to COVID-19 with social, commercial and economic changes, new research priorities are presenting around mental health and how best to safely reverse societal restrictions.

Along with providing vital information and infrastructure for current research strategies, this work will also inform and support our approach to future pandemics.

A dedicated web page on the WAHTN website was created as a resource for the WA research community https://wahtn.org/wa-covid-19-research-collaboration/.

Fellowships and Grants

WAHTN Transformative Translational Research Projects (MRFF funded activities)

To date the WAHTN has been awarded a total of \$6.32 million from the MRFF Rapid Applied Research Translation (RART) funding scheme to support translational research, innovation, education and training to improve the healthcare of Western Australians.

This grant process has occurred in three stages to ensure both 2016-2018 (Round 1 & 2.1) and 2018-2020 (Round 2.2) MRFF priorities were addressed. In 2019 with funding from Round 2.1, 11 leading Western Australian early career researchers were awarded a 12-month WAHTN Early Career Fellowship to undertake translational research projects. This initiative was supported in part by \$1 million in funding from the MRFF with matched funding from the Fellow's affiliated organisation.

The Fellowships were awarded to:

- Research-focused clinicians and health care professionals with less than 10 years' post primary degree or within 5 years of a postgraduate degree, with consideration for career breaks. With emphasis placed on supporting Allied Health, Biostatistician and Health Economists.
- Projects that demonstrated collaboration; community and consumers involvement; aligned with MRFF priority areas; improved health care, health systems, health policy and/or public health.

Fellows were provided salary support for a part-time or full-time position, and paired with a mentor from the WAHTN Management Committee to guide, support, connect and enhance their experience throughout the year. Details of the projects and successful recipients can be found here: https://wahtn.org/activities/fellowships/

As part of Round 2.2 funding, two Biostatistician Fellowships have been awarded and Specific Fellowships in Wound Care, Aboriginal Health and Antimicrobial Resistance are being developed.

With Round 2.2 funding the WAHTN also allocated \$2.84 million to support WAHTN's Health Service Translational Research Projects (HSTRP) initiative. The HSTRP initiative has provided funding for 12 projects over two years from July 2019 – June 2021 with a requirement for matched funding and involvement from the corresponding WAHTN Partner organisations. The program was divided into two separate application rounds, involving:

1. The five WA Health Service Providers (HSPs) who each received funding for 2 projects (10 projects in total):

- Child and Adolescent Health Service (CAHS).
- East Metropolitan Health Service (EMHS).
- North Metropolitan Health Service (NMHS).
- South Metropolitan Health Service (SMHS).
- WA Country Health Service (WACHS).

2. PathWest, WA Primary Health Alliance (WAPHA) and WAHTN Partners from the Private Health Sector who were eligible for funding of another 2 projects. A single competitive process was undertaken with all submissions in this category being reviewed by the WAHTN HSTRP Review Panel.

The 2-year grants were designed to support WA health service translational research projects which have the ability to produce outcomes of value to the health system; be rapidly translational; and align with the MRFF 2016-18 or 2018-2020 Priorities and the MRFF RART program priorities, namely the projects should be:

- Implemented within a short timeframe and have impacts that are measurable, meaningful and sustainable.
- Have research findings that are scalable with long term, ongoing value for patients.
- Collaborative; involving a multidisciplinary team (including biostatistician and health economist input).
- Involve consumers at all relevant stages of the project including design and documentation.
- Align with health service priority areas, primary care and/or public health.

These projects are still underway at the time of writing this review. The resulting research findings, outcomes and translational knowledge will be reported by each grant recipient and summaries of these projects will be made available through the WAHTN website at the conclusion of the grant agreement period.

We thank all the various panel members who have assisted WAHTN in the allocation of funding for research proposals and Fellowships.

Collaborators / Affiliations

WAHTN has worked with numerous collaborators outside of our partner membership over the past five years. These include close collaborations with the Cancer Council WA, Perth Blood Institute, Pluslife, Silver Chain, Stan Perron Trust, Telethon Trust, Aboriginal Advisory Council of Western Australia, Wise Realities, MTPConnect, Brandon Capital, City of Perth, Lotterywest, St John Ambulance, Health Consumers' Council WA and the Australia-Israel Chamber of Commerce (AICC).

Other Networks

WAHTN has worked collaboratively with and promoted the activities of several health and medical research aligned networks over the past five years. These include close collaborations with Ausbiotech, Australian Clinical Trials Alliance (ACTA), Australian Health Research Alliance (AHRA), Population Health Research Network (PHRN), Western Australian Cardiovascular Research Alliance (WACRA), CT:IQ, Centre for Commercialisation of Regenerative Medicine (CCRM), and Research Australia.

Medical Foundations

WAHTN has also worked closely with the Health Service Research Foundations, namely Spinnaker Health Research Foundation, Charlies Foundation for Research, RPH Research Foundation and PCH Foundation, to cross promote activities and co-fund initiatives where feasible.



PROFESSOR EEVA LEINONEN, VICE CHANCELLOR, MURDOCH UNIVERSITY

Where to from here?

Over the past five years the WAHTN has united the WA medical research community with the aim to facilitate opportunities, catalyse ideas and unify stakeholders. The substantial MRFF funding of \$6.3 million awarded to WAHTN, with the potential of a further \$14 million over the next seven years, suggests the WAHTN was a worthwhile investment.

The positive experience of the WAHTN, captured within this document justifies the decision by WA health and medical organisations to form WAHTN and to apply for formal recognition by the NHMRC as an AHRTC. We believe the broad and growing influence and achievements of the WAHTN as a unifying body, especially during the COVID-19 crisis, will encourage the WAHTN partners to ensure it continues and is sufficiently supported and resourced to achieve its full potential.

WAHTN, a joint venture funded and owned by its membership, has produced a significant body of work over a relatively short time, and collectively we should be proud of these achievements. To move forward however, this collaboration will need enhanced financial security and engaged, strategic support from its partners in order to continue its mission to facilitate, coordinate and advocate for translational health and medical research in WA. Although WAHTN, as an NHMRC-accredited AHRTC, can access and distribute MRFF funding for translational research projects and initiatives under the RART scheme, it has no means of supporting its core and platform staff without the committed financial support from its partner organisations.

Five years on is a timely point to reflect on successes and weaknesses. While the WAHTN is proud of its achievements to date, the journey has not been easy. WAHTN has a small core contingent of staff of 3.4 FTE and relies on the commitment and goodwill of its broader membership to provide representation, leadership, intellectual input, and workforce to support WAHTN led state and national initiatives. To build on past achievements and better prepare for the future WAHTN is currently going through a process of self-reflection informed by surveys and interviews of our partners and stakeholders to examine our governance structures and to formulate strategy for the next five years informed by the Sustainable Health Review.

Recommendation 29 of the Sustainable Health Review states: Ensure that future research activities and investments are linked to the priorities of the WA health system and are actively translated into practice.

Medical research in WA is poised to increase over the next ten years with individual WAHTN partners recognised for cutting edge research, federal and state funding essentially doubling and a State Government committed to innovation and the further merging of clinical service delivery and research. WAHTN is proud and committed to play a crucial role in this ongoing transformation by harnessing the collective efforts of its many partners to provide better health care for all West Australians

