Government of **Western Australia**
Department of **Health**

Executive Summary Report and Recommendations

Transforming Teaching, Training and Research

Clinical Senate of Western Australia

3 June 2016

better health ▪ better care ▪ better value

Executive Summary

The second meeting of the Clinical Senate of Western Australia for 2016 was held on 3 June at the University Club of WA.

The topic for debate was “Transforming Teaching, Training and Research”.

The enactment of The Health Services Bill 2016 has led to changes in governance for WA Health whose role is as system manager. The Health Services have become separate statutory authorities governed by a Board or Chief Executive, with greater responsibility for delivery of health and support services. Under the Health Services Bill 2016 (now the Health Service Act) the Department of Health, led by the Director General (DG), will become the System Manager responsible for the overall management and strategic direction of WA Health. The DG can issue binding policy frameworks for Health Service Providers (HSPs) to ensure a consistent approach to matters across the WA Health system. HSPs will be responsible for the establishment of local policy for their services, consistent with the relevant policy frameworks. There are 18 policy frameworks in total and the two relating to i) Clinical Teaching and Training and ii) Research informed Senate discussions on the day.

The Health Service Act supports WA Health’s vision to deliver a safe, high quality, sustainable health system for all Western Australians including:

- to promote and protect the health status of Western Australians
- to identify and respond to opportunities to reduce inequities in the health status
- to provide access to safe, high quality, evidence-based health services
- to promote a patient-centred continuum of care in the provision of health services
- to coordinate the provision of an integrated system of health services and health policies
- to promote effectiveness, efficiency and innovation in the provision of health services and teaching, training, research and other services within the available resources
- to engage and support the health workforce in the planning and provision of health services and teaching, training, research and other services.

The benefits for patients, workforce and the community include the delivery of better health, better care and better value through:

- Improved accountability to the community
- More responsive, flexible and innovative health services to the community
- Greater transparency and assurance of safety and quality of health services
- A more sustainable health system strengthened financial management and business intelligence so that resources are allocated fairly and used efficiently to deliver the best in health outcomes.

As per section 4.7 of the Independent Hospital Pricing Authority (IHPA): The Pricing for Australian Public Hospital Services 2016-17 states there is currently no acceptable classification system for Teaching Training and Research (TTR), nor are there mature, nationally consistent data collections for activity or cost data.

The new guidelines identify that: TTR activities represent an important role of the public hospital system alongside the provision of care to patients. However, there is currently no acceptable classification system for TTR, nor are there mature, nationally consistent data collections for activity or cost data which would allow the IHPA to price TTR using activity based funding (ABF).

The National Health Reform Agreement requires that IHPA provide advice to the Council of Australian Governments (COAG) Health Council on the feasibility of transitioning funding for

TTR to an ABF system by 30 June 2018. IHPA has proceeded to the next step of developing a TTR classification by undertaking a comprehensive TTR costing study at a representative sample of public hospitals. The study will run until early 2016, after which work will commence on the development of a teaching and training classification system. [1]

The Clinical Senate had previously debated each of these areas however, given the current climate, the Clinical Senate executive, along with the Chief Health Officers, deemed it timely to debate TTR to ensure it remained on the reform agenda.

The specific focus for debate was optimising investment and transparency for TTR. Teaching the next generation, Training the current clinical workforce and ensuring the value add of Research. With this focus, Clinicians considered how to articulate the value and better optimise the investment in our health system to achieve reform.

The co-sponsors for the debate were Professor Gary Geelhoed, Chief Medical Officer and Assistant Director General, Clinical Services and Research, Adjunct Associate Professor Karen Bradley, Chief Nurse and Midwifery Officer and Ms Dianne Bianchini, Chief Health Professions Officer.

A broad range of experts were invited to the debate. Included were leading multidisciplinary academics from all five WA universities, vocational, research and training institutes as well a cross section of clinicians and key health department personnel.

The opening session

The meeting was opened by Nyungar Elder, Ms Marie Taylor, who offered a Traditional blessing. She spoke of the significance of reconciliation week sharing a story of Yellagonga meeting the English settlers demonstrating that reconciliation happens when two people of different races meet for the first time and find common ground. She reminded that we are one people.

Professor Julie Quinlivan, Chair of the Clinical Senate opened her talk by emphasising the importance of the topic and asked senators to consider how we transform TTR in light of the new health service legislation to maximise advances in health care.

