

OSCHR UK-Wide Survey of Health Research Fellowships 2009

Survey undertaken by the MRC on behalf of the OSCHR partners

- Chief Scientist Office, Scottish Government Health Directorates
- Department of Health, Social Services and Public Safety, Northern Ireland
- Medical Research Council
- National Institute for Health Research
- Wales Office of Research and Development for Health and Social Care

OSCHR UK-Wide Survey of Health Research Fellowships 2009¹

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¹ Original title was *OSCHR Landscape analysis: Fellowship survey 2009*

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Introduction

Investment in people (human capital) is a key priority for the MRC and the UK Health Departments working together as partners in the Office for Strategic Coordination of Health Research (OSCHR). We share a vision of a research workforce with the capabilities and capacity to lead, participate in and use research of the highest quality and relevance, fit to meet the challenges of 21st century health research.

Our support for highly-talented individuals to train and develop their research capabilities in outstanding research and training environments is an essential element in the delivery of high quality translational, clinical and applied health research, and its rapid translation into health, social and economic benefits.

To help coordinate our activities and priorities, we put together a working group of the five OSCHR partners in 2009, which - for the first time - created a UK-wide survey of personal health research fellowships funded by 12 organisations. We recognise that the picture the survey provides is somewhat dominated by the data for medical specialties and for England. Nevertheless, it represents a strong and valuable evidence base.

All 12 funders believe the survey findings should be available to a wider audience. They should of course be interpreted in the context of other information, for instance that published by the funding councils, the Medical Schools Council and the medical royal colleges.

What fellows and others tell us about the challenges of clinical research training resonates with the survey data. There are still structural and cultural barriers to work on. The good news is that academic clinical training paths have been significantly strengthened, with new funding to provide many clinicians with opportunities to experience and develop research skills during specialty training. We and funders such as the Wellcome Trust have significantly increased funding for 'full-time research' clinical training fellowships.

We will continue to invest in medical and non-medical research training, developing our schemes in response to the needs of trainees. We are commissioning a study of medical research trainees, to help evaluate of the impact of our investment. And we will continue to develop partnerships with the higher and medical education sectors and with industry to deliver the UK's strategic research skills needs.

We believe that the postgraduate deans have a key role in encouraging and creating opportunities for clinicians to develop as researchers within their already demanding formal clinical training paths. The professional bodies also have a crucial role to play and many could provide even stronger leadership in promoting and recognising the value of research.

Finally, we want to thank the extended team that provided the data from across 12 funding organisations, and for the painstaking work to put together the data in a coherent and useful form. We are also grateful to the Medical Schools Council for sight of pre-publication data on academic staffing levels.

Sir Leszek Borysiewicz, Chief Executive, Medical Research Council

Professor Dame Sally Davies, Director General of Research and Development for the Department of Health and NHS

Dr Tony Jewell, Chief Medical Officer, Wales

Dr Michael McBride, Chief Medical Officer, Northern Ireland

Professor Sir John Savill, Chief Scientist, Chief Scientist Office, Scottish Government Health Directorates

1. Background

Human capital is an important element of OSCHR's strategic plan and a major priority for OSCHR partners during 2009. The MRC has led on a UK-wide fellowships survey to produce a high-level resource that can support strategic planning and assist the OSCHR partners to identify issues for further work. The survey provides an overview of twelve funder's² investments to grow and sustain the capabilities and capacity for clinical, health services and public health research.

By identifying the training and careers supported at different career stages, we aim to create an overview of the volume of health research capacity being supported as at March 2009, and also the flux between junior, intermediate and senior career levels over the last three financial years.

Whilst the mapping is inevitably incomplete, it provides an evidence base that complements other sources, such as the outcome reports of the RAE 2008 and the 2009 survey of *Clinical Academic Staffing Levels in UK Medical Schools*³.

The survey has focused on **fellowship** awards for two reasons:

- fellowships represent specific human capital priorities and investment by funders
- extracting skills and careers data from grants and intramural employee databases was not possible in the time available.

This paper presents the analysis of the survey data.

² Funders participating: NIHR (DH), Chief Scientist Office (Scotland), Welsh Office of R&D, Health & Social Care R&D Northern Ireland, MRC, ESRC, Wellcome Trust, BHF, CRUK, ARC, Academy of Medical Sciences, HEFCE.

³ Published by the Medical Schools Council (MSC).

2. Key findings of the OSCHR Fellowship Survey

2.1 General

- The survey identified 1660 fellowships across all career stages from junior to senior. The balance of investment in numbers is markedly towards junior awards.
- Over 80% of the fellows in the survey are medically-qualified.
- 11% of the fellows included in the survey are not health professionals. They are included because they have a health services research (HSR) or public health research fellowship.
- The remaining 9% of the fellows in the survey are dentists, nurses/midwives, allied health professionals or from other health professions such as pharmacy.

2.2 Medically-qualified fellows

Vulnerable clinical specialties

- The clinical academic capacity identified by the OSCHR Fellowship survey, and supported by the MSC survey, suggests the following disciplines have a particularly low research capacity:
 - anaesthetics
 - obstetrics & gynaecology
 - radiology
 - ophthalmology
 - pathology
 - occupational medicine
 - medical education
- Other specialties with relatively low numbers of senior-level fellows are:
 - surgery
 - rheumatology
 - gastroenterology
 - general practice
 - haematology
- A low number of fellowships in a discipline (indicating low research capacity) of itself does not necessarily indicate a problem; other information needs to be added.
- Overall, the ACFs and CLs⁴ are more widely spread in England than are junior and intermediate clinical research fellowships⁵.
- **Craft specialties:** In its first two years, NIHR has ensured that research-vulnerable specialties such as surgery have had their fair share of pre-doctoral ACFs (see figure 6a) and CLs (figure 6b). One challenge is perhaps the low level of research leadership in these specialties, as indicated by the fellowship survey (e.g. 'surgery', in figure 3).
- **Laboratory-based disciplines:** Pathology, along with clinical pharmacology, has been identified by the ABPI as a skills area critical to the needs of the industry. Pathology has also seen a decline of academic staffing: down 58% since 2000⁶. The fellowships survey complements this picture of low research activity (figures 3 & 4).

Career paths

- A number of reports and surveys in the early years of the decade documented sharp declines in the clinical academic workforce and identified disincentives for medical doctors and others in clinical training to take up and pursue a research career.
- However, the OSCHR Board's view is that this fellowship survey indicates that the **integrated clinical academic career path** of ACFs and CLs is beginning to have an

⁴ ACF: Academic Clinical Fellow. IPF: In-Practice Fellow (equivalent to an ACF for General Practitioners who have completed their clinical training). CL: Clinical Lecturer. CSLA: Clinical Senior Lectureship awards.

