**CookseyReview@hm-treasury.gsi.gov**

**Overview**
We welcome Sir David's initiative and this opportunity to respond to the Treasury consultation. To summarise the responses given below, we support the merger of Medical Research Council and Departments of Health R&D resources (along the same lines as the 'fusion' proposed in a recent *Lancet* editorial [1]) to bring together more effectively and strategically the leading public resource for research *activity* (MRC) and the leading public resource for research *infrastructure* (DH), within one synergistic environment. We also trust that this will align with Ian Gibson MP, that this simpler structure will enable 'a complete rethink' of medical science's relationship with society. [2]

**Standpoint**
This is written on behalf of the **Institute of Health and Social Care, Anglia Ruskin University**. The main academic areas of the Institute are: Health Visiting Nursing, Midwifery, Social Policy and Social Work, with additional areas including Public Health, Allied Health Professions and the Complementary Therapies. The author has personally, worked in two MRC units, a DH-funded research unit and the DH R&D Directorate, and led research projects in NHS, Local Authority, Voluntary Sector and Academic settings. He is a practitioner-Academician of the Academy of Social Sciences and a Fellow of the Royal Institute of Public Health.

**Question 1**
The MRC weaknesses:

- Over decades the MRC failed to develop the clinical research skills base in large professional groups like nursing or the therapy professions. [5] Their recent focus on 'experimental medicine' within teaching hospitals makes one wonder if they realise that the NHS also includes community health care, and that little money is left to improve the evidence base for community services [5], even though in 2006 the Government announced a wish to move another 5% of current hospital care into completely re-structured primary care services (via *Our Health, Our Care, Our Say*). This *narrowing* of the basis for health research capability will make it harder to address major needs like reducing health inequalities.[6] This Review of UK Health Research explicitly includes 'public health and social care research'. After the historic days of the 1940s work on TB and on child development, the MRC has subsequently lacked a strategic approach to public health, and the shambles of their health improvement initiative five years ago just illustrates how remote they have become from either the public or public health practitioners. This author chaired the Social Care Research Group and this is the area most neglected by the MRC: a recent conference to draw together 11 years' national policy of *promoting* social care R&D found a painful gap between a dynamic, inter-professional research community and *total* lack of funding. [7] The contributions of the ESRC and SCIE have been very modest, but at least they have been relevant to the 'research and training needs of social care'.

The DH weaknesses:

- The Department does not have the loyal cadre of 'old, white men' whose long term immersion in Laboratory settings makes them advocates for an unchanging MRC, e.g. in *The Times* newspaper. [8] For example, the advocate I know (and admire most) among these *Times* lobbyists, Dr. Sanger, obtained his PhD in 1943, five years before the NHS even came into existence. Potentially the most effective advocates for Department of Health-sponsored research are NHS patients, but most health researchers in contact with patients avoid the use of unethical 'shroud-waving' publicity.

**Question 2**
Scientific and organisational challenges.

Nurses make up the largest part of the NHS and private sector health workforce (over 600,000 registered). The last two decades have seen a better educated nursing workforce, and our study of nursing PhDs demonstrated in the last decade a growing research capacity and methodological capability. [9] *Best Research for Best Health* suggests that Nurses and Allied Health Professionals should frequently become 'Faculty' members of the National Institute of Health Research. The Government strategy *Modernising Nursing Careers* requires a substantial new cadre of clinical academics in nursing (to be followed by a similar initiative for Allied Health Professionals). After the last Research Assessment Exercise, HEFCE identified little Research Council funding for nursing research among the University departments (let alone among Nurses in practice). The DH has been involved in several imaginative 'research capacity development' initiatives, but there is still a huge *missed potential* for this large professional workforce, that has emerged from Higher Education, to contribute to health research.