In speaking of teaching and training she shared this quote:

> We look for medicine to be an orderly field of knowledge and procedure. But it is not. It is an imperfect science, an enterprise of constantly changing knowledge, uncertain information, fallible individuals, and at the same time lives on the line. There is science in what we do, yes, but also habit, intuition, and sometimes plain old guessing. The gap between what we know and what we aim for persists. And this gap complicates everything we do.
>
> Atul Gawande, Complications: A Surgeon's Notes on an Imperfect Science.

The quote emphasized the complexity of modern medicine. We need to train the next generation of healthcare staff, making sure their knowledge and skills reflect the advances in technology, and also addresses increasingly complex ethical, social, psychological and cultural aspects of healthcare.

Prof Quinlivan stated there are increasing challenges in keeping our current workforce trained, ensuring they make the best use of clinical evidence and how we train our workforce to follow guidelines that have substantial evidence base behind them. We must also consider if our

[1] Independent Hospital Pricing Authority (IHPA) (2015), 'The Pricing Framework for Australian Public Hospital Services 2016-17'. Commonwealth of Australia, 2015. Page 19. [Viewed 1 July 2016] Available at URL: https://www.ihpa.gov.au/sites/g/files/net636/f/publications/pricing_framework_2016-17_0.pdf

training techniques, used over many decades are best to keep staff up to date with advances in care. She presented another quote for consideration:

> If you put me in charge of the medical research budget, I would cancel all primary research, I would cancel all new trials, for just one year, and I would spend the money exclusively on making sure that we make the best possible use of the clinical evidence that we already have."

In speaking to research (the 'R'), she stated research is the cornerstone to improvements in care. We have an obligation to future generations to continue to identify better, cheaper more effective and safer ways to diagnose, treat, cure or palliate our patients. We need to find ways to better the health care of society as a whole. Research is essential to moving forward to advances. How do we ensure research continues, and is relevant and achieves the outcomes we need when we face times of budgetary and workload pressures?

She called on senators to work together and use their collective multi-disciplinary skill sets to help identify how to optimise investment in our health system to achieve reform, and articulate the value of TTR into the future.

Director General, Dr David Russell-Weisz stated there couldn't be a more important time to look at TTR. We are in a mature environment of Activity Based Funding (ABF) and we have a robust method of funding and measuring how we perform financially and in relation to quality and safety. TTR is critical to what we do in the health system.

He emphasised the need for a clinical workforce engaged in translating research into practice and stated that it has not been forgotten, there is a TTR budget and we are not uncommitted. Dr Russell-Weisz spoke of the importance of collaboration, outlined the investment by WA Health and emphasised the importance of the research being nearer to care. This is as important as any part of the healthcare budget. He encouraged participants to think outside the box and consider better more innovative ways to do this and quarantine the funds.

In closing, he reminded senators that it was essential for them to consider the impact of the upcoming governance changes specifically, the roles with regard to TTR of both the department and health service providers. The role of the department as system manager responsible for strategic direction and leadership and in securing as much investment as possible from government, within health and outside and, the role of health service providers who as of July 2016 will be legally accountable and responsible for the TTR done in their areas. He asked them to reflect on this when considering recommendations.

Professor Gary Geelhoed, Assistant Director General, Clinical Services and Research and Chief Medical Officer set the scene for debate. He provided an overview of the topic in the context of the current health reforms at a local, state and national level. He described the importance of the timing of the debate on TTR labelling it the perfect storm. These are related to problems with funding, the impact on the state due to the price of iron ore, the impact of ABF funding and several years adjusting to the national efficient price. These coupled with new hospitals, a new area health service and the transition to health service boards are causing tremendous churn through the health system making it difficult to focus on research. He identified the fundamental question for discussion as how to balance the short term needs with the elements required for an excellent health service in the long term.

Prof Geelhoed emphasised the need for innovation particularly given the size and spread of our state and in order to gain equity for all West Australians. Pressures on the system are related to WA being the fastest growing state (2005-2015) in Australia (28.9%) which increases demand on our health services. There has also been unsustainable growth in the health budget rising 134% (3.43bn to 8.05bn). Further growth across our health system indicates: births in WA funded services increased by 36.5%; ED attendances by 49.1%; and mental health community

service contacts rose to 79.3%. Prof Geelhoed stated there is clearly pressure on our system and the challenge is to consider how we articulate value of government investment in TTR in this high-cost and resourced constrained environment.