⁵ This reflects the NIHR position, taken after consultation, of balancing the spread of training opportunities across England to reflect wider engagement in clinical and applied health research.

⁶ Medical Schools Council *Survey of Staffing Levels of Medical Clinical Academics in the UK, 2009*

impact. This pathway is for medically qualified fellows in England (see figure 2). The fellowship data are less informative about non-medical professions.

- The positive trends are underlined by the Medical Schools Council report, which “indicate[s] an increase in the total [clinical academic] staffing levels for the second consecutive year.”⁷
- However, the MSC report also identifies several concerns. They include: vulnerable specialties (see above); the ageing clinical academic population; the loss through retirement of research leadership; and a difficulty in recruiting to senior posts in pathology, physicians/medicine (endocrinology and diabetes), radiology, obstetrics & gynaecology and oncology.

Clinician Scientist Fellows

- The fellowship survey indicates a potential future shortage of intermediate fellowships. The demand for CSF awards can be expected to increase as the current investment in junior fellows works through to CSF level. The supply of early, intermediate and senior fellowships will need careful balancing over the next 5+ years.

2.3 Dental fellows

- The Dental Schools Council data⁸ (Appendix 1) suggests there is good academic capacity within the university system (compared to a few years ago).
- However, only 23 dental fellowships were declared in the OSCHR Fellowship survey. Of these, all were funded by NIHR apart from two doctoral fellowships (Wellcome Trust and MRC funded) and one CSLA⁴ funded by HEFCE.

2.4 Nursing/midwifery, allied health professions and other health professions⁹

- Of the 29 fellowships identified in nursing/midwifery, the great majority were funded by the Health Departments. Three were funded by CRUK and one by MRC.
- The small number of senior-level fellowships in nursing and midwifery, and in the allied health professions, is consistent with other evidence of limited current research capacity in these professions, although the position is expected to change in the next few years¹⁰.

2.5 The research in which fellows are engaged

- The distribution of the research across the UKCRC ‘research activities’ is very similar to that shown in the UKCRC report *UK Health Research Analysis* published in 2006. The focus of the fellowships is on underpinning research and aetiology, and the research activities least well represented are prevention and management. New awards coming on stream for more applied research training will impact on this, although the pace of change will be gradual. OSCHR partners will want to consider whether this pace is rapid enough.
- The spread of clinical and health fellowships (2009) across UKCRC ‘health categories’ is also broadly consistent with the overall balance of research in 2006. Categories with relatively fewer fellowships (in relation to overall funding) are cancer, neurology, and infection; and those with a noticeably higher percentage of support are the cardiovascular, gastro-intestinal, and respiratory categories. This could perhaps reflect that (a) cancer, neurosciences and virology research attract relatively more grant support, or (b) the research interests of clinicians tend towards the physiological systems.

⁷ A comparison of MSC 2009 and the OSCHR fellowship data indicates complementary patterns of investment: MSC posts are predominantly professorial and reader/senior lecturer; the NIHR, MRC, WT and others fund predominantly junior posts (Appendix 2, figure 3).

⁸ The balance between teaching and research for professorial, senior lecturer and lecturer post-holders is unknown. Clinical teacher posts were excluded from the analysis.

⁹ Includes e.g. medical physicists, pharmacists

¹⁰ As research trainees work their way through the new clinical academic pathway for nurses, midwives and allied health professionals.

- Fellowships in HSR and public health research were identified in the survey. There were very few fellowships identified at the senior level in health psychology and health economics, and none in informatics, statistics, and social science. However, it is important to note that the survey excludes institutional support¹¹, much of which addresses specific identified capacity needs.

2.6 Future of the OSCHR Fellowship survey

- The OSCHR Board considered the report at their meeting in May 2009, and agreed that the data should be published to make the data publicly available.
- The results of the survey could be used by funders and other stakeholders wishing to:
 - a) align strategies;
 - b) target specific skills/disciplines for strategic investment; and
 - c) balance capacity, for instance across the career path (junior, intermediate and senior levels).
- The survey could be expanded to include fellowships funded by funders not taking part in this survey, e.g. other charities. However, we think this is unlikely to add significant value to the bigger picture.
- If desired, the 2009 OSCHR survey data could be used as baseline data, and the survey repeated in several years time to investigate the impact of recent initiatives taken to address capacity issues. (Note a separate study to track the 2010 cohort of ACFs is already being planned.)

¹¹ Such as the European Bioinformatics Institute, and the MRC Biostatistics Unit

3. Methods

3.1 OSCHR Fellowship Survey

Volume

To produce the volume map, we have taken a 'snapshot' of fellowship funding 'live' in March 2009 across England, Wales, Scotland and Northern Ireland¹² to identify health professionals¹³ supported by different funders, together with information on their area of expertise, location, and career stage. Also included are non-health professionals with fellowships in health services or public health research.

Flux

To identify the flux of people across different career stages, we collected funders' data on the numbers of fellowship awards made over the last two years, this year and planned for next year. This gives a broad-brush overview of recent changes in health research capacity and shows how the supply across different career stages is expected to change. Some of these changes may address issues evident in the survey, but which have yet to work through in terms of changes in volume.

Inclusion & exclusion

The data collected in the OSCHR Fellowship Survey focus on personal support and therefore exclude intra-mural support and grants. The rationale was (a) fellowships represent a strategic response to human capital needs (although not capturing the entire picture); and (b) pragmatically, to extract occupation data in a standard manner from grant and intramural support across funders was beyond our timescale and resources.

The data include personal awards such as clinical research training fellowships, clinician scientist fellowships and senior fellowships and equivalent awards in public health research, biostatistics, health economics, methodology development and other capacity building fellowships. The fellowship data otherwise exclude non-clinical fellowships (e.g. Career Development Awards and Senior Non-Clinical Scientist awards). Part-time fellowships were included, but not distinguished from full-time.

The OSCHR survey includes ACF, IPF, CL, and CSLA¹⁴ fellowships in England. The ACF and CL fellowships are 'enabling' fellowships that aim to increase the fellow's academic experience and help improve the fellow's competitiveness when applying for more senior fellowships¹⁵. Scotland has similar schemes¹⁶, and Wales and Northern Ireland have recently introduced similar schemes. These awards include a substantial clinical practice component, and constitute the integrated academic training pathway that enables doctors and dentists to balance clinical and academic training commitments. CSLA fellowships have a tenured university appointment guaranteed after the fellowship terminates.

Data coding

The funders participating in the study had, in most cases, to code their fellowship data especially for the OSCHR survey to include medical specialty and UKCRC codes, often referring back to the original application and applicant CVs.

