

Submission

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Standing Committee on Industry, Science and Innovation

Inquiry into Research Training and Research Workforce Issues in Australian Universities

From:

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Summary

The following submission addresses, in particular, the Inquiry's Terms of Reference 2a) and 2b) and examines the challenges Australian universities face in training, recruiting and retaining a high quality **Clinical Health and Medical Research Workforce**.

The Problem

There is currently an overwhelming expectation from the public and the health sector for the delivery of evidence based medicine/health care. This is in stark contrast to the shortage of health professionals who are generating evidence; that is, we do not have adequate doctors, nurses and other health professionals who are doing research which can then be implemented into practice

Recent medical and nursing workforce surveys in Australia demonstrate that only 1.9% of doctors nominate themselves as researchers and only 1.5% of nurses are employed in a researcher role^{1,2}. However, in volume terms this percentage is felt greatest in nursing representing a large untapped clinical research workforce.

Therefore, for Australia to be competitive in health and medical research we need greater numbers of appropriately qualified professionals who can not only lead/design/initiate research projects but also the infrastructure (support staff/systems) that allow these projects to take place in the clinical setting.

In addition, dual qualified clinician-researchers or "clinical investigators" are particularly crucial in ensuring translational research can complement the work of basic science researchers who have undertaken groundwork in the laboratory. Clinician-researchers are also vital in testing innovations and quality in direct clinical care and ways of organising health system. They are also vital in initiating a "bedside to bench" flow of enquiry; that is to identify areas where basic scientists have not yet ventured or do not realise are topical to patients.

Policy makers who seek to build Australia's research capacity however have little data on who, how and how much clinical research is conducted and the actual contribution made by clinicians. Whilst doctors and nurses nearly always report positive attitudes towards research the true picture of actual incidence of research activity across the health professions is unclear³⁻⁵. Research activity, particularly in nursing is also variably defined^{6,7}. Data on the effectiveness of clinical researchers in improving health outcomes is also lacking.

To further help define the above problem, we recently surveyed the entire staff of an Australian hospital (1,120 medical, nursing and allied health professionals) with a response rate of 428 (36%). Almost half (43%) of the respondents were interested in undertaking their own research, yet only 15% were currently involved in any research activity, and this was usually for less than 5% of their working role. This data reflects a dire situation, yet is not surprising given that health services rarely dedicate funding to create employment positions for medical, nursing or allied health researchers.

Perceived Barriers

1. Employment/roles

Employment positions are available for clinical academics in universities, however, these usually involve substantial teaching commitments and may not attract those that are motivated by clinical and research interests, and who wish to remain in the clinical arena. Whilst joint academic/clinical positions have been traditionally established in medicine in teaching hospitals, some jurisdictional health services have gradually withdrawn support for new or replacement positions for these core positions within a health service. However, such a phenomena is not isolated to Australia.

2. Remuneration

Remuneration rates for academic, and research-only positions are woefully inadequate to attract qualified health professionals into research. Doctors, nurses and allied health graduates rapidly progress to salaries of ≥\$60-70,000p.a. and are in high demand in the health sector. The greatest contrast in salaries is seen with medical specialists where an academic salary can often be half that of a staff specialist.

Remuneration is an inhibitory factor at all stages of the researcher recruitment and retention spectrum, starting with inadequate scholarship support with the PhD APA stipend of \$20,007 for full time students. Those health professionals who do seek to enrol in a PhD or other higher degree usually undertake this part-time, so that they can continue their clinical work and supplement their salary. This means it takes many years longer to graduate. Current NHMRC personnel support packages are also greatly out of step with industry wages making it impossible to employ medical, nursing or allied health staff to work (and therefore receive research training on these projects).

3. Culture

As the Australian health care sector deals with the burden of chronic disease and an ageing population, health service administrators and clinicians increasingly relegate research functions to low priority ie research is no longer core business for major health services. Changes to priorities usually occur slowly and are not explicit but eventually lead to a gradual devaluing of the function and role of a clinician as a researcher. This cycle has to be reversed.

Pathways

Honours degrees are the traditional pathway to PhD and a research career in the biological and social sciences. Yet in the clinical disciplines, it is extremely rare to see medical, nursing or allied health students choose to extend their degree to undertake honours. This is partly due to the financial disincentives to continue studying where no clear future career path or financial reward is visible, and partly reflects the attractive salaries and low unemployment in the health sector.

The health professionals we surveyed most commonly were only educated to the degree level. Only small numbers had academic research training as evidenced by an honours, research masters, MD or PhD (0% of allied health, 1.5% nurses, 4% doctors). Strategies to attract more clinical practitioners to undertake formal research training is a vital step. These could include increased numbers of scholarships, fellowships, and dedicated funding in health budgets to support staff to undertake these degrees.

Our research also showed females, younger health professionals, nurses, and those with lesser academic qualifications (i.e. Bachelor compared with Masters) were significantly ($p < 0.001$) less likely to undertake research. This may be useful to identify groups where particular strategies need to be employed, e.g. consideration of scholarships and fellowships for higher level study. In addition, consideration of maternity leave and child care support is likely to be especially important given the current feminisation of the health workforce. In addition, although older professionals are more likely to be recruited into research, it is important that "young" researchers are developed so as to maximise opportunity for future research contributions.

Recommendations

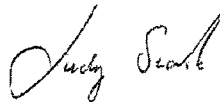
1. There is a need for future research which measures current research capacity of the clinical health workforce and then attempts to measure its effectiveness particularly with respect to health outcomes.
2. There is also a need to research the effectiveness of strategies designed to develop and promote research training and activity by doctors, nurses and allied health professionals. These should be grounded in an interdisciplinary framework which results in skilled health professional researchers who are competent and comfortable to undertake research within and between the university and health delivery sectors.
3. The development of Key Performance Indicators for health and medical research are urgently required and incorporated into the upcoming Australian Health Care Agreements

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Signed

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(unable to forward at time of submission)

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