The key gap in scientific support, that could produce Quick Wins for the *economy*, is the strategy *Health, work and well-being*. [10] Building on collaborative, public-private service initiatives like Vocational Rehabilitation and NHS Plus, workplace health could become a fruitful new objective for health research.[11]

A more substantial challenge facing health research is the overlap of 'health' and 'social care', beginning in mental health and learning disability partnerships and now extending to many types of service. [12] Working *across traditional boundaries* is a statutory requirement of the Children Act 2004, and within the outcomes framework for *Every Child Matters* there is an urgent need to relate research around 'Be Healthy' to the other ECM domains. By 2010, Children's Trusts with budgets held by local authority Education departments will co-ordinate most services for English children. To address long-term Treasury priorities (e.g. ending Child Poverty) the health role and impact of Children's Trusts need strategic attention. [13]

**Question 3**
Priorities.

Derek Wanless foresaw in his 2004 report for the Treasury an urgent need for a 'fully engaged' public and public health system. To prevent the NHS becoming overwhelmed by spiralling levels of chronic illness, service development and so an appropriate knowledge base are essential in two key public health priorities:

- Health Protection – the activities of the Health Protection Agency and the MRC programmes around communicable disease (e.g. TB or HIV) need to be integrated. Research training pathways in health protection are crucial for success, possibly including placements at the overseas MRC centres as well as under-resourced UK community services like G.U. Medicine or Respiratory Medicine. The author is involved in Emergency Planning, and can observe tremendous good will across the health protection field, but a ubiquitous lack of capacity, especially around unfamiliar pathogens.
- Health Promotion - there is a critical collapse of specialist, academic capacity in this area, which could accelerate with the coming RAE. [14] Improved health literacy for individuals, social marketing of behaviour change and the emancipation of socially excluded communities for health, all need a stronger research base.

Only 2.5% of total UK spending on health research relates to the 'primary prevention of disease' [15] and funding for public health research has just been cut drastically by the European Commission. [16]

In light of the current strategy *Best Research for Best Health,* there should be a question mark over lowering the spending on MRC Centres and Units that are not linked to clinical, NHS services and that are invisible to service user input in framing research questions. A continuing challenge to building a 'portfolio' of 'successful' projects, in Ivory Tower centres, was summarised from the experience of *Research Fortnight's* overview of grants: staff will not risk '*adventurous*' approaches to problems. [18]

**Question 4**
Long-term economic and social benefits

Although many claims have been offered for the economic benefits to the UK of biomedical research [1], the general quality of collaborations with industry [19] and the accuracy of past economic evaluations [20] have been questioned.

We are not convinced that evidence exists of social benefits (e.g. reduced inequalities[6] or improved family harmony) from 'a high quality biomedical research base'. However, when biomedical researchers move from the laboratory, into experimental trials that address *social needs* (such as the study of Omega-3 fish oil and children's behaviour in school)[21], the uptake of findings in the community can be widespread and rapid.

The needs for 'imaginative' clinical research, health services research and public health research [22] are widely reported by the Academy of Medical Sciences, by the Health Services Research Network and in the *Choosing Health* strategy. To address

health priorities, solidarity is needed, between researchers from different disciplines, and between such 'experts' and the public.[22]

Clearly, investigator-led research such as the new Research for Patient Benefit grant, is important to promote diverse, 'adventurous' ideas and to avoid what the Clinton administration in the USA called an *Ingenuity Gap*. Equally, priorities-led research is important where sustained collaborations need to be established, such as collaborative research to meet the grave challenge to UK health from increasing Obesity and Diabetes. We have seen the balance change over time when new challenges have arisen, such as HIV emerging in the early 1980s. It should be no surprise that the research community welcome more investigator-led research opportunities. However, from time to time the balance may need to shift in favour of new priorities, for example at some point (soon) the UK will need a robust knowledge base on climate change and health.

