GETTING THE BEST FROM RESEARCH FUNDING

It is just over a year since David Cooksey published his plans to reform UK research funding. **Geoff Watts** reports on how the ideas are working

“It ain't broke, but let's fix it anyway.” Although this is not a sentence you will find anywhere in the text of David Cooksey's 2006 report on the funding of medical research in Britain,¹ this coarse description does capture the thinking that underpins it. Generous praise for the achievements of UK health and medical research—then a “but.” It's rather like a school report: doing pretty well, but could do still better. And this teacher is having his way: the report's central recommendations are being implemented. So what is happening—and should researchers be nervous?

It was Gordon Brown who set the ball rolling a couple of years ago with his announcement that Medical Research Council and National Health Service research and development funds were to be combined in one ring fenced pot to be held jointly by the

secretaries of state for health and (as was) trade and industry. Brown was responding to the widely held view that too many of the products of British biomedical research have been left for others to exploit commercially. He had been persuaded that a single research fund, strategically deployed and with economic benefits in mind, could improve matters. The plan had three objectives (box). The man chosen to devise a means of meeting them, David Cooksey, has experience not only in business but in the oversight of medical research, including a governorship of the Wellcome Trust.

In the introduction to his report, Sir David talked of “perverse incentives that value basic science more highly than applied research.” From the publication policies of top academic journals to the criteria of excellence employed in the universities' research assessment exercise, fundamental insights usually

trump practical application. He also referred to “a lack of commitment to R&D [research and development] in the NHS when massive pressure to achieve front line service targets [risks] diverting funds away from R&D and the innovation that flows from it.”

Of the two existing agencies that fund research, the MRC is principally responsible for basic work and the National Institute for Health Research (NIHR) for applied research. The NIHR—itself still a fledgling creation—was at the time of the report only about a year into the implementation of *Best research for best health*,² a new strategy with objectives that chimed with many of Sir David's aspirations. So how best to proceed?

Sir David could have advocated a full merger: the abolition of the MRC and the NIHR in favour of a new research council or special health authority. He decided against this, reckoning that a merger would be internally disruptive and might in practice amount to an MRC takeover. Hence the decision to keep both, but to set up an overarching body—the Office for Strategic Coordination of Health Research (OSCHR, pronounced oscar)—to allocate funds and lay down the ground rules.

It comes as no surprise to learn that the office's first chairman, John Bell, president of the Academy of Medical Sciences, thinks Sir David was right to keep the two bodies. “I don't think that a research council or any other organisation that sat outside the Department of Health could properly run research activity in hospitals.” Neither, conversely, can he imagine that having the MRC moving into the Department of Health would have worked, not least because the basic research community in medicine has increasingly strong links with so many other non-medical sciences.

COOKSEY REPORT IN A NUTSHELL

Creation of a new overarching body (the Office for Strategic Coordination of Health Research) to:

- Set the research strategy for (and with advice of) MRC and NIHR
- Estimate the required budget and submit it to the Treasury
- Monitor progress
- Identify UK priority projects
- Communicate research priorities to industry

Encourage greater partnership between government, health industries, and research charities

Create a joint MRC-NIHR translational medicine funding board to set and operate a translational research strategy

Encourage innovation in drug development and other technologies, not least through a more proactive and systematic approach to their uptake by the NHS and by piloting a new drug development pathway

Reformulation of NIHR as a real rather than a virtual institute

Clearer demarcation of responsibility between MRC and NIHR

No reduction in funding for basic research, but a “rebalancing” relative to translational and applied research through a weighting in their favour in future increases

Cooksey: decided against merging the MRC and NIHR

One of Professor Bell's tasks is to foster a cooperative relationship between the MRC and NIHR. So far he seems content; disagreements between them—few, apparently—have been manageable. As director of research and development at the Department of Health, Sally Davies leads the NIHR contingent. Where the two bodies overlap she concedes that there has been some pushing and shoving—though nothing serious: “Never at daggers drawn. But we’ve had some robust debate behind closed doors.” The MRC’s chief executive, Leszek Borysiewicz, is equally cheerful: “We’ve now resolved virtually every issue there was around who leads on which aspects of OSCHR.”