¹² Funders participating: NIHR (DH), Chief Scientist Office (Scotland), Welsh Office of R&D, Health & Social Care R&D Northern Ireland, MRC, ESRC, Wellcome Trust, BHF, CRUK, ARC, Academy of Medical Sciences, HEFCE.

¹³ Medically qualified doctors; dentists; nurses/midwives; allied health professions; and other health professions e.g. pharmacist, clinical biochemist, medical physicist.

¹⁴ ACF: Academic Clinical Fellow. IPF: In-Practice Fellow (equivalent to an ACF for General Practitioners who have completed their clinical training). CL: Clinical Lecturer. CSLA: Clinical Senior Lectureship awards.

¹⁵ Note: An ACF or CL is not a prerequisite for a research training fellowship.

¹⁶ Information has been received from NES (NHS Education for Scotland) giving brief details of similar support schemes funded in Scotland, but the data is not currently in a format that allows it to be combined with the OSCHR survey data.

Limitations of the data

The UKCRC codes were identified only at the most basic level – a single health category and the primary research activity for each fellowship. The specialty list was derived from the one used by the Medical Schools Council, with further specialties added to give a fuller, but manageable, list.

3.2 Medical Schools' Council data

The Medical Schools Council (MSC) and the Dental Schools Council (DSC) kindly allowed us early access to their 2009 survey data, which they modified to improve compatibility with the OSCHR survey analysis. The MSC and DSC data are based on a census of clinical academics with a substantive university contract and an honorary NHS contract, in Medical and Dental Schools as at July 2008. Some Medical and Dental Schools also return data on the number of researchers in post, but it should be noted that the majority of researchers do not hold an honorary NHS contract and are thus excluded from the scope of data collection. However, the reported data are included for comparison in Appendices 1 and 2.

4. OSCHR fellowship survey: Main results of the analysis to date

4.1 Overview of patterns of funding

The OSCHR Fellowship survey returned data on 1660 fellowships, summarised in Table 1.

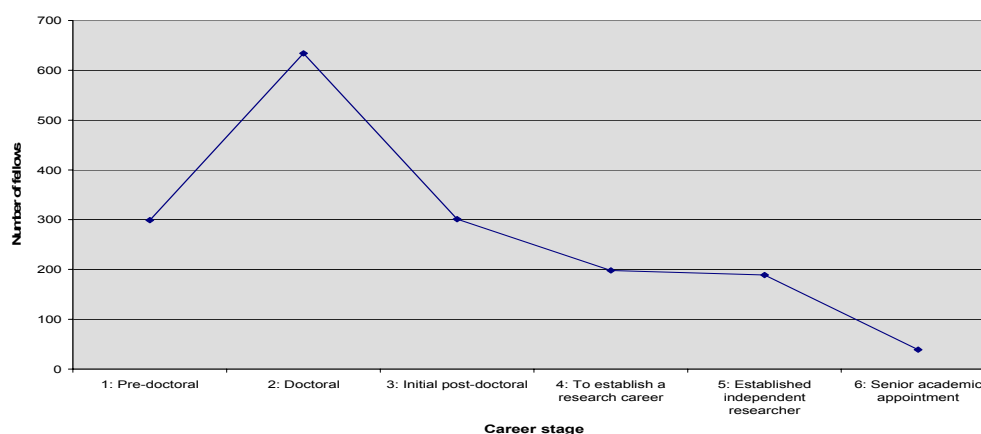
Table 1:

Health Profession of Fellow	Career stage						Total
	1: Pre-doctoral (ACF)	2: Doctoral	3: Initial post-doctoral (mostly CL)	4: To establish a research career	5: Established independent researcher	6: Senior academic appt	
Medically qualified	291 ¹⁷	444	225 ¹⁸	173	178 ¹⁹	32	1343
Dentist	8	3	5	6	1		23
Nurse/Midwife		22	12	1	2		37
Allied health professional		19	4	1			24
Other healthcare professional		22	12	6	5	2	47
Not a health professional		124	43	11	3	5	186
Total	299	634	301	198	189	39	1660

4.2 Balance of support across different levels of seniority

The OSCHR Fellowship survey shows investment across all career stages (Figure 1), with the majority of awards focused at the doctoral level. The majority of awards at pre-doctoral, initial post-doctoral, and established independent researcher levels are accounted for by the ACFs & IPFs, CLs, and CSLAs respectively.

Figure 1: Fellowships survey - support across career stages, all professions



This accords with the Medical Schools Council survey²⁰, which shows that the more senior posts are predominantly funded by the NHS and Funding Councils, and the more junior level posts (doctoral researchers) are predominantly funded by other funders²¹.

¹⁷ 10 are IPF. Note ACFs are currently available only to doctors and dentists. Most individuals gain a doctoral fellowship without having held a pre-doctoral one.

¹⁸ All except 18 are CL fellows, available to doctors and dentists only. Note: Most individuals go from stage 2 (doctoral fellowship) to a stage 4 fellowship without having held an initial post-doctoral fellowship.

¹⁹ 112 are CSLA awards. 66 are senior clinical fellowships supported by research funders.

