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Report

Research in nursing and allied health professions

**Report of the Task Group 3 to HEFCE
and the Department of Health**

Contents

Executive summary	2
Part one: The current situation	
1 Background	6
2 The current funding system	8
3 The case for health professions research	15
4 Problems of supply and demand	18
5 Potential for improvement	22
Part two: Supporting development	
6 Establishing a new fund, its duration and governance	24
7 Career development and research opportunities	26
8 Interdisciplinarity and collaboration	29
Annexes	
Annex A Summary of recommendations	31
Annex B Task Group 3: membership and terms of reference	33
Annex C Proposals for a capacity-building fund for research in nursing and allied health professions	35
Annex D Stages of enhancing research	37
Annex E Data sources for Figures 1 and 2	40
Annex F Glossary	42

Research in nursing and allied health professions

Report of the Task Group 3 to HEFCE and the Department of Health

To	Heads of HEFCE-funded higher education institutions Heads of universities in Northern Ireland
Of interest to those responsible for	Research funding; departments dedicated to or incorporating nursing, midwifery, health visiting or allied health professions within HEIs; those within the Department of Health or other organisations concerned with research in departments of the type described above.
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Executive summary

Purpose

1. This report presents the findings and recommendations of Task Group 3, a working group set up jointly by the HEFCE and the Department of Health. Our remit was to explore ways of better enabling the research base to contribute to knowledge and the delivery of health services, by nurses and members of the allied health professions (AHPs).¹

Key points

2. The recommendations cover all research relevant to nursing and AHPs regardless of whether it is undertaken by members of the professions concerned. These are summarised in Annex A.

3. Our examination of the current funding system for health professions research (Chapter 2) shows that it is characterised by two types of underfunding:

- underfunding relative to comparable professions: education research receives 4.5 times as much funding as nursing research. For some AHPs both research capacity and funding are scarcely measurable

¹ See glossary for definition of allied health professions.

- underfunding relative to the size of the professions: only 3.9 per cent of nursing academics are defined as research staff, whereas there are 1,600 nurses for every researcher whose salary costs are supported through funding council research grant.

4. Funding is also skewed towards short-term projects. There is a shortage of funding for the type of co-ordinated programme funding and follow-up work associated with projects supported by processes dependent upon peer review, such as the Research Assessment Exercise (RAE). This may be responsible for the perception that researchers have to choose between targeting either 'RAE research' or 'NHS research'.

5. We argue that this is dangerous: it is important that high quality research is encouraged – whether blue skies, or research of the most immediate applicability – and that all types of research develop alongside each other. Only this approach will develop the knowledge base while developing the capacity to produce high quality research to inform practice.

6. We consider that there is a compelling case for research relevant to nursing and allied health professions (Chapter 3). This is based on the needs to:

- ensure that higher education institutions (HEIs) are able to train research-aware professionals
- facilitate research awareness for practitioners and administrators, to support evidence-based practice and policy
- understand the research priorities and needs of the health service
- enable specific interventions or specific approaches and phenomena to be evaluated
- establish the knowledge base and ensure that there is scope to undertake underpinning work informing directly applicable research.

7. The historic lack of research funding for nursing and AHPs has had a debilitating effect (Chapter 4). However, there is now a consensus for action to develop research capacity, embracing not only the HEFCE and the DH but Research Councils, research charities and representatives of the professions themselves.

8. We maintain that the research base has the potential to deliver improvement provided that there is additional support (Chapter 5). We note that the following indicators are all improving, although in most cases from a very low base:

- RAE ratings
- numbers of research-active staff submitted to the RAE
- levels of research income

- postgraduate student numbers
- collaborations with researchers in other disciplines.

9. In the absence of development funding, it is unlikely that it will be economic for HEIs to maintain this improvement to the point where it becomes self-sustaining.

10. Our main recommendation for delivering improvement is the establishment of a fund to develop and expand the capacity for high quality research in nursing and AHPs (Chapter 6 and Annex C).

11. The purpose of such a fund should be to develop capacity in priority areas – not as a primary aim, to fund specific research projects; however in pursuit of this aim it might support research projects as well as research posts or infrastructure projects.

12. We suggest that such a fund be controlled by a governing board, which would decide on funding priorities. We envisage that this governing board would be expected to meet specific performance targets over the period of its planned existence, which we suggest should be not less than seven years.

13. We also recommend that efforts are made by the governing board, together with other funders, to co-ordinate funding priorities.

14. We envisage the governing board having the freedom to review its funding priorities and to allocate resources in whatever way it feels is most likely to satisfy its objectives.

15. There is a need to support career development and research opportunities for health professions researchers, teacher researchers and clinician-researchers (Chapter 7). The proposed fund has a role in supporting research training and research career development, and we consider there are other activities that require investment either from the fund or from some other source.

16. We consider that it is essential that teachers in HEIs are familiar with research techniques and where possible are active researchers.

17. We argue that Workforce Development Confederations should fund the following as part of their support for the development of an appropriately qualified teaching workforce:

- PhD opportunities for staff employed by HEIs whose posts are funded for teaching through Multi-Professional Education and Training (MPET) funds
- some time for staff employed in HEIs, whose posts are funded by MPET, to undertake research.

18. Our analysis suggests that the new fund is likely to support the following activities, unless the governing board is satisfied through the co-ordinating mechanisms that they are adequately supported:

- PhD opportunities for newly qualified staff and other non-MPET funded candidates
- full-time post-doctoral research posts
- time for research for academic staff in clinical posts
- provision for experienced research staff (research leaders) to be 'bought out' of clinical and/or teaching duties to supervise, lead and otherwise pursue research.

19. Funding for capital items should fall within the remit of the proposed fund (but not necessarily exclusively so).

20. We believe in the importance of promoting collaboration between health professions and research departments, and in interdisciplinary arrangements drawing in researchers from other traditions (Chapter 8). We recommend that a portion of the fund be earmarked to develop research networks and structures for dissemination within and beyond the academic setting.

21. We reject the notion that funders should attempt to direct a concentration of research activity into a few centres of excellence. We do however consider that grants from the proposed fund should be allocated on the basis of quality not simply fitness for purpose.

22. We are confident that, by recognising and rewarding quality, these proposals will provide scope for the best centres to compete internationally in their areas of strength, and are clear that funding arrangements should provide them with the means to do so. At the same time, our proposals envisage the development of research capacity beyond centres that are currently strong.