He overviewed the new governance model and spoke of the semi-autonomous boards and 18 policy frameworks, two of which include Research and Clinical Teaching and Training. Prof Geelhoed reported there is opportunity as the binding policy frameworks clearly spell out the requirements that all HSPs must comply with in order to ensure effective and consistent activity across the WA health system.

The Research Policy Framework specifies the research requirements that all HSPs must comply with in order to ensure effective and consistent research activity across the WA health system. He stated that the policy framework recognises research as a core function and highlighted one of the purposes as to ensure clarity about the expectations for HSPs to support research and encourage its integration into service provision. There are eight key principles that underpin this policy framework, Prof Geelhoed highlighted two of the principles:

- Embedding: wherever feasible, research activities should be integrated as a core function within routine healthcare delivery, to increase opportunities to conduct research; and
- Workforce: champions of academia and research will attract and retain high calibre health professionals who, while producing their own research, will ensure the early introduction to Western Australia of knowledge and advances within their areas of expertise.

Prof Geelhoed stated you do not change by doing the same thing! You need research in order to change. The role of research in the WA public health system is around patient benefits. These must include: improved health outcomes; access to new treatments through clinical trials; and the ability to discard ineffective treatments. Where you stimulate a culture of innovation in the public health system, and generate new knowledge and improve systems. Through new processes, procedures and products and health workforce, you attract and retain high quality staff who are empowered and motivated.

He reported there are also economic benefits with return on investment in some instances to be $1:70 - $5:02 for every dollar spent as well as the potential for increased efficiencies and contribution to a more sustainable health system. The evidence is very clear that if you have a good research culture in a hospital you get better outcomes. “The best hospitals in the world are the best because they do research, and it is not a hobby you engage in at the end of the day, it is core business.”

Prof Geelhoed stated there is optimism because under the new reforms there is recognition of TTR in the Health Services Act. There are mechanisms to ensure TTR focus in HSPs and track performance. The Department will provide ongoing funding for research; and FutureHealth WA has provided an extra $30 million (through 2017).

He outlined the purpose of the Clinical Teaching and Training Policy Framework which is to ensure: clinical teaching and training activity is at a level that ensures future workforce capability and is not limited to current workforce requirements. This policy also has several key principles, for the purpose of debate he highlighted Workforce planning – Ensure that clinical teaching and training activity is relevant and supports short and long term workforce capability, supply and distribution.

To demonstrate the challenges with regard to teaching and training he shared the following data: In WA from 2011 to 2014: student numbers in higher education health-related courses increased by 15%; 55% of activity occurred within a hospital setting; nearly 90% of all activity occurred in the metro area; nursing and medicine accounted for 59% of activity and over 200

sites provided placements across the state. Consistently, he stated 98% of all placement demand came from the 5 local universities. Data on clinical placements by profession indicated that medicine, nursing, midwifery and physiotherapy registered the vast majority (55%) of all placement hours occurred in hospitals. Therefore, he stated there is the need to consider how we could be more innovative in where the placements are and importantly, engage both the private sector and community in order to reduce the strain on the system.

Prof Geelhoed reported tremendous challenges in relation to student numbers particularly for medical graduates with growth over the last ten years from 122 interns (2006) to 331 (2017) and projected to be 426 in 2025 related to the new medical school. This puts great strain on the system and it is challenging to provide vocational training to these students. There are also issues in nursing where there are there are societal demands due to an ageing population and increased numbers of people with complex illnesses which puts a strain on nurses who are ageing themselves. Finally, there is pressure to train and keep them employed in the system for when they are needed.

Prof Geelhoed called on clinicians to consider the constraints and resources available, how we can balance the short term service needs and support the elements that are going to take us forward so that we can continue to have a quality health service, attract the right health workforce and continue to provide better outcomes for our patients.

Professor John Challis, Executive Director of the Western Australian Health Translation Network (WAHTN) spoke of ensuring the value add of research and how the use and development of the WAHTN can help achieve this objective.

He highlighted the benefits of health and medical research linking research investment, knowledge creation towards innovation thus leading to knowledge wealth creation, treatments and polices for improved health care and prevention resulting in healthier Australians.