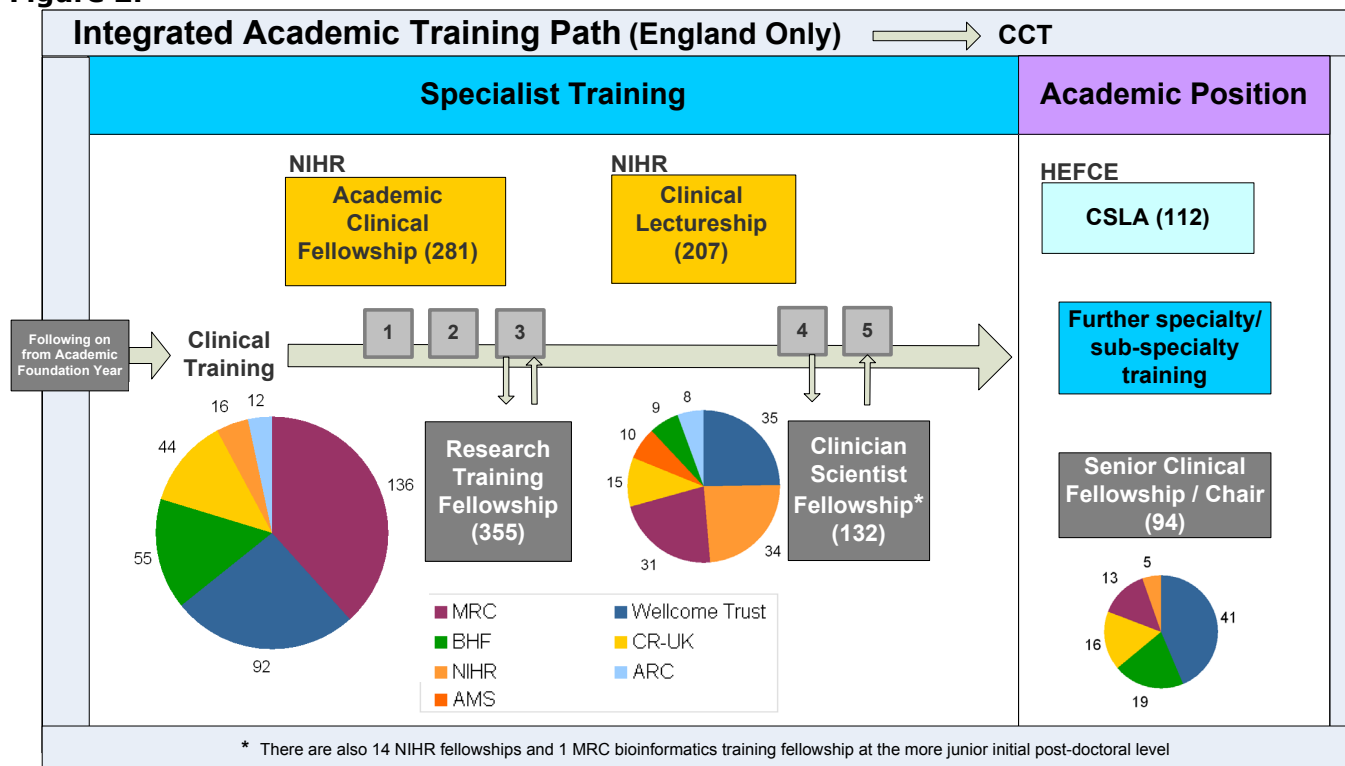
²⁰ The MSC data focuses on professorial, reader or senior lecturer, and lecturer levels; with less complete data on researcher and trainee grades (see Appendix 2).

4.3 Medically qualified fellows

4.3.1 Distribution across the integrated clinical academic pathway in England

Figure 2 illustrates how the fellowships map on to the integrated clinical academic career pathway for medically-qualified doctors (for England only)²². The ACF, CL and CSLA fellowships are shown at the top of the diagram. The fellowships awarded by research funders are shown as pie charts beside the relevant career stage fellowship. So, for example, of the 355 research training (doctoral) fellowships to medical doctors in England in the OSCHR survey, 136 were funded by the MRC, 92 by the Wellcome Trust, and so on²³.

Figure 2:



4.3.2 Distribution across medical specialties in the UK

The distribution of all medical fellowships identified in the OSCHR survey, excluding dentists, is shown by specialty in Figure 3²⁴. The specialty with the highest number of live fellowships is surgery.

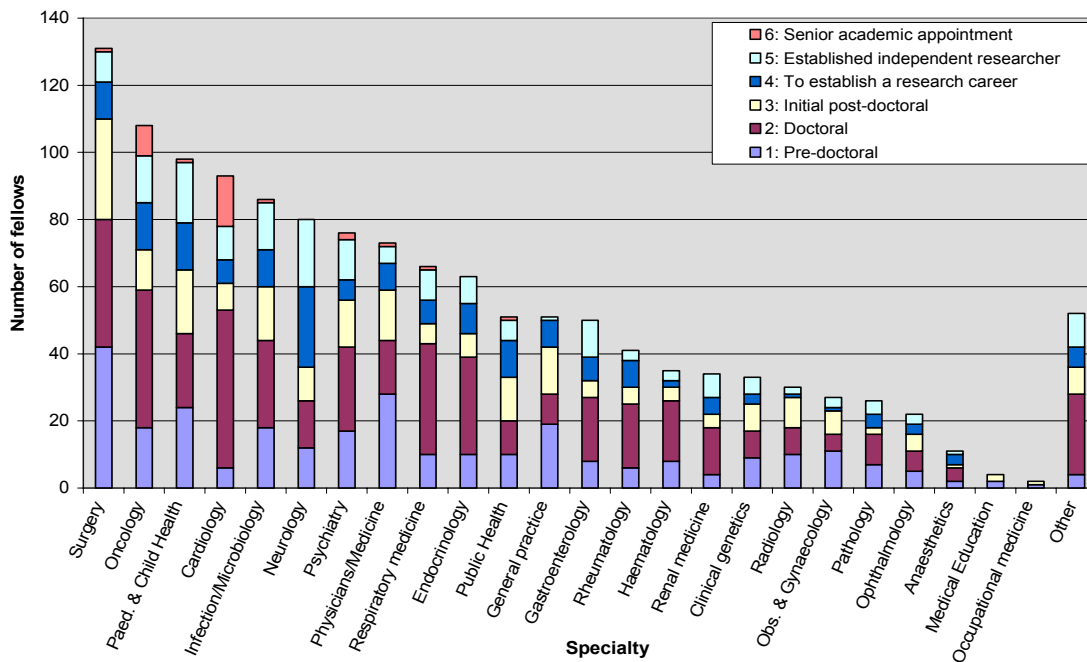
²¹ Research Councils, charities, industry etc. Note: ACFs and CLs are not identifiable within the MSC data, nor are NIHR-funded later stage fellows.

²² The diagram shows fellowships to medically-qualified doctors in England only, and excludes large numbers of fellows identified in other professions, and excludes fellowships in Wales, Northern Ireland, and Scotland.

²³ The NIHR funded 70 doctoral fellowships in total across all professions and academic disciplines. The number of medically qualified individuals applying for and awarded NIHR Doctoral Fellowships is expected to rise substantially as increasing numbers of Academic Clinical Fellows, having completed this stage of their training, seek funding to undertake a PhD.

