

## **Florence Nightingale School of Nursing and Midwifery, King's College, London response to the Cooksey Review**

### **Introduction**

The Florence Nightingale School of Nursing and Midwifery, King's College, London welcomes the opportunity to respond to the Cooksey Review of UK Health Research. We recognise that this timely review has the potential to ensure the appropriate future allocation of research funding to underpin innovation and improvements in all sectors of the UK health economy.

The Florence Nightingale School, as the original school set up by the Nightingale Fund at St Thomas' in 1860, occupies a unique position within the nursing world. It also combines one of the oldest university-based departments of Nursing Studies in the UK and has a proud tradition of research and hosts the only DH-funded Nursing Research Unit in the country, the contract for which has recently been renewed.

Before examining each of the review questions in turn, the position of nursing research in the UK is presented.

### **Quality improvement in nursing research**

Unlike medicine, research in nursing and midwifery are relatively new ventures. Metrics in nursing research have indicated an impoverished funding base but where investment is made significant gains in outputs have been made. Positive trends in quality improvement in nursing research have been identified in the aftermath of the 2001 Research Assessment Exercise in the UK. This demonstrated a clear increase in both the volume and quality of the research being conducted in university schools of nursing around the UK, as reflected in higher ratings, as well as an increase in the number of higher degrees completed and the number of nursing research students registered, adding to the national research capacity. Some examples of high quality cross-disciplinary research were also highlighted in RAE 2001 and areas of particular strength in British nursing research included mental health, care of older people, cancer care, palliative care, pain management and maternity care. These were areas reflected in national priorities, and so it seemed that nursing research was now contributing to the knowledge base of nursing and health care in substantive ways (Bond, 2001).

Since RAE 2001 a number of significant funding initiatives have helped to boost research in the nursing field. The Department of Health's National Co-ordinating Centre for Research Capacity Development established a scheme in 2001 to build capacity for research in nursing, midwifery and allied health professions. The Health Foundation has provided fellowships (9 over 3 years), both self-standing and consortium-based, to nurses, midwives and allied health professions since 2001 in England. A parallel capacity-building scheme has been established in Scotland, and similar initiatives are planned for Wales and Northern Ireland. The Higher Education Council for England (HEFCE), as part of its commitment to implementing the findings from the Taskgroup 3 report, also provided capability funding to nursing/schools departments that achieved middle rankings in RAE 2001. A review of the scheme is currently being undertaken by HEFCE, and due to be published in September (Wilson, 2006). Early signs are, therefore, that the return on investment is yielding benefits and capacity and capability gains for nursing and allied fields.

Yet, notwithstanding these advances the scale of government funding of research, which specifically addresses the concerns of nursing, has been parsimonious. It includes initiatives across the UK to develop research capability in the Nursing, Midwifery and Allied Health Professions (for example £9M investment in Scotland); the DH "Policy Research Programme" (£2M for "nursing quality initiative" in 2003/04); the DH "Service Delivery and Organisation Nursing and Midwifery programme" (2005/06 budget £550K).

Whilst these funding streams are welcome, they are diminutive and dwarfed by the national investment in medical research. Nursing is the largest single item in the pay budget of the NHS, which in turn is the largest component of the NHS budget overall. The public are poorly served by underinvestment in the research base from the largest workforce delivering care to patients. Recent analysis by UKCRC demonstrate that the clinical research landscape is dominated by biomedical research (UKCRC 2006).

Furthermore, education contracts to fund education in nursing and midwifery explicitly forbid Universities from using nurse education money to support research activity. This is in stark contrast with contracts from other government departments with strong R&D records, such as the Ministry of Defence, which fund research and sabbaticals for staff as part of these contracts. Nursing and midwifery departments in Universities are eligible for Research Assessment Exercise (RAE) monies, but the subject of nursing and midwifery receives less money than almost any subject in UK Universities.

Without a strong portfolio of clinically relevant nursing research, patient care is compromised and the public underserved. There are three times as many nurses as there are doctors in the UK and nurses are reported to deliver 80% of direct patient.

Research funding should always be awarded on the basis of excellence and through rigorous and systematic peer review. Funding should be accessible for **all** health research disciplines across the entire spectrum of health research from basic to applied research and range of appropriate methodologies. The emphasis on translational health research and its relationship to economic benefits is especially welcome.

## **The Florence Nightingale School of Nursing and Midwifery, King's College, London Response to Review Questions**

### **1. What are the strengths and weaknesses of the MRC and NHS R&D programmes at present? How do each of these support the research and training needs of the NHS, social care, industry and academia? Does more need to be done?**

The major strength of the MRC is the focus on international research excellence. Significantly, its orientation has not been on capacity building and has tended to be supportive of medical research rather than health research. While the Health Services Research Board is a welcome development more effort needs to be made to encourage patient-centred approach to research and implementation into practice.