The WAHTN is a consortium of the Department of Health, the Office of Science, WA health teaching hospitals, medical research institutes, private health providers and all WA universities with a vision to: strengthen the health impacts of our outstanding research discoveries, to build a future legacy of research excellence and translation. Its objectives are to:

- increase the integration, efficiency, success and recognition of health and medical research across WA;
- enhance the translation of outcomes from health and medical research in WA into evidence based practice, policies and innovation opportunities; and
- to achieve national recognition of “Team WA” as an Australian Advanced Health Research Translation Centre (AHRTC).

He stated the National Health and Medical Research Council (NHMRC) defines and AHRTC as “leading centres of collaboration in health and medical research, research translation, research-infused education and training and outstanding health care”. Bringing together the three components of TTR, bringing together training and education, bringing together research and research institutes and bringing together delivery in the hospital and the clinical setting. Importantly, the AHRTC must be operating at an internationally competitive level. Prof Challis mentioned the importance of attracting key researchers to our State; we cannot afford to not have one of these centres in WA.

Prof Challis stated the core principles of the operation of the network is not to conduct research but to provide the underpinning platform to firstly *Catalyse,* new research and new initiatives; secondly to *Facilitate,* conduct of translational health research and thirdly to *Unify*, across the state and build partnerships and partners across the network. These are underpinned by four themes of activity: live course and non- communicable disease;; genetics and inherited

diseases infection and immunity and health promotion and primary health systems. We also have expertise in discovery research and translational research across each of those different themes. He stated the idea is to provide a forum where investigators across WA can see themselves identified within one of those themes and through the activity of the WAHTN promote the research activity, catalyse and unify across the themes.

Prof Challis stated that people and the community were at the centre of research, with four specific areas incorporating enabling people; building translation; promoting research and ensuring health awareness. Around the people are our hospitals and new health boards, the universities and the medical research institutes, and the WAHTN. The network unifies and creates partnerships across the system that will help us to enable people, partnerships to develop research to build translation initiatives and to ensure greater health awareness across the population**.**

Prof Challis concluded, we need you! This is your network and you are all part of this network. We need your support to increase the integration, we need your support to enhance translation of outcomes and very shortly to ensure recognition of WA as an Advance Health Research Translation Centre (AHRTC).

Panel presentations

The final set of six presentations was provided in rapid fire format with two presenters for each area focused on: Teaching the next generation presented by Professor Keith Hill and Professor David Atkinson; Training the current workforce presented by Ms Penny Keogh and Professor Jeff Hamdorf; and the value of Research presented by Ms Sue Davis and Dr Nikolajs Zeps. Each presenter was asked to provide a five minute three slide response on their area in relation to the: The Good, The Bad and The Opportunities.

Professor Keith Hill spoke of multidisciplinary healthcare teaching. He offered the World Health Organization (2012) definition of interprofessional education as where two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes. At Curtin University there is a common first year for all Health Science students (50% of all students, 25% other disciplines, 25% discipline specific). There is good evidence of impact.

Describing what could be improved he stated the need was for vertical integration as well as horizontal integration (across years) to be trained in this way. He highlighted the fact that despite being trained in this way when healthcare students enter the hospitals they are not exposed to similar workplace practices to support embedding translation into practice.

The opportunity/innovation lies in simulation, student led wards, a supportive framework for interprofessional education and research linked to clinical placements that adhere to a conducive philosophy. There is certainly opportunity to introduce and embed this model into rural and remote clinical placements.

Professor David Atkinson reported that the Rural Clinical School is having a significant impact on rural medical workforce in WA with urban students three times more likely to work in the rural setting, and indeed further out than if they are trained in the metropolitan areas. There is a cultural change as well whereby having students and junior doctors is improving attitudes to evidence based health care in rural and remote WA. There is multidisciplinary training and collaboration suited to rural locations and practical rural research is making a difference.

The challenges outlined by Prof Atkinson related to some hard to staff locations such as the Pilbara; negotiating policy changes across multiple organisations (governments, professional colleges, accreditation bodies) is time consuming and leads to missed opportunities; similarly the lack of large regional centres and Western Australia’s Geography doesn’t always suit

Commonwealth plans and proposals. Importantly, change often depends on individuals in key positions therefore, progress can be patchy.

He reported the opportunities for rural education and research include expanding the Rural Clinical School of Western Australia (RCLSWA)to more of the harder to staff rural areas; substantially expanding rural junior doctor positions; increasing rural registrar posts for specialist training with innovative supervision models; and to build on RCSWA research experience for translational rural and Aboriginal health research.