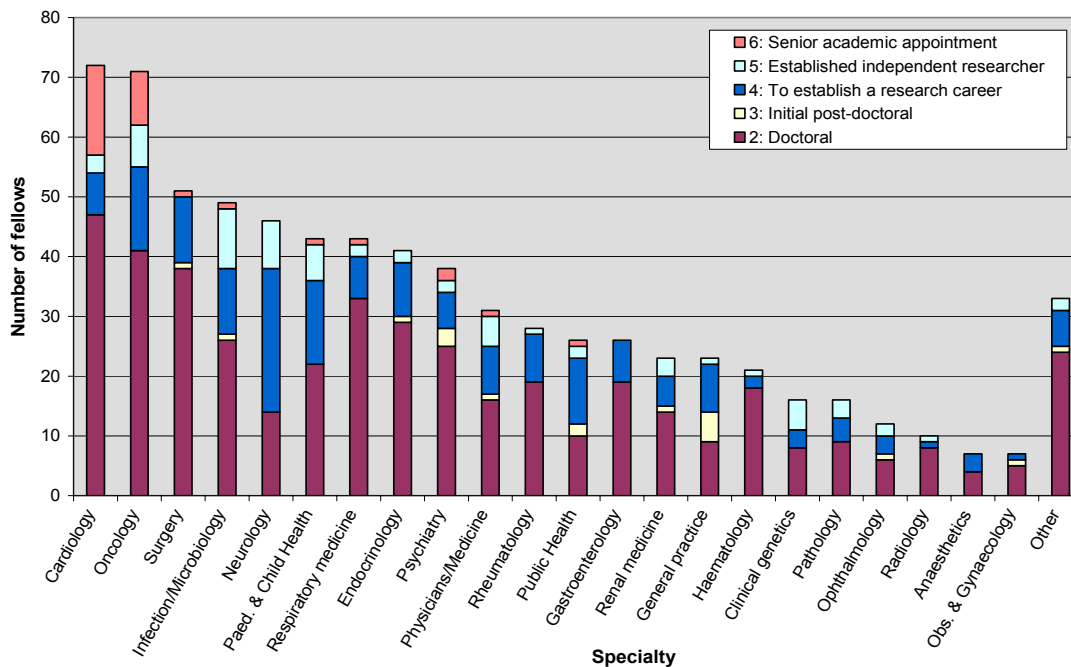
²⁴ Includes ACF, CL and CSLA. 'Other' in the specialty list includes, for example, dermatology, pharmacology, genitourinary, immunology.

Figure 3: All medically qualified fellows - distribution by specialty (excludes dentists)



The potential impact of the integrated pathway fellowships on capacity within different specialties, such as surgery and general practice, can be seen by comparing Figures 3 and 4. Figure 4 shows the distribution of the 733 competitive medical fellowships that were awarded by the charities, health departments and research councils²⁵.

Figure 4: Distribution of fellows across medical specialties (excl ACF etc)



The specialties with very low numbers of fellows in both Figures, suggesting little supply of research capacity, include anaesthetics, obstetrics and gynaecology, radiology and ophthalmology. Pathology and clinical genetics also seem to have relatively low numbers, and there appear to be relatively few doctoral or pre-doctoral researchers entering neurology. In

²⁵ The ACF, IPF, CL and CSLA fellows have been excluded to assess the distribution of other competitive fellowships and to allow comparability for analyses across the UK. For analyses on the total research capacity illustrated in the OSCHR Fellowship survey, they have been included.

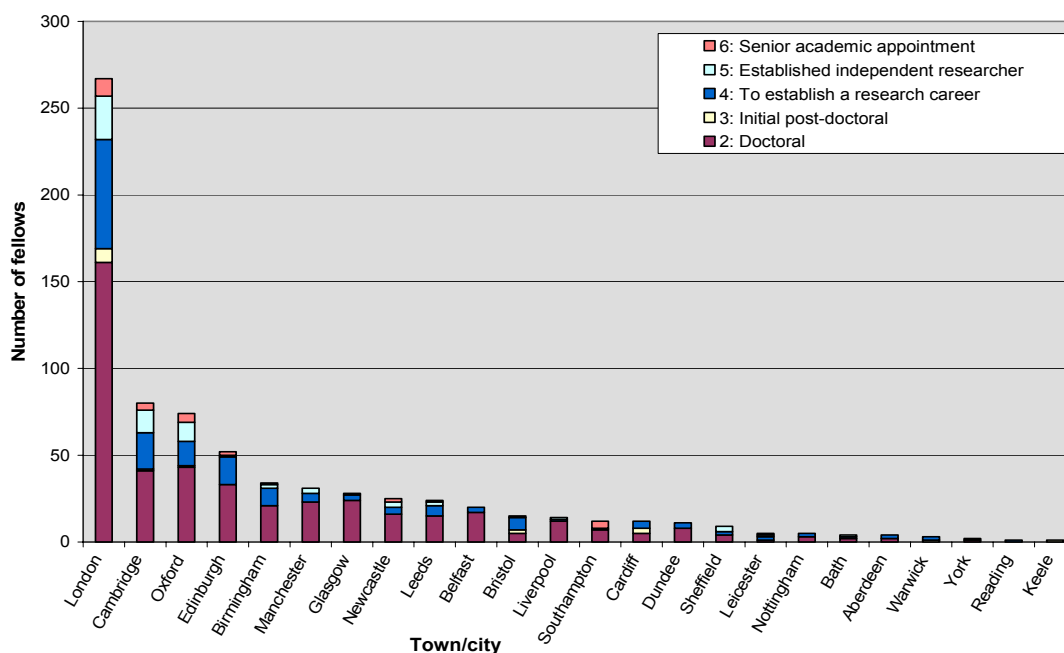
addition, no fellowships outside the integrated clinical academic training pathway were reported in the OSCHR survey for medical education or occupational medicine.

In terms of academic leadership, there appear to be relatively few established fellows at a senior level²⁶ in surgery, rheumatology, gastroenterology, general practice, haematology, and those specialties already identified above as having low numbers of fellows.

4.3.3 Medical fellowships – distribution by geographic location

The geographic distribution of fellows, excluding the ACFs *et al*, is shown in Figure 5.

Figure 5: Location of medical fellows (excl ACF etc)



4.3.4 Comparison of the distribution of the ACFs and doctoral fellowships

By specialty

The distribution by specialty, in England, of the ACFs/ IPFs vs research training fellowships (i.e. pre-doctoral against doctoral fellowships) is shown in Figure 6a²⁷. The ACF/IPF fellowships in each specialty are shown in blue, and the doctoral fellowships in red. The same analysis but for CL vs clinician scientist (i.e. post-doctoral against intermediate awards), is shown in Figure 6b. The order of specialties in 6b follows that in 6a.

For comparison, the same data, but with the specialties ordered according to the number of doctoral fellowships in each specialty (i.e. those on the right hand side), are presented in Figures 7a and 7b.

²⁶ Who are therefore able to contribute to the academic leadership in the discipline.

²⁷ Note: there will be a time delay for ACFs/IPFs translating into more competitive applicants for RTFs.