1 Background

The HEFCE and the Department of Health: a strategic partnership

23. Since April 2000, the HEFCE and the Department of Health (DH) have been committed to a strategic alliance on research and development (R&D) for health and social care.² The statement of strategic alliance defines the role of the HEFCE as the funding of infrastructure in higher education institutions (HEIs). The role of the DH is multi-layered because the relationship between research investment and the department's responsibility to optimise service delivery is complex. However it was agreed to include the following roles:

- guaranteeing the necessary research capacity and capability at national and local level
- funding research infrastructure within the NHS
- funding research projects and programmes.

24. The DH also has a strong interest as a user of research.

25. In addition, the HEFCE has signalled a willingness to become involved in the development of research capacity where there is a clear public interest in so doing. For example, it supports the development of pedagogic research through the Teaching and Learning Research Programme.³ More recently, the HEFCE has committed to exploring the feasibility of a capability fund, to guarantee seed-corn funding for the development and exploration of research agendas relevant to key stakeholder groups.⁴

26. The discussions which ultimately led to the strategic alliance identified nursing and allied health professions (AHPs) as the area most in need of action to develop research capacity.

27. The membership and terms of reference of the group are given in Annex B. A full glossary is given in Annex F.

Establishing the evidence base

28. We recognised at an early stage that we would require detailed information concerning the current extent and nature of health professions research, and the state of the human and physical infrastructure supporting it. It became clear that much of this information was either uncollected or uncollated. Acting on the advice of the group, the HEFCE commissioned the Centre for Policy in Nursing Research at the London School of Hygiene and Tropical Medicine, and the Commonwealth Higher Education Management Service (collectively

²'Statement of strategic alliance on research and development for health and social care' (HEFCE/Department of Health 2000).

³ See TLRP web-site: www.ex.ac.uk/ESRC-TLRP.

⁴ 'Review of research: report on consultation' (HEFCE 01/17).

referred to as CPNR/CHEMS) to investigate the current state of the research base and its contribution to other activities. Their report, upon which we have drawn heavily, is available with this document on the HEFCE web-site www.hefce.ac.uk under 'Publications'. We would commend it to all interested parties as an authoritative account of the state of health professions research in the UK, and of the practical and policy effects of the current funding environment. In particular we would like to thank Anne-Marie Rafferty, John Fielden and their collaborators for their work on that report.

2 The current funding system

Sources of funding

HEFCE grant (England only)

29. In 2000-01 just over £3 million of quality-related (QR) HEFCE funding for research was distributed by formula, based upon submissions to panel 10 (nursing) in the Research Assessment Exercise (RAE). A total of £7.7 million was allocated on the basis of submissions to panel 11 (professions allied to medicine or PAMs).⁵ These levels of funding reflect the ratings achieved and the number of staff submitted as research-active; they do not reflect a policy decision on the level of funding to be directed to nursing and PAMs.

30. The RAE is a peer review process to assess the quality of research. RAE panels are not allowed to consider the relevance of research to any political or strategic agenda: they are asked to make judgements purely on the basis of the quality of the research submitted and on the research environment of the department(s) concerned. Researchers in any discipline are allowed to submit to RAE panels 10 and 11.

Department of Health funding

31. In 1998-99 UK HEIs received £7.4 million from government departments (excluding the funding councils and Research Councils) for research entered under cost centre 5 (nursing and paramedical studies, which includes many of the AHPs). It is safe to assume that the DH/NHS accounted for all but a tiny fraction of this. The equivalent figure for health and community studies was £10.4 million⁶ (which includes other AHPs alongside social work and community studies, see Annex E). Both these figures are low in relation to professional numbers (and in the case of nursing in relation to academic numbers). However, they are very high in relation to levels of HEFCE or research council funding.

32. The DH has announced that its R&D funds will now be divided into two strands:⁷

- NHS Support for Science funding will support the NHS costs of undertaking research sponsored by Research Councils and certain charitable funders

⁵ These funds are a component in the block grant awarded by the HEFCE to HEIs. Institutions have absolute discretion in allocating their grant internally. Therefore, the funds invested by institutions in departments and groups undertaking health professions research may not be equivalent to the figures for QR allocations. Similarly it is not possible to identify RAE Units of Assessment (UoAs) exactly with particular fields of study: in particular, UoA 11 (Professions Allied to Medicine) includes some fields of study lying outside the scope of the allied health professions (principally optometry).

⁶ Source: Higher Education Statistics Agency (HESA).

⁷ DH 2001.

- Priorities and Needs funding will support research into areas of strategic importance. It will include provision for building capacity as well as supporting research projects and programmes.⁸

Other funders

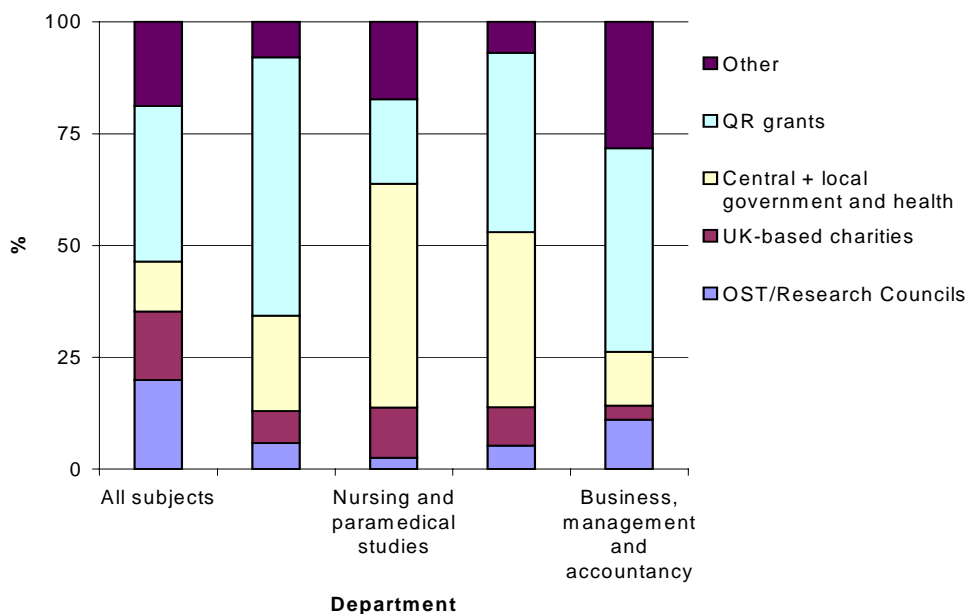
33. Other funders, in particular charities and Research Councils, play an important and growing role in funding health professions research, although Research Council funding has been less prominent within the funding mix than in most scientific disciplines. However, there are indications that this may be changing.⁹

34. Figure 1 shows the breakdown of research funding reported by HEIs for nursing, health and community studies and comparable professions.