Ms Penny Keogh spoke of mandatory competency. She identified several good points about the current situation, such as: investment in staff training to meet standards for quality and safety and associated staff confidence with the training which determines expected levels of competency on the job; reinforces good work practices and supports achievement of compliance with policies and government guidelines resulting in a well-oiled work based education teams.

She outlined the bad as the negative connotation mandatory training implies with staff often questioning the validity of some of the training (waste of time, won't use it). Staff are often unable to attend sessions due to shift work and trainers were expensive. In addition, record keeping of training was inconsistent across WA Health.

Ms Keogh suggested that there is an opportunity to simplify and clarify mandatory training requirements across WA Health. Good examples of this exist in the NHS in the UK and in NSW Health. Reform of the current training could include: developing and implementing a framework across WA Health, with agreed criteria to include mandatory requirements in policy directives; governed by a standing committee; developing standardised curriculum, training material and assessment' in quality assured and evidence based training; a centralised learning management system; and recognising prior learning via various entities accepting each other's training records as staff move across health services.

A most important thing to remember is that mandatory training is still training. Just because an entity mandates the topic requirement doesn't remove our obligation to provide a quality, valuable experience for participants.

Professor Jeff Hamdorf presented on simulation training. He used the example of the Trauma Nursing Core Course (TNCC) as the 'good' of the simulation training program calling it the gold standard for trauma nursing care. This program has trained over 1123 participants. Some difficulty exists with funding as this was originally funded by Health Workforce Australia (HWA).

There are opportunities in future programs such as boot camps for interns where there is evidence of significant improvement in skills, knowledge and importantly, confidence levels with a return on investment of 7:1.

Ms Sue Davis spoke of multidisciplinary research in the public system. She stated the good things are related to research expertise, strong links with the universities and a large multidisciplinary component. Most of the research has had a positive impact on patient outcomes.

In addressing what needed to be improved she highlighted a poor grant success rate in WA of 7% compared to a 13% nationally. The bureaucracy around spending grant money is onerous and at times wasteful. In addition, poor metrics in terms of research outputs and the associated block funding and, the fact that there are no research key performance indicators were also identified as areas for improvement.

In turning her attention to the opportunities she called for: allocated time for research; models for translational research with some direct funding to health services in order to prioritise

projects; need for more medical, allied and nursing involvement; infrastructure in health services around biostatistics and education; and the benefit of influencing teaching, training and research.

Dr Nikolajs Zeps offered a private system perspective stating research needed to be part of the culture and align with the vision of the organisation. He stated key performance indicators (KPIs) for research must be a priority. Research outputs had doubled recently in the private institution to which he was affiliated.

Dr Zeps identified the key is the focus on exceptional patient experience. You must have a 'can do' culture and there must be support for researchers. They have a valet service to support researchers with preparation and submission of grant proposals.

He did not report on the bad stating there wasn't anything given the position of his organisation. He said the opportunity for the future is to seek variation, interpret this and do something about it. Finally, transformative change can be enabled if clinical research is implemented.

Plenary

The focus of the plenary debate was on "Optimising investment and transparency in Teaching, Training and Research". In the facilitated session, senators sought input from the experts and were well informed in relation to the reforms and budget position and discussed how best to optimise and manage investment in TTR.

Senators identified the need to develop an organisation wide culture that facilitates development of embedded/integrated TTR practices within core business, including specific measurable key performance indicators that capitalise on/maximise the TTR investment.

They determined there is opportunity to optimise existing and future investment in TTR through innovation both within the DoH organisation and via intersectorial and interprofessional collaboration across institutions (e.g. VET, NGO's and universities) who provide different opportunities/capabilities for workforce training, development, and research.

Senators discussed strategies for investment in TTR that must include longitudinal initiatives and incentives that consider workforce planning, graduate development, and industry retention. In order to manage this investment in our workforce there must be innovation in building workforce capacity and training, such as partnership with non- government agencies and private enterprise along with expanded models of effective and cost efficient interprofessional collaboration.

The impact in WA with regard to TTR in rural areas was highlighted as an area for investment and opportunity. Senators identified the need to expand placements and for increased practical rural research in remote areas. Consideration of rural experience/exposure should be fundamental to any workforce TTR strategies in order to meet the diverse requirements across DoH services now and into the future.