The sub-question on a balance between basic science, translational science and applied science may, perhaps, be based on the false assumption that these three activities always involve different people who work in different places. The recent study of Immunology and Microbiology research [23] found that the most productive scientists 'pursue a mix of clinical and basic research'. This implies that health funding systems (and co-location of departments) should enable individuals to participate in *both* basic *and* applied science.

**Question 5**
Research into practice and policy.

In 1991 the assumptions in *Research for Health* were of a linear progression from basic science research to the uptake of results in clinical practice. This linear progression was not found in rehabilitation settings, during *Channelling Research into Standard Practice* [24] but rather a dynamic and reciprocal pattern (technically a 'perichoresis') termed the *research-learning-practice dance*. [25] Recently, again within rehabilitation services, we have reported a phenomenon called *embracement,* in which groups of people with disabilities come together to help develop new treatments. [26]

A factor for success in influencing wider policy is to let groups of professionals choose the problems that *they* want help with, because they are likely to demonstrate rapid uptake of the findings (which are already eagerly awaited). For example, following professional concerns about foot care in the community, our small DH-funded project around podiatry that was carried out in 1999 [27] became the main research theme at the Millennium conference of the Society of Chiropodists and Podiatrists and then became the basis of their policy by the end of 2000. Our experience with four Allied Health Professions suggests that the uptake of research evidence depends critically on creating the right learning environment for discussion and reflection before either practitioners or managers take the risk of changing. [28]

Within the promotion of research-based practice and policy, it is important to remember that the research community needs to communicate not only with health professionals, but also with the *public.* [29, 30]

**Question 6**
Better links.

Generally speaking, there are currently three approaches to forging links across the whole field of health research.

- University settings can accommodate diverse types of research and researchers, and this co-location of interacting disciplines is in marked contrast to most specialist Research Centres. Within *Modernising Medical Careers*, [31] providing opportunities for individuals to gain experience of clinical practice, research *and* teaching underpins much planning for a future cohort of Clinical Academics. Modernising Nursing Careers is also likely to encourage multi-talented individuals.
- Individual specialists in 'pure medical science' could seek the 'radical new theories, technologies and therapies' for everybody and then share these with the less gifted 'mainstream' professionals. [32] Highly esteemed, charismatic individuals do sometimes have a wide influence on developments in health care, [33] but it is not clear how such champions should be selected and prepared for this role within the UK. In France *INSERM* and in Germany the *Max Planck Gesellschaft* do have strategies for nurturing influential research 'locomotives', that can drag a train of lesser researchers behind them, but the closest UK equivalent are probably Fellows of All Souls College in Oxford- and All Souls does not support Health research.
- The Department of Trade and Industry had a record of supporting networks to forge research links, such as the Foresight-funded *AgeNet*. Foresight's vision for *HealthCare 2020* included more such trans-disciplinary networking, but this was never implemented, following re-structuring at the DTI. To be sustainable, professional networks need to offer Added Value to their members, and several viable models have been suggested. [34] Within *Best Research for Best Health* the future of primary care research, in particular, will depend on new networks. Recent multi-centre research on existing primary care networks has identified those *systems* characteristics that successfully 'provide pathways to engage stakeholders from throughout the whole system'.[35]

The Academy of Social Sciences has looked extensively at the 'links' between health researchers and social scientists. [12] One especially fruitful forum for interaction has been the Subject Centres (e.g. *MeDeV*) of the Higher Education Academy. [36]

**Question 7**
Translation, entrepreneurship and innovation.

The post 1992 'Mainstream Universities' are the most efficient at generating income from business, [37] but these receive only a tiny proportion of Government funds for Health research. The Academy of Social Sciences includes economists, market researchers and management scientists (areas of expertise not common among clinical researchers) and has been considering the ecology of entrepreneurship and innovation. The Academy reports it has much to offer in Knowledge Transfer Partnerships, especially through its understanding of the movement of people between sectors. [38] A

key recommendation in response to the *Science and innovation investment framework 2004-2014* was that some 'multi-disciplinary or problem-focused, high risk proposals' that have significant potential for 'breakthroughs' deserve support. [38]