Putting research into practice

In keeping with the report's emphasis on the need to get more scientific advances more rapidly into routine clinical use, one of the OSCHR's first actions was to create a board to oversee translational medicine. This has been meeting since July, says Professor Bell. “It’s come up with a set of plans for what will be done from very early experimental studies through to large scale trials.” The MRC and the NIHR have agreed the plans, and calls for new research proposals have gone out.

Although the NHS should be an ideal setting in which to do clinical research, this has never been the case. As Universities UK points out, “NHS funding that should have been invested in research was often diverted into patient care.”⁷³ The Cooksey report acknowledges this, and applauds the efforts already being made—notably through *Best research for best health* policies—to make the NHS more sympathetic to research. Professor Davies believes that these efforts are already bearing fruit. “It isn’t the stony field that I looked at when I started [as director of research and development at the Department of Health] just over three years ago.” She talks of the networks that the UK Clinical Research Collaboration is setting up to manage research in the NHS and also points out that hospitals now have financial incentives to cooperate. Soon, she believes, the environment will be totally different. A review published this week of progress so far seems to support her optimism.⁴

One area where Professor Bell admits that

the Cooksey report has created some nervousness is in the funding of basic research. The Royal Society commented that although Sir David wanted funding for this research to be sustained, “we are concerned that in an inflationary environment this, in effect, could mean that funds for basic and blue skies research decline.”⁷⁵ The view is echoed by Universities UK. In the foreword to a recent briefing document on research policy,³ its president, Rick Trainor, remarks that “the new emphasis on more immediate benefits for patients raises questions about the priority that will be given to vital basic research.”

Professor Bell, by contrast, takes the view that the 2007 comprehensive spending review settlement (which envisages the single health fund reaching £1.7bn by 2010-11) should overcome these anxieties. Professor Borysiewicz is equally bullish: “We have funding for basic science which I didn’t need to pilfer in order to push forward the translation agenda.” The government, he adds, recognises that basic science is fundamental to the UK’s competitive position. “The fact that they decided not to rob Peter to pay Paul is absolutely right.”

Among the trickier of Sir David’s recommendations was the concept of UK research priorities. Each of the country’s devolved health departments will have its own ideas on what they are. And there will be health priorities, says Professor Bell, that don’t end up as research priorities. Why? Because, scientifically speaking, no good research leads have been identified. But is there a danger of researchers being beguiled or even

bludgeoned into working on a topic simply because it has been labelled a priority? “No, no, trust me. We won’t be bludgeoned into anything,” insists Professor Bell.

Professors Borysiewicz and Davies are equally firm that only good research bids will be funded. “Quality must reign,” says Professor Davies. “There’s no point in spending public money, or anyone’s money, on stuff that isn’t of high quality.”

The concept of a UK priority might also seem to spell bad news for work on tropical and other global medicine issues with no specific relevance to Britain. But again Professors Davies and Borysiewicz say not. The existing commitment, they insist, will be maintained.

Some issues are still to be decided. The suggestion that NIHR becomes a real rather than a virtual institute, for example. “I can see advantages and disadvantages,” Professor Davies says. “I think it’s a very fine balance.” A decision on this seems unlikely to be taken soon.

OBJECTIVES OF REFORM

Health—Research priorities to be closely aligned with government health objectives. Research to be a greater priority for the NHS

Science—Maintaining the UK as a world class performer in basic biomedical science. Support for excellence across the full spectrum of research including clinical and public health research

Economic—More translational research to ensure that the science base delivers economic as well as health benefits

"I don't think that a research council or any other organisation that sat outside the Department of Health could properly run research activity in hospitals"

John Bell, first chairman of the Office for Strategic Coordination of Health Research

"We have funding for basic science which I didn't need to pilfer in order to push forward the translation agenda"

Leszek Borysiewicz, chief executive of the Medical Research Council

"Quality must reign. There's no point in spending public money, or anyone's money, on stuff that isn't of high quality"

Sally Davies, director of research and development at the Department of Health and leader of the NIHR contingent

head of media relations, Richard Ley, points out that this has drawbacks as well as advantages. "It might work well in helping international acceptance of medicines because NICE is well regarded in many countries. On the other side there's the question of how far one can go in tailoring clinical trials to UK requirements when you're talking about global medicines." The industry will need some persuasion before it wholeheartedly endorses this section of Cooksey's report.