With the establishment of Health Service Boards and changes to service agreements and governance structures across the DoH, senators identified a need to establish ways to participate in development of new strategies/models that drive opportunity, maximise investment dollars, minimise funding gaps, and improve accountability to assist with implementing both the state-wide research and clinical teaching and training framework policies.

The measurement of research and development of a research culture is paramount. There can be transformative change in our healthcare service model if we enable clinical research. Embedding research in the system will encourage a culture, limit waste and improve efficiencies.

The afternoon session's two concurrent recommendation workshops separated Teaching and Training from Research. However, the consistent themes were of mandatory training, quarantined time, ensuring clinical input into relevant key performance indicators, interprofessional education and collaboration, specific issues related to rural and remote teaching and training, community based training, visibility and accountability of delivery of the TTR budget and improved culture and collaboration across sectors with increased engagement of consumers.

In conclusion, the Clinical Senate highlighted the connection between Teaching and Training and Research finding that both must be supported and valued as vital contributors to our health system. The recommendations align with the policy frameworks and identify the importance of partnerships to assure we can teach the next generation, continue to train the current workforce and continue to promote research so that we can attract and retain the best healthcare workforce and so that the people of Western Australia are provided with the best possible health care system. There is opportunity to make these changes within the devolved governance structure.

The Clinical Senate recommendations provide a foundation for change in order to build a culture both in terms of an academic health care environment and of academic clinical enquiry (research) to ensure that TTR are core business.

A response from the Director General to each of the recommendations of endorsed, endorsed in principle, or not endorsed is requested.

Sincerely,

Professor Julie Quinlivan
Chair
Clinical Senate of WA

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Transforming Teaching, Training and Research

Recommendations

1. Implement a statewide Learning Management System (LMS) that links existing LMS and provides service level reports and individual level data that is transferable between services.

2. In order to meet the DOH policy requirement of providing safe, quality evidence based health services; Health Service Accountability will be measured by key performance indicators that should include:
    - Quarantined teaching time
    - Quality improvement activities
    - Leadership Training
    - Evaluation surveys/ in relation to the adequacy of teaching and training
    - Demonstrate outcomes such as research publications, workshops etc.

3. The Health Service Boards should establish multi-disciplinary joint academic /clinical appointments that report through to the Chief Executives who are responsible for:
    - Development of relevant, multidisciplinary research portfolios
    - Increase the awareness of a workplace culture towards improving patient outcomes through education, training and introduction of new processes that translate research findings
    - Increase collaboration and partnerships with patient and other stakeholders
    - Developing reporting research relevant KPIs
    - Streamline approval and governance processes
    - Involve junior clinicians.

4. That Health Service Boards and WA Health quarantine the TTR budget to ensure it is identifiable, flexible in use and rigorously acquitted. The TTR budget can be used to support specific TTR activities such as:
    - Research specific information systems and software
    - Bio statistics
    - Health economics
    - Supportive financial structures particularly for multi year research
    - Dedicated research support staff
    - Ethical and governance processes
    - Library services.

5. Department of Health partner with all relevant stakeholders to increase capacity of rural and regional settings in the provision of valid training opportunities for all professionals.

   E.g. Rural Clinical School, Western Australian General Practice Education and Training (WAGPET), WA Primary Health Alliance (WAPHA), Students and Practitioners Interested in Rural Practice Health Education (SPINRPHEX), the Aboriginal Health Council of WA (AHCWA), Aboriginal Community Controlled Health Organisation (ACCHO) and Rural Health West.

6. Department of Health to require in the Health Service Agreements (HSAs) that metropolitan (NMHS, SMHS & EMHS) and children's health services (CAHS) contribute to Teaching and Training for WACHS to ensure specialist knowledge is shared statewide.

7. WA Health encourages cross sector research by promoting partnerships across primary to tertiary care focussed on outcomes that decrease demand and increase care closer to home.

   This can be achieved by

   - Allocating some research funding to cross sector research
   - The specific criteria in research grants require cross sector consumer partnerships
   - WAHTN include primary care rep on the Board
   - WA Health supports effort for WAHTN become a National Centre of Excellence

8. WA Health develops a series of Key Performance Indicators (KPIs) to demonstrate that research is embedded in clinical practice.

   This includes conduct of research, publishing with co-branding, and translation of research outcomes into clinical practice.

9. WA Health recommends that all health care students that are undergoing hospital based training undergo a quarantined commitment to community based primary health care service.

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