⁸ 'A key use of NHS Priorities and Needs R&D funding will be to contribute to the national effort in developing and sustaining the capacity to undertake R&D in areas of importance to the NHS. The Department will work with the NHS and universities, other government departments and agencies, the Research Councils and the medical research charities to identify current and future needs for R&D skills and their potential configuration, and identify how the NHS and its partners can help to remedy shortages' DH 2001 paragraph 2.32.

⁹ There are indications that medical charities are increasingly keen to support health professions research. For example, PPP Healthcare Trust, a new entrant to the field, has already shown interest in supporting projects involving nurses and AHPs; and the Medical Research Council has indicated a willingness to work with the HEFCE and DH to build capacity. See CPNR/CHEMS 'Promoting research in nursing and professions allied to medicine', Chapter 5 for a fuller discussion.

Figure 1 Funding sources (percentage of total funding)



Source: HESA data for 1998-99 for the UK (see Annex E for details).

35. Public funds for research in higher education are distributed through the ‘dual support’ system, with core funding from the HEFCE and grants from the Research Councils and other government departments. Under this system, HEIs are expected to support a large proportion of the indirect costs of publicly funded research (sometimes rather loosely referred to as ‘infrastructure’) through QR funds from the HEFCE, as well as supporting the ‘curiosity-driven research’ crucial to a lively research culture. In subjects where, owing to a relatively weak performance in the RAE, QR funding is low, HEIs are effectively forced to accept a loss on publicly and charitably funded projects, providing an incentive to reduce investment in those subjects. However, in a recent HEFCE consultation the HE community and its stakeholders overwhelmingly rejected the notion of a ‘policy factor’ which would divert more funds to subjects deemed of particular national importance. They felt that this would undermine the principle that funding should be awarded on the basis of quality.¹⁰

36. This poses a particular problem in nursing. QR funding is not an overhead: the amount of funding received relative to income from public and charitable research grants will vary depending on the quality of research as measured by the RAE. In nursing this amount is only 40 per cent of the average across all subjects.¹¹ HEIs are responsible for deciding how to allocate their HEFCE grant and are free to spend it on nursing research. However, it is not surprising that they report that they are unable to provide staff with time and facilities for

¹⁰ ‘Review of research: report on consultation’ (HEFCE 01/17).

¹¹ Based on figures for 1998-99 supplied by HESA.

research or research training. Nor is it surprising that this has an effect upon the quality and quantity of the research which can be produced, which in turn affects the RAE rating.¹²

Peer review processes

37. Although not as large as in other disciplines, the proportion of funding dependent upon peer review in nursing and AHPs is still significant.

38. Institutions perceive that they are obliged to make a strategic choice between targeting 'RAE research' and 'NHS research'. We regard this distinction as over-simplified, and are concerned that these perceptions may inform behaviour. We do not accept that the criteria or working methods of RAE panels 10 and 11 are anything other than impartial between research of direct and indirect application.¹³ However, we do not dismiss the possibility that funding opportunities may oblige departments to target 'consultancy' research that responds to the immediate needs of the sponsor, rather than aiming to broaden knowledge and understanding.

39. It is, of course, entirely to be welcomed if university departments undertake research of local relevance for the NHS on this basis. However, there is a danger that if this type of activity predominates then the research system may become unbalanced. In Chapter 2 we discuss the importance of ensuring that all types of research are supported. There is also a need to ensure that funding for research is driven by quality as much as by fitness for purpose. We do not propose that existing funding streams be reformed to enable this to happen, because we accept that funders behave rationally in pursuit of their own objectives. Instead we propose that the additional investment we believe is needed should be allocated strictly on the basis of quality rather than fitness for purpose. Indeed, we suspect that rebalancing the funding system – to increase the amount of funding driven by peer review awarded to researchers engaged with nursing and AHP – would mitigate the lack of professional self-confidence identified by the DH as a barrier to the development of research in these areas.¹⁴

40. We were also concerned to hear anecdotal evidence that some commissioning boards and peer review bodies are sometimes unsympathetic to health professions research because it often uses methods unfamiliar to them.

41. We have to be cautious about this sort of comment. The distinction between a paradigmatic preference and a judicious assessment of quality is never cut and dried: that is

¹² CPNR/CHEMS 'Promoting research in nursing and professions allied to medicine' (paragraph 3.15) shows that much of the published literature is the result of self-funded research projects. In effect, this research is having to compete with research in other disciplines for which time and facilities are funded by government.

¹³ For example, panels 10 and 11 each include three members from the user community who will be invited to comment upon the relevance of the research submitted.

¹⁴ 'Towards a strategy for nursing R&D' (DH 2000).

in the nature of qualitative judgements. In principle, however, those investigating problems which have historically fallen outside the scope of rigorous intellectual enquiry ought to be allowed scope to discover or develop the methodological approaches most appropriate to their field of study. Research is always a high-risk activity; research in new areas must be considered more high-risk than most and therefore requires a tolerance of failure – but not a tolerance of mediocrity. We confine ourselves to saying that:

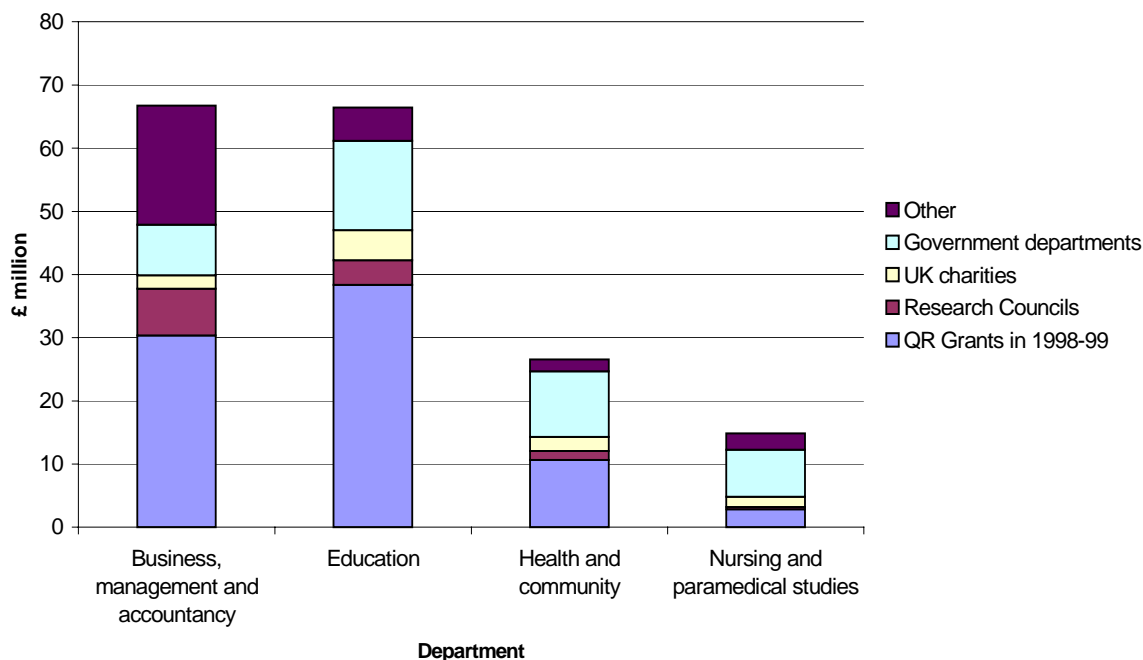
- the best way to ensure that decisions are taken on appropriate grounds is to ensure that, where possible, they are taken by genuine peers, with experience of the challenges of working in the same or similar fields (although not necessarily from the same discipline or profession)
- peer judgements must be made to the same rigorous standards as would be expected in other disciplines.

How do nursing and AHPs compare with other disciplines?

42. It has been argued, somewhat hypothetically, that because nurses account for 40 per cent of the NHS budget, a similar proportion of the R&D budget should be allocated to research relevant to nursing. We see no reason to suppose that investment in research relative to nursing (or other health professions) will produce benefits less marked than investment in medical research. However, we also recognise that research in these areas is at a relatively early stage of development and that, at present, the most appropriate comparators are professions lacking the tradition of academic research found in, for example, engineering.

43. CPNR/CHEMS considered the position of nursing and AHPs relative to comparable professions. A distinctive pattern emerges from this analysis, which is summarised in Figure 2.

Figure 2 Absolute funding levels (£ million)



Source: HESA data for 1998-99 for UK (see Annex E for details).

44. Of particular interest is the comparison with education. Education research also supports and reflects upon the work of a large public sector graduate profession. University departments of education are, like nursing departments, charged with training large numbers of professionals. Furthermore, like nursing, education lacks the research tradition of professions such as engineering.

45. What is notable when nursing is compared with education is the huge disparity in the amount of Research Council funding and HEFCE research funding allocated to institutions on the basis of RAE results. As noted in paragraph 14 above, HEIs are expected to use HEFCE QR funding to support infrastructure and, crucially, to fund curiosity-driven research. It may be that, in the short-term, some HEIs are able to bear the costs of supporting nursing research even where it does not attract QR grant into the institution. It is highly unlikely that they could do so indefinitely.

46. What can be said of nursing is pertinent to those AHPs subsumed within the HESA cost centre for nursing and paramedical studies. These include such prominent professions as physiotherapy and occupational therapy (see list in Annex E). Other professions are to some extent 'invisible' in the funding statistics, being subsumed into wider categories such as 'health and community studies'. However, mapping undertaken by CPNR/CHEMS indicates

that for some professions there is effectively no funding system at all,¹⁵ whereas others have been successful in establishing a research base.

47. In consequence, we prefer to be cautious when making generalisations about the AHPs. Some, such as nutrition and dietetics, have a critical mass of research-active professionals and have made substantial progress towards defining and addressing research agendas; others such as podiatry lack both sources of funding and a core of researchers.¹⁶

48. There is another reason for considering education as an appropriate comparator for nursing. In 1998, concerned about the state of pedagogic research, the HEFCE, in collaboration with the Economic and Social Research Council and the Teacher Training Agency, established the £12 million Teaching and Learning Research Programme (TLRP). It is too early to say what effect the programme has had on pedagogic research. However, early indications are encouraging, and funding partners have committed to a further phase – targeting research into teaching in higher education – confident that the success of the programme can be built upon by focusing on the sub-field.

¹⁵ CPNR/CHEMS, 'Promoting research in nursing and professions allied to medicine' Chapter 2.

¹⁶ Ibid, Appendix I. The difficulty in making generalisations about the AHPs is highlighted by the fact that, in dietetics, all four departments submitting to the 1996 RAE achieved ratings of 3b or above.

3 The case for health professions research

49. Our terms of reference invited us to consider ways of enhancing health professions research. However, we felt there was a prior task: to justify that research and its intellectual and practical importance. This proved a fruitful exercise in two ways: the force of the justification emboldened us to seek practical means of delivering improvement; and its nature dictated the focus of our recommendations.

Evidence-based practice and policy

50. NHS policy is to move towards evidence-based practice and policy. We have taken it as a given that health-related research¹⁷ has the key role in enabling this to happen.

Benefits for teaching

51. A major study undertaken for the HEFCE's fundamental review of research policy¹⁸ concluded that the direct and indirect benefits of research for teaching are real and varied, but noted that:

- benefits are not automatic but require active management
- they do not necessarily pertain at the level of the individual researcher (brilliant researchers may be poor teachers), but accrue through the shared intellectual culture of a department, university or network.

52. This is instructive if we consider the case of nursing and AHPs, fields in which large numbers of university teachers are charged, among other things, with providing their students with a level of research awareness. Much pre-registration training now takes place at degree level, and post-registration training must be assumed to be at this or a higher level. We therefore conclude that, while it may not be necessary for every teacher to be heavily involved in producing original research, it is essential that a research culture is sufficiently pervasive within the professions to enable all teaching to be informed by developments in research.

Establishing the knowledge base

53. In all areas of intellectual enquiry, distinctions have been made between 'applied' and 'non-applied' research; and almost without exception the distinction has proved unhelpful. It

¹⁷ For the purposes of this report, the term 'health-related research' refers to research undertaken by, or relevant to the practice of nurses (including midwives and health visitors) and members of the allied health professions. A list of the professions consulted as part of the Task Group 3 process is in Annex B.

