

Advanced Health Research Centres NHMRC Consultation Response

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Health Outcomes Should be the Primary Aim:

The ultimate mission of an AHRC should be to deliver improved health and well being outcomes locally and globally through *integrating* excellence in research, education and training and in patient care. It should achieve maximum synergy between these three areas, which in less effectively integrated environments work independently or in competition for resources. For a hospital campus/university/institute collaborative to be nominated an AHRC it should be able to demonstrate it is a place that has been able to coalesce a single research and education-supported patient care mission out of all three functions. Furthermore, evidence of *integrated* leadership with shared purpose and investment priorities by the stakeholder organizations will be important.

The remit of Australia's AHRCs should encompass local, national and global health, underpinned by excellence in research, education and clinical care. As articulated by Steven Wartman¹ (CEO of Association of Academic Health Centres in the US) AHRCs should exert a three fold impact on health outcomes through:

- delivery of needed and high quality health care to improve *health status*
- research which addresses pressing *healthcare problems* and
- educational programs which *produce health professionals who serve the community*

The aims for AHRCs proposed in the NHMRC document rightly focus on promoting excellence in both basic and translational research, but do not address the mechanisms whereby both contribute to the primary goal of better health outcomes. This submission recommends that health outcomes become the primary objective against which AHRC effectiveness is measured, and that excellence in research, education and clinical care as well as collaborative links between hospitals, universities, medical research institutes and primary care should be measured against their capacity to contribute to this primary objective.

Aims could be specifically tailored to articulate the types of translation to be supported by AHRC, for example:

- The transition of fundamental discovery and knowledge (eg drugs, devices) to produce new treatment options.
- Application of clinical research in both the primary care setting and in hospitals through improving access, improved infrastructure and governance, reorganizing and co-ordinating systems of care and point-of-care decision tools.

Selection Criteria Require Alignment with Delivery of Improved Health Outcomes:

The proposed criteria do not currently support the goal of improved health outcomes and rather focus on traditional NHMRC metrics for research excellence. Selection should be closely aligned with translational metrics with excellence in the three pillars of research, education and clinical care as important secondary criteria.

A number of national and international research institutes and consortia have published their own metrics for translational research, usually driven by the nature of their own output and expertise. Novel discovery leading to new diagnostic and therapeutic approaches for example, is measured quite differently and over a vastly different time scale and geographical area to health service innovation which may impact quite quickly in a local healthcare sector. It would be useful to consider how translational metrics at each end of this spectrum could assist internal assessments when ranking track records and setting objectives and success indicators for AHRCs.

Once translational metrics have been developed, it is important these are underpinned by distinctive subsidiary metrics assessing research, education and clinical care. Whilst translational outcomes are the ultimate goal, they will not be achieved without excellence in the underlying disciplines. Adequate metrics for research excellence have already been set by NHMRC, while those for education and clinical service delivery are also well validated.

Metrics will serve the dual purposes of selection of:

- (i) AHRC partners and
- (ii) assessment of AHRC achievements against milestones.

Care is required to establish the correct metrics at both the translational level and for research, education and service delivery as these will be key performance drivers and an important mechanism in achieving meaningful health outcomes.

In developing selection criteria consideration should also be given to:

- The fact that considerable cross-institutional translational collaboration already occurs throughout Australia and that current effective groupings may achieve less incremental gain yet achieve more than new groupings coming off a low base.
- How linkages with primary care and preventive mechanisms through the national health reform agenda can be encouraged and assessed.
- How to recognise and develop research literate clinicians who are an important conduit for research application
- How to foster developing AHRCs in priority areas such as indigenous health and in regional areas where achievement against traditional metrics may be more difficult.
- Whether particular topics should receive precedence according to National Health Priority areas (eg indigenous health, obesity, cancer)

Aligning the Health, Education and Research Sectors on Delivery of Health Outcomes Requires a Funding Mechanism which Focuses on Health Deliverables:

Without a strong commitment to funding and new investment in people and infrastructure, the ASHCs are unlikely to be sustainable and achieve the goals presented above. At present translation is impeded by fragmentation in the funding mechanisms and the differential goals of the health, research and education sectors. This has also given rise to fragmented institutional frameworks which further impede multidisciplinary translation. These sectors are funded across multiple state and federal departments on the basis of discrete KPIs which range from research publications to student numbers and post-graduate completions and duration of hospital stays. An important consideration in maximising Australia's clinical translation is to harmonise and realign goals in the health, education and research sectors by rewarding collaborative effort focused on health outcomes. This will require a simplified funding mechanism which

provides an incentive for the three sectors to align rather than the current situation which encourages institution-focussed division.