Figure 6a: Medical pre-doctoral and doctoral fellows by specialty (England only)

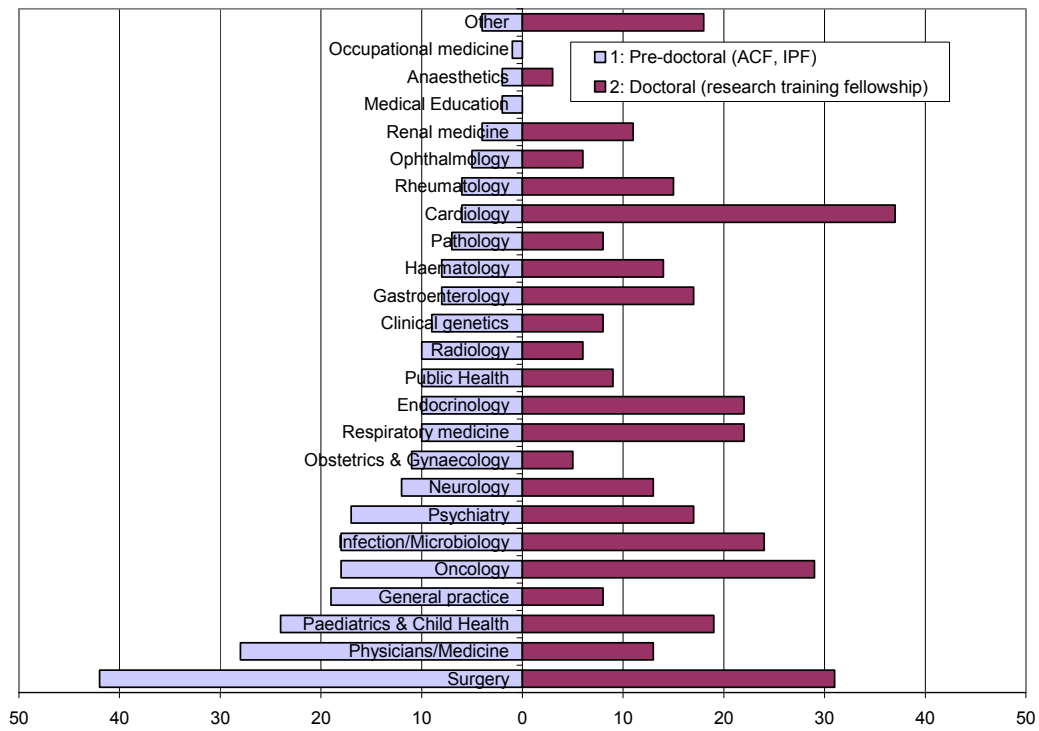


Figure 6b: Medical post-doctoral and intermediate fellows by specialty (England only)