¹⁸ JM Consulting (2000).

is true that research may be directly or indirectly applicable, but it is almost impossible to find researchers engaged in directly applicable research who will not acknowledge their debt to the knowledge or techniques developed in supposedly non-applied research (the 'underpinning work').

54. In the short-term it would be possible to undertake a very limited set of 'research' activities without the support of underpinning work. However, we consider that even such limited capability would be unsustainable in the following ways:

- intellectually: it would be impossible to draw together existing knowledge and approaches to produce a coherent or consistent approach to R&D; new approaches would struggle to evolve to meet changing conditions or new possibilities
- professionally: the prestige of research and the attractiveness of research careers would be undermined, exacerbating existing problems in training and recruiting able researchers
- reputationally: researchers from within the professions would risk losing the respect of researchers in other fields and becoming 'cut off' from cognate groups. This would make it difficult to draw upon the expertise and perspectives of other groups.

55. In paragraph 29 above, we stated that research has a key role to play in enabling evidence-based practice and policymaking. We consider that it will be unable to fulfil this role if support exists only for research of the most direct application (for example evaluations of specific treatments). There must also be support for research which cannot guarantee an output of immediate interest to a specific sponsor. Indeed, we consider that a healthy research culture demands that all types of research activity are allowed to flourish.

56. We would also like to make a distinction between the type of research and its quality. We do not consider that 'fundamental' research is necessarily of higher intellectual quality than 'applied' research. Rather, as professionals with wide knowledge of work in our fields, we recognise that quality is to be found in all types of research. We believe furthermore that the long-term health of the research system will be secured by rewarding research of the highest quality regardless of whether it is directly applicable and where it is undertaken.

The research dividend

57. We have noted with interest the attempts to specify and quantify the benefits of research for the economy and society. Salter (2000) suggests that the rate of return on public investment in research may be as high as 25 per cent.¹⁹ However, the science of measuring the economic benefits of research is not at an advanced stage of development.

¹⁹ Salter et al, 'The impact of publicly funded research on innovation in the UK' (SPRU 2000).

58. Drawing upon an analysis of the potential benefits of further investment in health-related research commissioned from Dr Steve Hannay of Brunel University, CPNR/CHEMS have identified five categories of payback from investment in health professions research. These can be seen as a set of objectives for the research base, and the adequacy of current capacity can be judged against its ability to optimise each:

- knowledge generation (of all kinds)
- future research and research use (to target research towards relevant local and national priorities, and enhance the capacity of the service to use as well as generate research within a 'learning organisation')
- enhanced executive decision-making (especially with regard to clinical governance)
- cost and effectiveness of different interventions (cost saving and improvements in health care quality and coverage)
- broader benefits (contribution to the 'social' capital of organisations through participation in research, benefits to the healthcare workforce, and economic gain from a more healthy workforce more generally).

Further discussion of the economic and other benefits delivered through these payback mechanisms can be found in the CPNR/CHEMS report.²⁰

²⁰ CPNR/CHEMS 'Promoting research in nursing and professions allied to medicine' Chapter 4 and Technical Annexe appendix 4.

4 Problems of supply and potential demand

59. There is at present a lack of research capacity in health-related research. This is amply borne out by the most complete set of data available, the results of the 1996 RAE in nursing and professions allied to medicine.

60. In nursing, only 11 departments received ratings of 3b or above (high enough to attract funding). Of these, two were rated 4 and one 5. No department received a rating of 5*; nursing was the only UoA where this was the case.

61. The total number of research-active staff in departments scoring 3b and above was 185.9 full-time equivalents (FTEs). That is approximately one researcher for every 1,600 nurses working in the NHS on any given day.²¹

62. In Chapter 2 we showed that research funding levels lag behind those for comparable professions, and concluded that the current funding system, by which we mean the overall funding breakdown for research in nursing and AHPs, is both too small and unbalanced. Here we discuss the effects of this upon the research base and its ability to meet the needs of its stakeholders.

Research careers

63. Both research papers and postgraduate training are largely self-funded, representing a substantial subsidy of the research base by academic and NHS staff. Even where research and training are funded, there is often no allowance for the time absorbed by study or research activity. This represents a further subsidy of the research base by staff in terms of both time and pay forfeited. To compound the situation, research posts are often less well paid than equivalent clinical posts; researchers lack a clear career path; and (owing to the prevalence of fixed-term contracts in HE) do not enjoy the same job security as their peers in practice.

64. Furthermore, there is a lack of senior research posts, which inevitably affects the ability of the research base to deliver complex or challenging research projects. It is important that staff who are supervising projects have adequate time to do so, and that future research leaders have time to develop their careers. The main priority is to release time from teaching commitments (for staff in teaching posts), or from clinical commitments (for those employed in clinical posts) to allow experienced researchers to supervise others and to develop their work.

65. In this context we note the introduction of the clinical scientist scheme, and hope that it would be possible to extend this kind of funding to health professions researchers. However, this is only one possible means of providing the necessary support.

²¹ '1996 Research Assessment Exercise: the outcome' (RAE 96 1/96). Figures based on the estimate of 300,000 nurses in the NHS contained in the NHS plan.

66. In Chapter 6 we consider the ways in which the HEFCE and the DH may wish to intervene to support the development of research careers in nursing and AHPs. The report of the R&D Workforce Capacity Development Group²² addresses in more detail the structural issues affecting the development of research careers. Our recommendations complement those in that report, and do not supersede them.

67. To summarise, we consider that the current funding system has created problems at every level:

- numbers of postgraduates are insufficient to replenish academic faculties
- postgraduate education is largely self-funded²³
- there is a lack of research-funded posts in the NHS and in universities, and also a lack of clinical academic posts²⁴ spanning research and practice. As a result research is not embedded alongside teaching and practice²⁵
- there is a lack of provision for sabbatical leave both for research students and for academics and practitioners seeking to undertake post-doctoral studies²⁶
- there is a lack of funding for research projects. Funds from charities and the research are relatively small, so what funding there is tends to support research of direct and immediate benefit to sponsors. Despite this, there is no research at all on the effectiveness of some major interventions²⁷
- there is a lack of funding for research infrastructure: HEFCE research grant makes up a smaller proportion of total research funding in these areas relative to comparators.²⁸

²² 'Developing human resources for health-related R&D: next steps' (DH 1998).

²³ CPNR/CHEMS 'Promoting research in nursing and professions allied to medicine'.