What's to come?

As of the beginning of this year OSCHR and its twin battalions seem to be on course and marching in good order. A £12m initiative has been launched this week to set up regional hubs of excellence to develop better methods for conducting clinical trials. There will be eight hubs and bids from academic institutions outside the so called "golden triangle" of London, Oxford, and Cambridge will be considered most favourably. Although the initiative comes from both the MRC and the NIHR, the funding is coming from the MRC.

All good stuff. None the less, anyone familiar with the succession of ill considered and bureaucratic reorganisations that have plagued the health service during recent decades may, quite understandably, feel some alarm at the prospect of similar upheavals being visited on research. So, to repeat the opening question, should researchers be nervous? Thus far, at any rate, there have been no major protests and few lasting signs of deep consternation. So could this prove to be a reorganisation prompted by a correct diagnosis and followed by a prescription of the appropriate remedy? The final verdict will come later. For the moment, though, that is more or less how it looks.

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- 1 Cooksey D. *A review of UK health research funding*. London: HM Treasury, 2006. www.hm-treasury.gov.uk/media/4/A/pbr06_cooksey_final_report_636.pdf.
- 2 Department of Health. *Best research for best health*. 2006. www.dh.gov.uk (search for 6050).
- 3 Universities UK. *Testing times: UK health research in a global market place*. London: Universities UK, 2007.
- 4 National Institute for Health Research. *Transforming health research: the first two years*. www.nihr.ac.uk/publications.aspx.
- 5 Royal Society. *Response to Cooksey review of UK health research*. 2006. <http://royalsociety.org/displaypagedoc.asp?id=23824>.

Equally undecided is the issue of evaluation. The Treasury will, presumably, want to know if the new funding system has worked. "We don't have a coherent plan as yet," Professor Bell admits. "But we're working on it." Professor Davies adds that efforts are already being made to find ways to evaluate NIHR. Professor Borysiewicz points to the MRC's obvious difficulty that laboratory projects such as work on stem cells may take a decade to reach routine use. Only in hindsight is it possible to judge the wisdom of funding decisions. And that, to a politician concerned with the here and now, can sound suspiciously like special pleading.

Other views

With charities accounting for roughly a third of all spending on medical and health research in the UK, their views on the Cooksey report can hardly be ignored. For the present they too seem satisfied with what's been happening. Simon Denegri, chief executive of the Association of Medical Research Charities, says that so long as the Cooksey report fulfils its pledge of building on the collaborative approach already being followed by the UK Clinical Research Collaboration, most charities will probably remain content. But he still wonders about priorities: "How are we going to marry up what patients need

with what are scientifically the best opportunities for the UK?"

The Cooksey report also dealt with the changes that are taking place in drug discovery. This, it pointed out, is throwing up new forms of treatment ranging from molecular medicines to gene therapy. Many of these are expensive and, increasingly, designed for smaller groups of patients: personalised medicine, as it's commonly known. This development has implications for pharmaceutical business models and for costs.

The report's remedy is a revised pathway for drug development. This new "critical path" would involve several changes including a more rapid discrimination between potential therapies at earlier stages of their development, thereby reducing the failure rate and the cost; the conditional licensing of new drugs, also at an earlier stage; and early consultations with the National Institute for Health and Clinical Excellence (NICE) to facilitate the assessment of new drugs.

When the Cooksey report was published, the Association of the British Pharmaceutical Industry gave it a warm welcome, a view which it still holds. Nor does the industry have any principled objections to this new way of doing things. But it does raise questions of practicability. On the earlier involvement of NICE, for example, the association's