

NHS INNOVATIONS LONDON

Response to the Cooksey Review of UK UK Health Research

1. Strengths & Weaknesses

MRC has an established and proven infrastructure for dealing with large volumes of grant applications and for coordinating peer review. Much of the investment is in academically based, fundamental, long-term research although clinical trials are funded.

NHS R&D has a long standing focus on translating research outcomes into clinical practice, thereby generating patient and/or economic benefit from the investment in research. The NHS also provides the infrastructure for clinical research from industrial partners and for social care.

Historically, in the NHS, insufficient management capacity has been available to conduct R&D and clinical research activities because the focus of most NHS staff is on patient care. More recently, some Trusts have invested in professional management capability for these activities; however the funding of these activities is often difficult.

The MRC has historically provided a good training ground for some specializations (e.g. molecular biology) where there are directly transferable laboratory skills to the industrial and academic sectors.

Likewise the NHS provides a good training ground in a wide variety of applied clinical areas.

However, it is clear that when recruiting graduates from both groups:

- (a) There is a shortage of management, business and project management skills that are needed to deliver and coordinate projects efficiently, promote outcome translation and improve links with third parties.
- (b) There appears to be a general weakness in some basic skills.

- (c) There is an extreme skill shortage in certain allied areas that are needed to progress some projects, e.g. engineers, for medical equipment and devices.

2. & 3. Challenges and Priorities

Healthcare needs and healthcare delivery are rapidly changing. Much of this is driven by the aging/vulnerable populations, access to new technology and increasing costs. It is a prerequisite that the workforce needed to address these needs must also change as must the methods of preventative medicine, treatment and care.

Over the last 20 years much investment in research has been based on the desire to “find a cure for cancer” or to reduce heart disease. Inherent in this strategy has been a focus on new drug development.

In the new economy, substantial investment will be required to develop new easy-to-use technologies for use in the community including diagnostics, assessment and treatment of patients, home monitoring and home care.

A focus only on basic research in terms of priorities, measurement of academic achievement and resource allocation must be avoided. In recent decades we have learnt that links between basic research and product or treatment outcomes do not occur spontaneously. More emphasis should be placed on translation of basic research and applied research to ensure a closer link to positive and faster patient outcomes. A balance needs to be found between the two.

Currently the NHS and science based industries are not popular as a career options. This is not helped by the poor media coverage that NHS has received and the negative impression that this has created in young people who are perhaps less idealistic about the NHS than previous generations. Jobs in science and in the NHS are extremely fulfilling and these need to be communicated effectively to those in education. The NHS Management Trainee scheme demonstrates what can be achieved and more training schemes should be developed that are targeted to attract school leavers, graduates and post-graduates into areas of science and health where they are most needed.

4. Balance between short and long term research

The priority in the next two decades must be to identify those areas of healthcare that can be addressed quickly and to invest in activities that tackle them as quickly as possible. Such a focused effort will have both major positive healthcare and economic impacts and create business opportunities for UK industry.

Secondly, analysis of the changing health care needs of society over the next 20 years indicate:

- (a) A growth in untreatable diseases (e.g. TB, STDs) and growth in the spread of disease (e.g. malaria) from a globally migrating population.
- (b) The aging population having the largest healthcare economic impact.
- (c) Rapid growth in mental health disorders.
- (d) The need to maintain musculoskeletal integrity to ensure maximum pain free mobility and function

It is important that the level of investment in research on the above and other areas of changing health management importance is made now such that it will allow for the future delivery of appropriate healthcare in a timely fashion.

5. Use of Publicly-funded Research

There are many clear examples of success stories. However, there are also numerous examples of developments which have not reached market or have reached market slowly because of an inappropriate funding regime with which to migrate research through development to a stage where it is ready to be taken up by industry.

The Government's current strategy of investing in translational research and proof-of-concept funding is beginning to work and should be expanded.

Also, the Government's strategy should be extended to support the next level beyond proof-of-concept funding for key healthcare

development areas until the private equity market recovers for this sector.

6. Links between basic, translational and applied research

The current HEIF program is designed to bring academia and industry together. A similar program between the NHS and academia would be the catalyst needed to stimulate more collaboration between academia, medical schools and the NHS. This type of funding brings motivated individuals (not organizations) together to make things happen.

Although the concept for the NHS Health Technology Cooperatives (HTCs) is a good one, the current HTC pilot study is inadequate to fill this gap.

7. How can Government encourage innovation

The current NHS Innovations Hubs are beginning to show results; however the arena that they work in is difficult due to the fact that the priorities of the innovators are usually related to the immediate healthcare of their patients.

If the government wishes to encourage innovation in health research then this has to be an acceptable measurable objective that is set for the NHS Trusts and which is promoted as part of their role. It would also need to be funded in a manner that would motivate healthcare researchers to deliver.

Again the Proof-of-Concept funding is having a dramatic positive impact on the ability of the Trust to progress their innovations through virtual R&D managed by the NHS Innovations Hubs.

8. Effective use of Healthcare Funding

It is important that Government objectively reviews its short term and long term health strategy and then matches its research funding program each year to meet the key objectives. These key areas need to be clearly identified and sustained. Evidence suggest that large centralized organizations are not the most productive in this respect and so the funding should be disseminated to experts in centers of

excellence and close to appropriate patient populations. It is also important from a financial perspective to try to eliminate the considerable duplication which has taken place.

9. Lessons from abroad - changes to Health Research Funding?

That large scale institutes such as those found in the USA, Germany and France lead to large scale inefficiencies.

That funding of research per se does not result in translation to healthcare developments but that supplementary training of research staff in other areas e.g. innovation management, intellectual property and business skills is of enormous benefit (e.g. USA).

10. Merger of MRC/NHS R&D?

The MRC and NHS R&D function at the basic and applied ends of research and operate completely differently. While they should not be merged, it may be beneficial to provide more funding for joint research projects in order to bring the basic research through to practice.

11. Connecting for Health

Currently, the impact of Connecting for Health is not clear but the requirement remains for obtaining the tremendous added value of state-of-the-art ICT systems.

12. Working together

To fund joint projects which meet the strategic health objectives of the Government and brings the Research Councils closer to the applied research centers.