²⁴ 'Developing human resources for health-related R&D: next steps' (DH 1998).

²⁵ 3.9 per cent of academic nursing staff are defined by HESA as research staff. This is less than half the figure for education. Despite the sharp improvement over 1996, only 27 per cent of academic staff in nursing and professions allied to medicine were submitted as research-active compared with 47 per cent for education. The UoA for PAMs contains many professions with a far more developed research tradition than most of the AHPs, which would tend to inflate the proportion of staff submitted as research-active.

²⁶ 'Developing human resources for health-related R&D: next steps' (DH 1998).

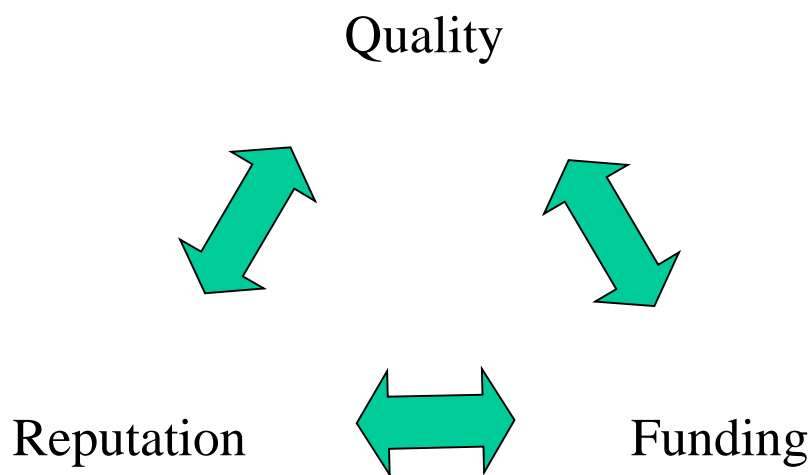
²⁷ Crofts and McMahon, cited in CPNR/CHEMS Chapter 5.

²⁸ CPNR/CHEMS 'Promoting research in nursing and professions allied to medicine'. Chapter 4.

Capacity building²⁹

68. Existing funding mechanisms quite properly support research on the basis of either fitness for purpose (commissioned or consultancy research) or existing excellence (QR or research council funding). This makes it hard to develop excellence in areas without a research tradition unless some seed-corn funding is provided to enable research groups to develop excellence and, equally important in terms of long-term viability, a reputation for excellence. Funding, excellence and reputation all tend to reinforce one another, creating a dynamic for ongoing improvement. It follows that the lack of any of these attributes could create a dynamic for relative decline.

Figure 3 The competitive advantage of established units



69. We note the argument made in the HEFCE Review of Research that funding for capacity building may be necessary to support:

- new and emerging subjects, where there might otherwise be some time lag in institutions taking them up
- subjects where PhD provision across the country is inadequate
- projects responding to local, regional and national needs.

70. A strong case can be made for nursing and AHPs under each of these headings.

²⁹ For A fuller discussion of capacity building is given in 'Developing human resources for health-related R&D: next steps' (DH 1998).

A consensus for action

71. There is an overwhelming case to be made for the importance of health professions research; this is set out in Chapter 3. Furthermore, for reasons outlined above and in Chapter 2, we believe that the research system is not delivering to its potential. In investigating these issues, we have identified a broad-based consensus for remedial action to drive these improvements. Apart from the HEFCE and the DH this consensus embraces:

- the Medical Research Council
- research charities³⁰
- interest in research from within the professions³¹
- interest in research from practitioners³²
- interest in research from HEIs.³³

72. We believe this consensus reflects the potential demand for nursing/AHPs research, and that the users and funders of research are united in placing priority upon the development of research capacity. On this basis we conclude that there is a problem with the volume of high quality output, and that this is characteristic of emerging disciplines. If this problem can be overcome, there is a clear demand for the outputs which would result. In the next chapter we address the potential of the research base to increase capacity in response to further investment.

³⁰ The CPNR/CHEMS 'Promoting research in nursing and professions allied to medicine' report states that some members of the Association of Medical Research Charities expressed a clear desire to commission research into nursing but did not know how to proceed. The Wellcome Trust's new corporate plan places a new emphasis upon patient-centred research, which we anticipate would translate into demand for high-quality research if the capacity was available.

³¹ Ibid, Chapter 2 discusses in detail the involvement of professional bodies in exercises to establish priority research needs.

³² Evidenced by numbers of part-time postgraduate students. Of 3,700 nursing postgraduates in 1998-99, all but 435 were part-time. This suggests that the demand for research training is coming from practitioners rather than new graduates. It is also likely that most of those courses are self-funded. By contrast, the Register of Therapy Researchers reports an increase in PhDs from 63 in 1997 to 114 in 1999. These data cover physiotherapy, occupational therapy and speech and language therapy.

³³ We have used participation in the RAE as a proxy here. See next chapter.

5 Potential for improvement

73. While there is arguably a shortage of high quality research output at present, there is good reason to believe that there is abundant potential for the volume of high quality research to be expanded if appropriate incentives are in place. We believe this to be the case for the following reasons:

- the consistent improvement in RAE scores in nursing and PAMs (UoAs 10 and 11)
- the rapid expansion in research-active staff in UoAs 10 and 11,³⁴ indicating a rapid expansion of research culture across university departments
- the rapid expansion of research income in those disciplines (as established by CPNR/CHEMS) indicating an ability to satisfy the needs of funders³⁵
- postgraduate student numbers in nursing are rising sharply³⁶
- CPNR/CHEMS have found high levels of collaboration with researchers in other disciplines, suggesting a sharing of ideas and expertise with researchers from more established disciplines.

74. All the above indicators (RAE ratings, numbers of research-active staff and research income) are improving rapidly from a very low base, with the benefit of more moral than financial encouragement.³⁷ RAE submissions are particularly instructive: we have already noted that, for most of the departments involved, HEFCE funding for research represents a small proportion of research income (and a very small proportion of total income). Many departments' RAE ratings will not attract any funding at all. The willingness of departments not only to participate but to submit large numbers of staff (rather than just their 'stars') to the RAE suggests an eagerness to develop and expand high quality research and to make long-term plans to do so.

75. There is, therefore, every reason to be sanguine about the future so long as funding systems provide encouragement to university departments seeking to carry this 'expansion of quality' beyond its formative stages. The cultural conditions for this expansion appear to

³⁴ In both nursing and PAMs, numbers of research-active staff increased by 50 per cent or more in the 2001, making them comfortably the fastest expanding areas of research in the UK. Across all UoAs there was a fall of 1 per cent.