As indicated above the NHS R&D Programmes have provided funding for the full range of health and social care professionals. They have also encouraged capacity building in disciplines new to research by funding studentships, bursaries and fellowships. Whilst benefiting from strong links to policy bringing NHS strategy and research closer together, the weakness of the NHS R&D programmes is that they seek more short term research output linked to policy aims, with limited investigator-initiated awards and opportunity to build programmes. This has hampered the development of a robust evidence base as well as active and sustainable clinical academic careers.

The strengths of MRC support are independence, investigator led research, and the capacity to support 'blue skies' research. There has been a history of medical and biomedical dominance of the setting of the research agenda, and funding priorities, but more recently nurses and midwives have been involved in MRC Boards, and College of Experts.

Historically, the NHS R&D programme funding has not been used to support research in NHS Trusts but to support patient care, and there have been inequities in access to R&D funding in NHS Trusts where nurses and midwives have been excluded, and/or have not received acknowledgement when their research activity has contributed to R&D returns. The asymmetry of expertise is likely to continue with 'Research for Patient Benefit', unless specifically addressed. We are sceptical about the independence of MRC funding being controlled by NHS R&D.

If it is required that clinical staff lead research, then they should be provided with adequate training and capacity building programmes to provide them with the skills and expertise to do so. Currently, both the MRC and NHS R & D stream have had structured inequities in providing equal access to capacity building funding for nurses and midwives wishing to develop clinical research careers. Much more needs to be invested in developing clinical academic careers for nurses and midwives to enable free movement and mobility across sectors. We welcome the forthcoming Finch report on clinical academic careers for nurses, midwives and allied health professions, mirroring similar investments in medicine through the Wolpert Report.

### **2. What do you believe are the key scientific and organisational challenges facing health research, and underpinning training, in the UK over the next decade? How might the UK Government best help address those challenges? What do you believe should be the Government's objectives for health research, and why?**

Nursing and midwifery are often the largest professional schools in universities and the largest workforce in the NHS. However, the funding provided to build capacity among these disciplines has been minimal in comparison to that devoted to medical researchers. A patient-centred approach to research funding should rightly parallel a patient-centred NHS and approach to research. How best can we prepare these health professionals who are closest to patients to undertake high quality clinical research is a challenge. As indicated above, investment in extending high quality capacity building schemes designed to deliver cadres of researchers and programme funding for research would be well rewarded.

There should be greater incentives within both the NHS and the University sector to collaborate in health research to improve the quality and the relevance of health research and reward its multi-disciplinary membership. Boosting funding into translational research is vital, especially that which focuses on the patient experience. Developing leadership skills in entrepreneurship for researchers of all stripes, promoting effective teamworking, identifying 'best practice' in collaboration, research networks are also important parts of the scientific training process.

The key challenges for nursing and midwifery are building capacity and developing clinical research career pathways parallel to those already in place for medicine. Full-time fellowships are essential to build the base efficiently and capture the talents and imaginations of the next generation of researchers. Most nurses and midwives do their PhD part-time and are often unfunded. This is a haphazard and amateurish way to grow a research base. High quality research training exposure to leaders in the field in a high quality research environment with a well designed, multi-disciplinary research training programme.

### **3. What should be the Government's priorities for health research? Is there anything it should stop doing or funding? What is it not doing or funding that it should do, and, in the absence of further sources of support, what can it lower in order to release the necessary funds?**

The World Health Organisation (2006) annual report points to the importance of human resources, or the lack of them, as the main impediment to delivering and improving access to care in many countries. They also pointed to the paradox of the chronic underinvestment in research into this vital area.

The government's priorities for health research should be to fund more research into different configurations of the workforce and how best to respond to epidemics of chronic disease, challenges of an ageing population through to the support, treatment and caring of these groups and individuals.

The UKCRC (2006) has already suggested that there is sufficient research into some areas such as cancer. The balance needs to be redressed towards translational, applied and patient-centred research that makes intelligent use of the workforce.