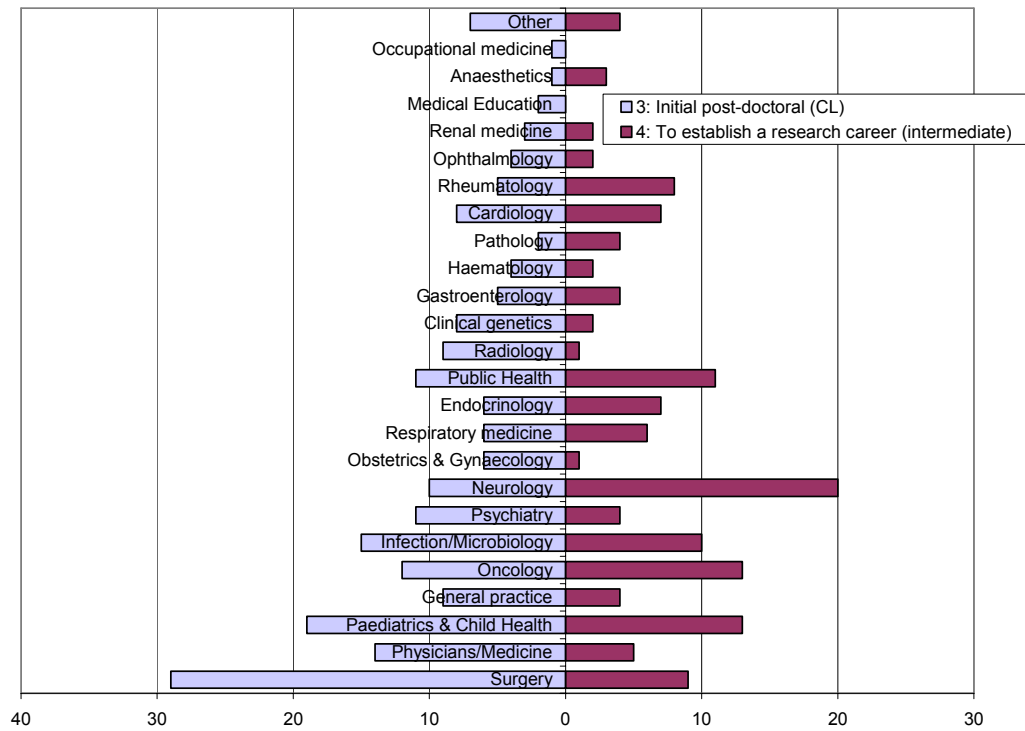


Figure 7a: Medical pre-doctoral and doctoral fellows by specialty, in England

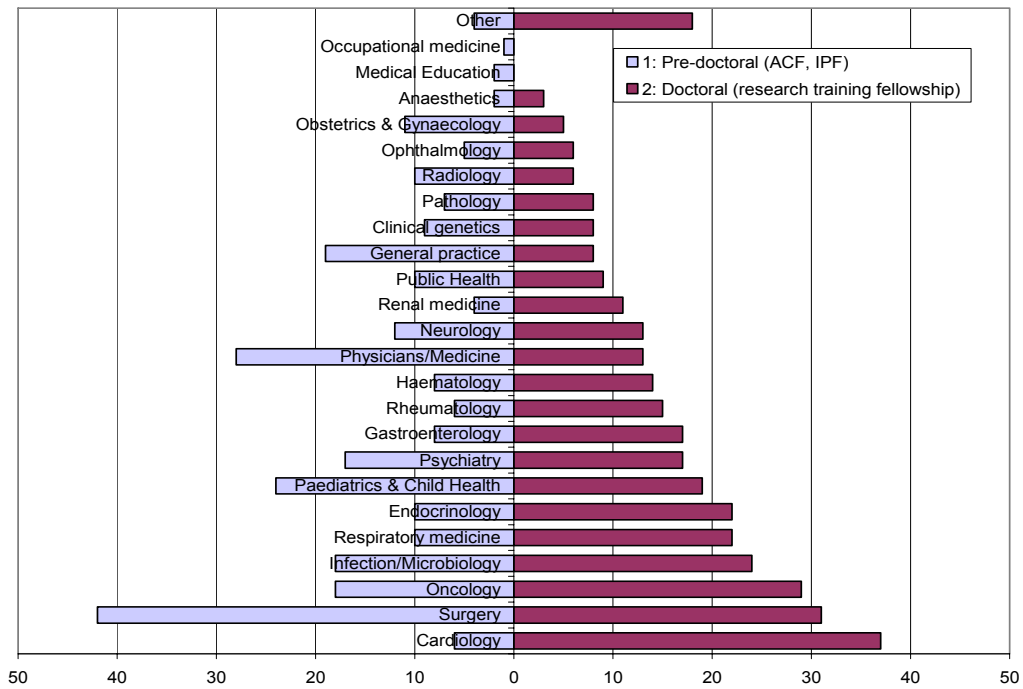
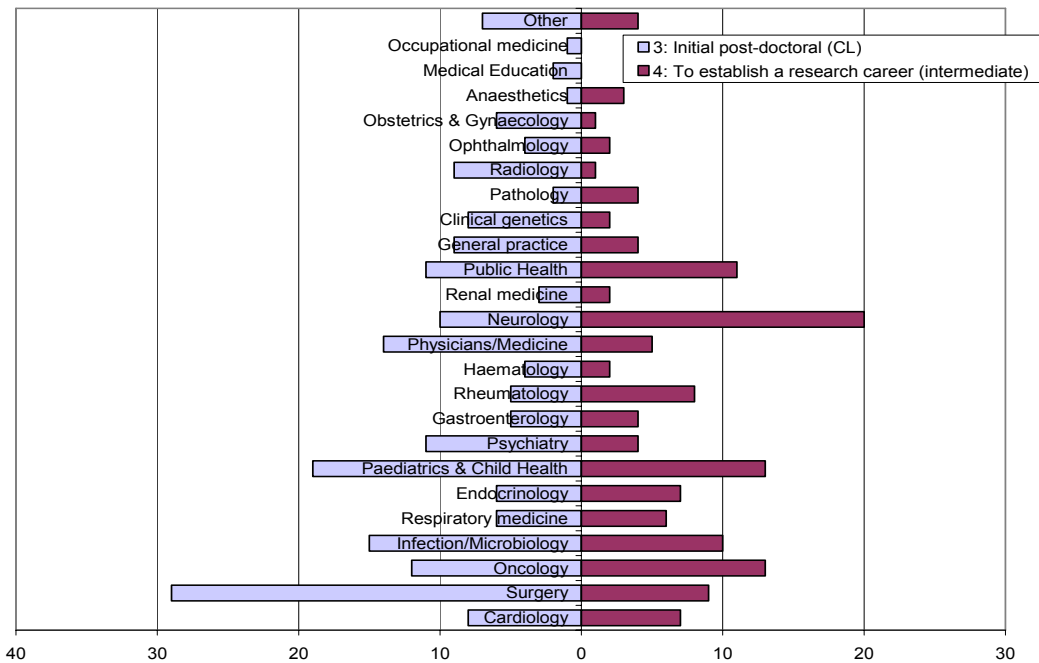


Figure 7b: Medical post-doctoral and intermediate fellows by specialty (England only)



By geographic location

The distribution by location in England of the ACFs/ IPFs vs research training fellowships is shown in Figure 8. The same analysis but for CL vs clinician scientist, i.e. post-doctoral against intermediate awards, is shown in Figure 9. The most noticeable feature is that ACFs and CLs appear to be more evenly distributed geographically²⁸.

²⁸ This reflects the NIHR position, taken after consultation, of balancing the spread of training opportunities across England to reflect wider engagement in applied health research.

Figure 8: Medical pre-doctoral and doctoral fellows by location (England only)

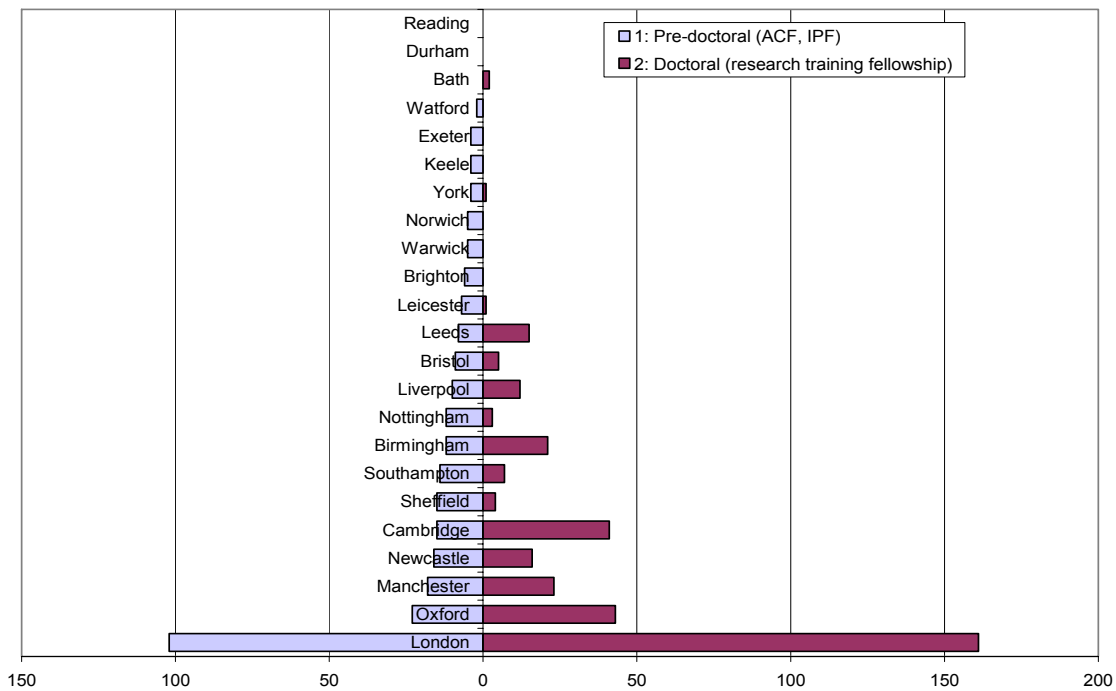
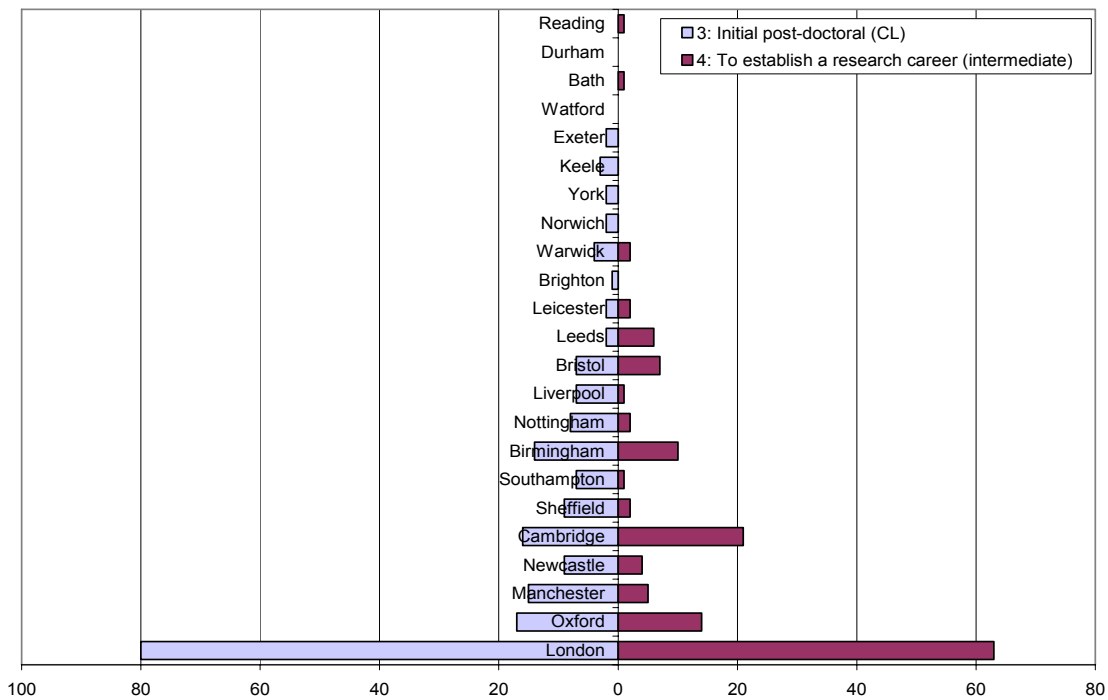