³⁵ CPNR/CHEMS 'Promoting research in nursing and professions allied to medicine' paragraph 3.5.

³⁶ Ibid, Chapter 3. The overwhelming majority of postgraduate students are part-time and self-funded. This testifies to the level of interest in research within the professions but also demonstrates that the demand for research training is not reflected in funding and (perhaps) career opportunities.

³⁷ Ibid, Chapter 3.

be in place, but the expansion itself has yet to produce substantial capacity for high quality research. We applaud researchers and HEIs for delivering improvement in a difficult funding environment and are confident that, given the opportunity, they will continue to do so. If, however, the funding system encourages departments to become 'teaching factories' or parochial research units engaging in ad hoc research projects then that is the course they will ultimately take.

6 Establishing a new fund, its duration and governance

76. The HEFCE and the DH have both recognised the case for targeted action to build research capacity in areas where existing funding systems have failed to produce the research capacity to meet national needs.³⁸ We believe that there is a compelling case for further targeted investment in health professions research: we are confident that there is not only a need but a large unmet demand for high quality health professions research. We are also confident that the research base can deliver expansion and improvement in response to investment. The following chapters set out our recommendations: which are summarised in Annex A.

77. We have concluded that the HEFCE and the DH should establish a fund to enhance the volume of high quality health-related research. We see this in the context of capacity building rather than simply commissioning specific projects. Such a fund should be designed to promote a long-term and self-sustaining improvement in the capacity to undertake high quality research. This might be achieved through earmarked funding for PhDs or post-doctoral fellowships, for example, or by funding research projects which encompass a strong capacity-building dimension. It should not, primarily, be a vehicle for purchasing research relevant to the immediate needs of funders unless and until it can be established that there is adequate funding for infrastructure to make such increased output viable.

78. By calling the proposed mechanism a 'fund' we mean to imply that the HEFCE and the DH will:

- agree to allocate additional sums specifically for the purpose of building capacity in health professions research
 - ensure that those seeking support from the fund will have a 'one-stop shop', and will not have to master the procedures of a multitude of disparate schemes
- establish a governing board to co-ordinate funding priorities.

Other funders

79. In the light of the commitment made in the statement of strategic alliance to work with other funders, the evident need for co-operation between funders, and the positive signals received from other bodies, we recommend that the HEFCE and the DH should enter into discussions with other funders at an early stage to establish mechanisms for co-ordinating investment in health professions research. Although we recognise that it is not possible for

³⁸ See HEFCE 00/17 'Review of research: report on consultation'. The Department of Health has repeatedly acknowledged this, most recently in 'Research and development for a first class service' (DH 2001). In addition, the relevance of the capability argument to health professions research has been acknowledged in 'Towards a strategy for nursing research and development', and recognised by both organisations in the establishment of Task Group 3.

all funders to allocate money to a central pot, we see great advantages in having a properly supported co-ordinating body with a clear brief to ensure that initiatives complement each other.

80. The DH may wish to consider whether there are funding priorities outside the capacity-building agenda which it wishes to include in the wider co-ordinating process.

Duration of funding

81. In considering how long funding would be required, we have taken into account the importance of the RAE in the planning cycle of institutions. HEIs would need to be able to develop capability with an eye on the next RAE, in the knowledge that development funding will continue to be available well into the following RAE cycle. Capacity building in such an inherently high-risk activity as cutting-edge research requires extended funding. We therefore recommend a seven-year minimum period for additional funding to be channelled through the new fund. We recognise that no funding organisation will be able to firmly commit funds so far into the future, but the task of setting objectives for the new fund will be impossible unless a planning assumption is made regarding the duration of any funding.

Governing board

82. We recommend that a governing board is established, consisting of nominees of the funders, to oversee the set-up and strategic direction of the fund. Its role would be to review the processes, programmes and funding priorities. Where the board decides that funds should be distributed on an allocation basis, it would be responsible for determining and reviewing the basis of the allocation. Should the board choose to allocate funds on a competitive basis, it would be responsible for appointing reviewers and administrators to help run the competitions. This board would be responsible for monitoring the need for research and the development of capacity, and adjusting funding priorities accordingly.

83. Below we discuss the areas where we believe investment is needed. However, these are not necessarily the fund's exclusive responsibility. We suggest that the governing board should keep a watching brief on the research base, and should allocate its resources in whatever way will best meet its objectives.

84. At the midpoint of the life of the new fund, the governing board or the funders should report upon the state of the research landscape. This report should be sufficiently detailed to enable HEIs to focus their planning on areas of research where they are likely to enjoy a comparative advantage should they choose to do so. It should also provide the fund's stakeholders with a reliable account of the researchers and research groups working in key sub-fields.

7 Career development and research opportunities

85. We envisage the governing board of the new fund having the freedom to review funding priorities and to allocate resources in whatever way it feels is most likely to satisfy its objectives. For this reason we are reluctant to recommend that it should have sole responsibility for supporting whole categories of activity, as this will limit its freedom of manoeuvre.

86. Nevertheless, we believe there is a need to provide avenues for researchers to access funding in several identifiable areas. We have therefore recommended that the fund should be able to support particular activities if the governing board considers them to be of sufficient priority.

87. In the field of career development we have made complementary recommendations concerning the role of Workforce Development Confederations. We argue that they should fund, as part of their support for the developing of an appropriately qualified teaching workforce:

- PhD opportunities for staff employed by HEIs whose posts are funded for teaching through Multi-Professional Education and Training (MPET) funds
- some time for staff employed in HEIs, whose posts are funded by MPET, to undertake research.

88. Our analysis suggests that the new fund is likely to support the following activities, unless it is satisfied through the co-ordinating mechanisms that they are adequately supported:

- PhD opportunities for newly qualified staff and other non-MPET funded candidates
- full-time post-doctoral research posts
- time for research for academic staff in clinical posts
- provision for experienced research staff (research leaders) to be 'bought out' of clinical and/or teaching duties to supervise, lead and otherwise pursue research.

89. We discuss our thinking in more detail below.

Research training

90. There is a clear need to understand more about the throughput of trained researchers. We know that the overwhelming majority are part-time and often self-funded. We do not know what implications this has for the supply of trained academic staff. For example, if a majority of postgraduate students return to practice, a greater throughput of students may be needed to replenish the academic profession.