### **4. How should decisions be taken on the balance between the long-term economic and social benefits of a high quality biomedical research base; and the needs for research to improve healthcare and other public services? What is the appropriate balance between public funding for investigator-led and priorities led research? How do we balance funding for basic science, translational science and applied science? Is this something**

**that should vary over time? What mechanisms should be used to make judgments about this balance?**

Internationally, the NHS is unique in terms of the scope of provision of health services, its funding base and complexity. This brings challenges in terms of how best to manage and maintain the NHS in order that the populations obtain the best possible health care. Many of these problems can be addressed through research projects and programmes in the form of translational science and applied science. Within the MRC the balance favours basic science while there is more of a more even balance in the NHS R&D Programmes in the applied realm. These two need to be brought together in some form of synergy and potentially linked with R&D in other sectors for cross fertilisation, 'spin-offs' and commercial exploitation. The UK is notoriously poor at investing adequately in R&D and translation through entrepreneurial activity and commercialisation into 'product's' or 'best practice'. Doing what we do better is vital if the UK is to raise its game and the yield from a unified and enhanced research budget. The balance needs to shift to the end-user, translational and implementation end of the spectrum. Sound judgements about this balance may be realised through equal representation of personnel in decision-making at all levels reflecting expertise in the full spectrum of health research encompassing a wide range of methodological expertise.

**5. In your experience, how have the results of publicly-funded health research in the UK been used, both in the development of new treatments and to influence / change wider policy and healthcare practices? What lessons can usefully be learned to improve the uptake of advances in science and medicine?**

Implementation of results from research can be notoriously haphazard for all manner of well-rehearsed reasons, including competing priorities, expense, lack of championing of change, quality and maturity of the evidence base etc. Useful mechanisms exist through HTA, NICE to produce guidelines and facilitate protocol development e.g. bandaging techniques for varicose ulcers. Yet political expediency, timeliness may all promote or inhibit perfectly well crafted R&D solutions from being implemented. More needs to be invested in economic evaluation of therapies and complex interventions in particular and patient preferences factored into the commissioning and implementation process. This presupposes that knowledge can be bureaucratised and 'managed'. It can but only to a limited extent. - **What lessons can usefully be learned to improve the uptake of advances in science and medicine?** Research involves risk and consequently failure and the mortality of ideas are an inevitable part the research and creative process. Focus is imperative. Where research is focused on clinical patient centred problems, there can be benefits in terms of decreased morbidity and mortality. Many of these patient centred problems are complex and challenging to research. Health care is messy and involves complex interventions, which require multi-methods approaches and innovative methodological approaches to address them. They do not lend themselves to RCTs alone. Funding for knowledge transfer and translation should be enhanced as a routine part of research regimes and funding policy.

**6. How might better links be forged between 'basic', translational and applied researchers, working across the whole field of health research, from the laboratory bench to the front line of the NHS? How might better links be forged across disciplines, e.g. with engineers, physicists, and social scientists?**

Networks, networks, networks. Funding networks and creating incentives for multidisciplinary research and collaborations is essential. Bringing people with different talents and backgrounds and methodological skills sets together in different for a, labs, workshops, studios. We've had research incubators why not the research 'atelier'? Again, these may include for example special funding arrangements. Incentives should be put in place to encourage researchers to collaborate across the bioscience, translational research applied research interfaces. The same principle should be applied to promoting research collaborations between researchers in different fields of science, social science and the arts. This will also be stimulated through research priorities and calls for research proposals that emphasise partnerships between different disciplines coming together to work on research programmes. A programme in which all the research councils collaborated would be exciting and potentially innovative and inventive (although possibly a challenge to administer!). We should endeavour to bring the best minds to bear on the most wicked and intractable of health care problems. We need to be prepared to take intellectual risks. That is what the best science is all about. We can learn from and craft solutions from colleagues in a range of disciplines; pain management may involve bioengineers, psychologists, imaging specialists, biochemists and pharmacologists as well as clinicians and artists.

Such collaborations could also be encouraged if a greater emphasis was placed on this by the Research Assessment Exercise or the metric system that may replace the RAE post 2008.

#### **7. How can the Government encourage translation, entrepreneurship and innovation in health research to improve public services in the UK?**

Entrepreneurship should be a core element in the curriculum of all health professional courses. Similarly, universities and the NHS should include innovation and knowledge transfer as criteria for promotion and advancement. KTP schemes that have proved so successful in industry should have a greater emphasis on health care. Health researchers should have greater exposure to different organisational environments during their training and career development.

The MRC and the NHS R&D Departments tend to focus their funding on the generation of new knowledge rather than the application of this knowledge to practice through translation, entrepreneurship and innovation. The latter is often denigrated as evaluation research and audit. Ring fenced funds should be made available to support 'proof of concept' research, practice developments and research into technology and knowledge transfer.

#### **8. How can UK health research funding be most effectively used to provide the appropriate infrastructure for basic, translational and applied research, whether funded by the UK public sector or other sectors? How can UK health research funding be most effectively used to support the work of NICE, facilitate innovation and collaboration with industry, and address market failures in the application of healthcare?**

This will not happen by continuing with the *status quo*. Rather, there must be a strategic decision to fund the infrastructure to underpin basic, translational **and** applied research. Funding streams should be available to train health researchers in the most appropriate and robust methodologies for undertaking translational and applied research. Alongside this there should be ring-fenced funds to support such research. There is the need to ensure that the Board of the research funding agency is composed of peer reviewers and experts from different disciplines and with expertise in different methodologies.