Funding for AHRCs must be delivered in a manner which addresses the current barriers to translation. Improving health outcomes is a complex and challenging goal with a variety of very different mechanisms underpinning delivery of, for example:

- preventive versus improved therapeutic strategies,
- local versus global outcomes and
- short term versus long term benefits

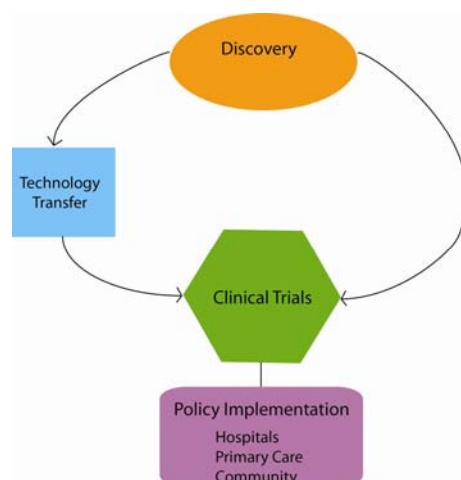
In all instances the translation from knowledge to application is limited by sub-optimal linkages between one or more of the jurisdictions of discovery, technology transfer, clinical trials and policy implementation (Figure 1). Principles for investment by the ASHCs should focus on people and infrastructure that meet the integrative shared vision of the ASHC, rather than specific projects. Consideration of dual appointments that enhance integration across disciplines and organisations and investment in key infrastructure to overcome road-blocks in specific areas within the translation pathway of the ASHC will be important. Additional considerations include providing support for initiatives linking jurisdictions to deliver tangible health benefits. Specifically, the AHRC funding mechanism should:

- (i) break down institutional barriers by funding integrative functions rather than the institutions, and
- (ii) provide a proportion of existing funding (across the research, education and health sectors) on the basis of joint rather than separate institutional purposes.

Funding would be site-specific and be directed to support the complex multidisciplinary integration required to move from both:

- (i) discovery to clinical trials
- (ii) clinical trials to policy implementation.

The former involves transfer of fundamental laboratory discoveries related to disease mechanisms into new diagnostics, preventive and treatment strategies requiring integration of basic sciences, commercialization, the biotechnology industry, clinical sciences, big pharma, CROs and regulatory and ethical bodies/processes. On the other hand, the translation of clinical trial discoveries to practice influencing day to day clinical decision making requires an entirely different expertise base including clinical epidemiology, evidence synthesis, communication theory, behavioural science, public policy, economics, organizational theory, system redesign, health informatics and qualitative research.² To enhance Australia's collective effort in translational research some of these issues are best integrated on a national level (eg policy issues) whilst others are more suited to geographically-based (eg basic/clinical imaging facilities) linkage.



The distinctive AHRC contribution to this should be to catalyse linkages through tactics which promote so-called push mechanisms (eg, grant support to targeted health outcomes) and also facilitate pull approaches, where clinical need is supported in 'reaching back' into the domains of investigator-led discovery and technology transfer for answers to patient care need^s.

Geographical Issues

The AHRCs should be special and recognize groupings which can demonstrate national/international competitiveness in one or more health themes. A balanced geographical distribution amongst states and territories should occur to ensure widespread translation to address local community health needs.

Consideration should also be given to national linkage of AHRCs to inform and monitor the national health reform agenda. National linkage of AHRCs would be well-placed to harness the pinnacle of excellence in research, education and clinical care to address areas of national clinical need. National networks could work to reorganize and co-ordinate systems, integrate with primary care, address issues of access and facilitate point of care decision making. Furthermore, a national system could overcome current barriers to interstate collaboration which exist due to state-based funding responsibilities, particularly in hospitals.

Governance Should not be Prescriptive:

Governance is critical to the success of any ASHC. Governance has to be very different from the current arrangements which lack integration between the health sector and research organizations. Governance, which will vary within the ASHCs, will however need to demonstrate integrated leadership where the organizations comprising the ASHC share a common purpose and agree on an investment strategy. This in itself would represent a major change from the current situation in Australia.

Governance can be viewed at multiple levels, and includes both i) *operational* governance and ii) *scientific* governance which promotes cross-institutional collaboration. Effective joint governance at both levels across institutions is currently impossible because of the absence of amalgamated institutional arrangements or jointly available funding. Separate institutional governance is necessary to deliver the discrete institutional goals of hospitals, universities and medical research institutes against which these institutions are currently judged. Effective *operational* governance at an institutional level will also be important to achieving AHRC goals, but joint operational governance is not achievable in the current environment. Given this situation, integrated *scientific* governance is key to achieving optimal alignment between the clinical, education and research sectors. As discussed earlier, a granting scheme which crosses current jurisdictional and institutional boundaries by articulating a joint statement of purpose to improve health outcomes will be key to drawing institutions closer. This will be the glue which motivates translational collaboration supported by effective cross-institutional governance.

Internationally there are multiple successful governance models for AHRCs. However, NHMRC should be cognisant of the unique Australian environment and the potential benefits of pooling national expertise for impact on health policy in a country as small as Australia. The NHMRC should avoid being prescriptive in the models permissible, but rather promote flexibility and require applicants to demonstrate how proposed models will facilitate translational health outcomes and promote efficiencies of scale through shared facilities, resource integration and collaboration.

References

1. Wartman, SA The Compelling Value proposition of Academic Health centres. *Association of Academic Health Centres*. 2010.
2. Woolf, S.H. The Meaning of Translational Research and Why it Matters. *JAMA*. 299(2):211-213, 2008.