91. We also know little about the extent to which researchers with postgraduate qualifications within the service are able to use their research skills, either by conducting research themselves or by contributing to the development of colleagues. We suggest that both these questions should be the subject of further investigation.

92. In order to foster an evidence-based approach to health care, the education of students in nursing and AHPs must take place in an environment in which research is understood and respected by all teaching staff and in which it is pursued by a significant number. Training in and experience of research is therefore a central part of the staff development needs of the teachers on these programmes

93. We therefore maintain that it is desirable for university teachers to hold research qualifications. We would not endorse an unthinking demand for credentials, which would drive competent but 'under-qualified' teachers out of higher education or otherwise penalise them. However, we suggest that it is important that new would-be entrants to the academic profession are in a position to acquire research degrees, and that existing staff are given similar opportunities.

94. Consequently, we believe that it is essential that Workforce Development Confederations accept the training and continuing professional development of teachers and mentors, including training in research skills, as a core responsibility. We suggest that, in practice, this means that they accept responsibility for ensuring that staff acting as research leaders within the service are able to attain postgraduate qualifications. We also urge NHS units to work closely with HEIs to develop research training partnerships using the framework for collaboration developed by the HEFCE/DH Task Group 2.³⁹

95. It should be the long-term aim of Workforce Development Confederations to ensure that all teachers in HE possess research degrees, or have access to the support necessary to acquire them. This support should cover the full costs of providing staff with study leave as well as the costs of tuition.

Research careers

96. It is essential that there is a career structure for researchers. Where researchers are employed as teachers this should be addressed by the Workforce Development Confederations. It should be within the remit of the proposed fund to support the costs to HEIs of supporting clinical academics and practitioners through research degrees, where their posts are funded for research.

³⁹ See the report of Task Group 2, 'Developing a joint university/NHS planning culture' (HEFCE 99/62). Task Group 3 also welcomes the establishment by the UK Council for Graduate Education of a working group to investigate research training in nursing and AHPs. We hope that this will form part of a co-ordinated response to the issue from the NHS and HEIs..

97. It should be within the remit of the proposed funding mechanism to extend this provision to academic staff in HEIs whose posts are not funded for teaching.

98. We also propose that, as part of its role in capacity building, the new fund should address the need for a career structure for researchers.

99. We interpret this as requiring three things:

- support for the creation of post-doctoral research posts
- support for sabbatical leave to enable teachers in HEIs and practitioners to engage in research
- where appropriate, the creation of senior research posts, including professorships where the development of research capability at a national level is inhibited by a lack of research leaders in particular areas.

100. We do not think it would be healthy for research to become concentrated in universities if this resulted in it being divorced from practice. We retain an open mind as to whether the creation of clinical academic posts on the medical model is the most appropriate way forward for nursing and AHPs, given the critical mass necessary to embed clinical academic teaching throughout the system. We would therefore encourage HEIs and NHS units to develop innovative approaches to the creation of roles straddling academia and practice. We also advise the funding bodies to ensure that the proposed fund would support such innovation.

101. Research careers in nursing and AHPs are in many ways uncompetitive when benchmarked against careers in practice. Pay is part of the problem but there is also less job security. We refer these issues for the attention of decision-makers in the health and higher education sectors.

102. We welcome the high profile that research careers issues now have within higher education. We urge all concerned bodies to consider how these issues impact upon practice-based disciplines, and to assess the needs of such disciplines in moving the agenda forward.

Funding capital

103. This emphasis upon research careers does not imply that health professions research is necessarily labour intensive (as opposed to capital intensive). Capital items make up part of the infrastructure necessary to support research and as such should also be fundable under the proposed initiative.

8 Interdisciplinarity and collaboration

104. Our recommendations encompass all research relevant to nursing and AHPs. We are not concerned, in general, about whether research is produced by members of the professions to whose practice it is directly or indirectly relevant. We are impressed by the degree of collaboration between nurses and AHPs and other researchers, and regard the evolution of multidisciplinary research agendas as wholly positive.

105. However, because we recognise the importance of maintaining healthy links between research practice and teaching, we would be concerned if entire sub-fields became dominated by researchers from outside the professions. We therefore recommend that a governing board should consider proposals for the development of interdisciplinary research capacity on the same basis as the development of research capacity within the professional disciplines, but that it should not consider funding proposals which exclude nurses and AHPs altogether.

106. In Annex C we summarise our suggestions for the structure and mission of the fund. We accept that the approach ultimately adopted will depend upon the funding bodies involved and their strategic interests. We therefore recommend that the funding bodies consider our proposals as a starting point for discussion, and that the final outcome of the discussions should be clear performance targets enabling the success of the fund in building capacity to be objectively measured.

Supporting collaboration

107. We have been asked to consider how we would like to see the research landscape in nursing and AHPs evolve, and specifically whether it is better for research to be concentrated in a few centres of excellence or widely dispersed around the system.

108. It is essential that research, client-focused R&D activity, teaching and practice continue to inform one another. We do not see how this is best achieved by confining research within a small number of research units. However, we gave considerable thought to the merits of a hub-and-spoke model in which centres of excellence enter into partnership with other institutions with a view to ensuring that their expertise is available to others.

109. Some aspects of this model are undoubtedly positive. We recognise the importance of enabling institutions to specialise within the context of genuine and equal collaborations. We also acknowledge that in nursing and AHPs, as in other disciplines, it is important that leading units are recognised and encouraged to maintain and develop world-class capability. We would fully support funders in their efforts to ensure that funding systems do just this. Our concerns about any planned concentration of research activity stem from our belief that:

- worthwhile research activity is rarely to be found only in the most prominent centres
- there is a benefit in the diffusion of research culture

- excellence and healthy competition are best encouraged by making funding responsive to quality rather than by planners attempting to ‘pick winners’.

110. We also appreciate that development depends upon the sharing of knowledge and expertise between research groups, professional groups and disciplinary groups.

111. In health-related research, there are many areas – and even whole disciplines and professions – in which there are no centres of excellence or in which the most promising developments are taking place in departments without historically high levels of funding. We would be concerned about formally identifying research centres and threatening diversity, when the system is at such an early stage of development.

112. We also believe that, while it is legitimate to incentivise collaboration, it would be counter-productive to force HEIs into collaborations they do not seek.

113. However, we do propose that a portion of the proposed fund should be earmarked to support leading institutions in designated fields within health-related research in developing mutually beneficial research networks that draw in researchers attached to other institutions.