NICE and SIGN produce excellent evidence based guidelines. However, such guidelines are not self-executive and therefore research into the application of these into practice and an evaluation of their effectiveness and efficiency is required. The view that translational research is indicative of weak or soft science has to be challenged if it is to be utilized to improve the quality of patient care.

**9. What lessons should the UK learn from other countries in making the proposed changes to the institutional arrangements for the funding of health research?**

There are lessons to be learned from the USA and Canada. In the former the NIH has a number of research institutes that focus attention on the Government's research priorities. The UK NIHR reflects this model. One of the drawbacks of the US NIH is that all the institutes have their base in Bethesda, Maryland. In contrast, the Canadian Institutes of Health Research (CIHR) are spread geographically across the country. This illustrates the value that the Canadian government places on geographic diversity as well as disciplinary and methodological diversity. This model could be used in the UK NIHR with institutes having bases in the four countries of the UK. The NINR in the US also operates in a responsive mode. Once you have a programme grant you can apply for another. The predominance of the commissioned model for NHR R&D monies inhibits long term and strategic investment in programme development of research in nursing and midwifery. The Canadian Health Services Research Foundation (CHSRF) specifically invested \$25million in 6 nursing and 6 health services research chairs in 1997 in a model which was oriented towards bringing on the next generation of researchers through teaching and mentoring and linking with decision-makers. The consensus is that both the NIH and CHSRF models for nursing and midwifery have been a resounding success, and made research in these countries leading edge. The investment in the UK, while welcome has been cautious and much more conservative in scale. We shall only fall behind our international competitors, lose out on opportunities to collaborate, fail to benefit from NIH and Canadian sources of funding if the UK does not invest in nursing and midwifery in this country. The strength of the British nursing brand will decline in the eyes of the international nursing community. A strong evidence and research informed base for nursing and midwifery in the UK is essential to our national standing and prestige abroad. Contracts for overseas educational ventures will increasingly be awarded preferentially to N. America and we stand to shall lose potential business for the HE sector as a whole.

**10. In implementing the single fund for health research, to what extent should the MRC and DH / NHS R&D be merged or brought together? And to whom should the single, ring-fenced fund be accountable? Please provide reasons and any supporting evidence for your response.**

The main difference between the two funding streams is MRC is investigator-led research and DH/ NHS R&D is commissioned research. The limitations of these current funding streams is their failure to address the concerns of nursing practice as stated above - patient's experiences, the effectiveness of nursing interventions in sustaining health and managing illness and in ensuring optimal patient outcomes.

A new single funding stream must embrace the broadest spectrum of health research, health researchers, and research methodologies. It must include sustainable funding to support programmes of research to develop the evidence base to underpin nursing practice. The body, which administers the single funding stream, should incorporate equal representation of

personnel in decision-making at all levels reflecting expertise in the full spectrum of health research encompassing a wide range of methodological expertise. This body should be accountable to the public through their elected representatives and decisions on scientific merit should continue to be by independent peer review.

**11. To what extent does the success of recent innovations in health research (e.g. Clinical Research Networks) and the proposed structures rely on the new Connecting for Health NHS IT system, and to what extent should it do so?**

This question is based on the assumption that innovations in health research, such as Clinical Research Networks, are successful. Their capacity to support translational and applied research should be evaluated. All of the current coordinating centres have a medical focus and support a narrow methodological perspective. This does not give due regard to the devolved administrations or the importance of having plurality with regard to discipline or methodology.

The reliance on Connecting for Health NHS IT is not strong nor should it be. While this would have the potential to encourage research collaborations, IT systems become outdated easily. The NHS has a poor history of robustness within its IT systems and if predicated upon this link research could suffer if problems of IT interdigitation occurred.

**12. Given that NHS R&D is currently devolved, but that the work of Research Councils is not, how can these functions work best together to maximise the health and economic benefits to the UK?**

Devolution has resulted in the development of a number of health and social care strategies based on country differences and needs. Research should not ignore such fundamental differences rather it should support the development of the infrastructure within each of the four Countries of the UK to support their research priorities. A recent issue of Research Fortnight (Mar 06) showed that the MRC mostly funded universities in England and the other three countries did less well *pro rata*. Furthermore, in those universities where nursing and allied health professionals are the healthcare majority, the MRC funding was low. Therefore, if the new single fund merely became a bigger version of the MRC, research from the largest professional groups in the health service who have greatest contact with patients would decline. A new single funding stream must offer added value, build on current strengths and address the limitations of current funding streams.

**References**

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