The ESRC recently funded research on translation across two key, priority areas for Health research: stem cell science and diabetes. [39] A recipe for success here was 'reciprocal interaction' between the 'two cultures' of laboratory and clinic. This interaction could begin during research training, and Anglia Ruskin has been investigating *inter-professional* doctoral programmes, for potential research leaders of the future. [40]

**Question 8**
Infrastructure.

The effective use of funding requires the 'fusion' of Medical Research Council and Departments of Health R&D capacity [1] to bring together more effectively and strategically the leading public resource for research *activity* (MRC) and the leading public resource for research *infrastructure* (DH), within one synergy. This public sector fusion should take place against a transparent basis of assessed 'health needs' and steps to build 'public confidence'. [41]

Rather than thinking in terms of 'support the work of NICE', the new system should maintain a *dialogue* with NICE on health needs and clinical innovation. A similar dialogue will be needed between those funding capacity for *health services research* and the Healthcare Commission.

Two obvious 'market failures' for recent health research concern the Built Environment and Health, and the MMR scandal.

The new Department for Communities and Local Government should co-operate closely with the research community for health and social care (e.g. the NIHR) to address the vital interaction of good housing and good health. A major lesson from the MMR tragedy relates to the need for improved public-policy-scientific 'solidarity'. [22]

**Question 9**
Other countries.

The people consulted who are of an older generation will remember trying to work with the All Soviet Institutes of the USSR. It will be important, right from the beginning, to ensure that the centralising initiative in the UK represented by the NIHR does not promote the patronage and inertia characteristic of those old, Soviet institutions. *INSERM* in France and the *Max Planck Gesellschaft* in Germany provide interesting alternative models, which could be tested for compatibility through EU Framework collaborations with the new UK bodies.

**Question 10**
Single fund.

We strongly support a merged, single fund (see Question 8 reasons, above). When this author was a commissioner in 2000, the precedent of joint funding for MRC/DH health services research fellowships ran smoothly and efficiently, and this year the ambitious MRC/DH sexual health research programme shows how funding synergy can work.

Ideally, accountability should be at Cabinet level, as was the case for public health in 1998 when there was a Cabinet-level Minister for Public Health. Across the UK the population is still benefiting from the Acheson Inquiry produced during that period. However, going back to the days of the Wilson Government's *White Hot Heat of Technology* and the *Concorde* programme, science initiatives led from 10 Downing Street have not often proved sustained over time. Therefore a joint Health Research Board representing both DH and DTI is probably the simplest solution to the needs for public and legal accountability.

**Question 11**
Connecting for Health.

In relation to the development of high quality Disease Registers, there were long term discussions between the DH, National Statistics and the Voluntary Sector (who fund many of the current small-scale registers).

Potentially, patient-centred health events linkage and economic research on health benefit groups could thrive with Connecting for Health. However, researchers need to be convinced that this complex IT system will be delivered in an operational, coherent and ubiquitous form. There are also legal issues related to the personal information section of the Health and Social Care Act 2001 that have not been resolved, for the research community.

The only promising development so far has been the enthusiastic response of most GPs to the *QoF* financial rewards, for tracing and reviewing particular groups of patients on each GP list.

**Question 12**
Devolution.

The key issue is *equity* across Regions, especially those many parts of England where the MRC have no research centres.[42] Health care is delivered everywhere, but the 'Golden Triangle' of the Medical Schools in London, Cambridge and Oxford concentrate an unjustifiable proportion of the total research resources. The four Higher Education Funding Councils are preparing the RAE quality-related funding rules for 2010 onwards, and the devolved Departments of Health, with the MRC, should work together to produce a fair and *sustainable* funding system for future generations of health researchers.

Prof. Woody Caan
Anglia Ruskin University
Chelmsford CM1 1SQ.

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