Figure 9: Medical post-doctoral and intermediate fellows by location in England



It has not been possible to do similar analyses for Scotland, Wales or Northern Ireland in this survey. NHS for Education in Scotland (NES) funds 101 CLs within Scotland (these are not directly comparable to the English CLs); 82 Fellows (mostly OOPes²⁹ doing a higher degree); and 19 Advanced Fellows. However, the existing data is not compatible with the OSCHR fellowship survey. Wales and Northern Ireland have recently launched 'enabling' fellowships similar to the English NIHR schemes.

²⁹ Out Of Programme Experience – taking time out of the clinical training programme.

4.4 Dentistry, allied health professions, other health professions

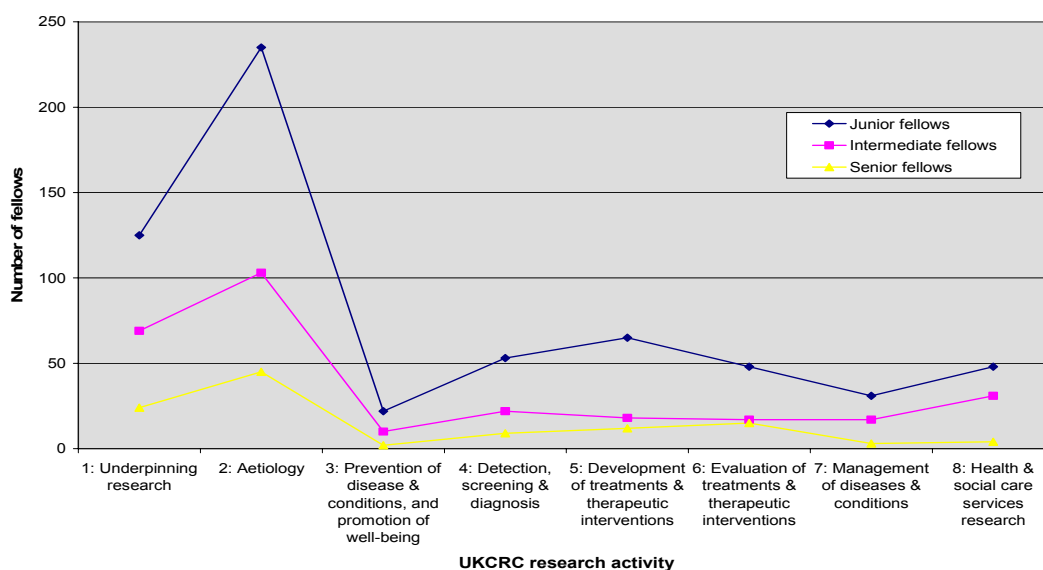
The Dental Schools Council (DSC) has provided data on dental academic posts (see **Appendix 1**). There appears to be good dental academic capacity within the universities (i.e. professorial and senior lecturer posts) but very few junior research posts were evident in either the DSC survey or the OSCHR Fellowship survey³⁰.

The OSCHR Fellowship survey identified relatively little academic capacity in dentistry, nursing and midwifery, the allied health professions, and other health professions (e.g. medical physics and engineering, audiology)³¹ (**Appendix 1**). There are a number of NHS or Funding Council-supported posts within the university sector in these professions that have not been captured within this exercise. However, very few senior-level fellowships, in nursing and midwifery in particular, and in the allied health professions, were identified within the OSCHR Fellowship survey.

4.5 Overview of research funded through the fellowships UKCRC research activity

The research funded through all of the fellowships in the OSCHR survey was classified according to both primary UKCRC research activity and UKCRC health category³². The small peaks of junior researchers at areas 5 (development of treatments etc) and 8 (HSR) are encouraging, despite the low levels of intermediate and senior fellows in those areas (Figure 10). This may reflect recent initiatives in these areas.

Figure 10: proportion of research by UKCRC research activity (all data)



The overall pattern of research across the UKCRC research activities shown in the OSCHR survey³³ (Figure 11) is very similar to that shown in the UKCRC report *UK Health Research Analysis* published in 2006 (Figure 12). The focus is still on underpinning research and aetiology, and the research activities least well represented are prevention and management. There has been some increase in HSR. It is important to note that the majority of the OSCHR survey fellowships will have been awarded in the financial years 2005/6, 2006/7, and 2007/8, so recent funder initiatives may not be reflected in the data.

³⁰ NIHR has announced increased allocations of dental ACFs and CLs.

³¹ However, the Chief Nursing Officer (England) and HEFCE fund research capacity building awards at Masters, post-doctoral and CL levels, and these would appear in future surveys. HEFCE supports capacity building in HEIs as part of their Capability Funding scheme. Discussions are continuing with HEFCE about the launch of an SCL scheme for some of these professions.

³² The exceptions are ACF, IPF and CL fellowships (for which there is neither research activity nor health category), and CSLAs (for which there is only health category information).

³³ Note: data are aggregated for all funders participating in the survey.

Figure 11: Proportion of OSCHR survey fellows working in each UKCRC research activity

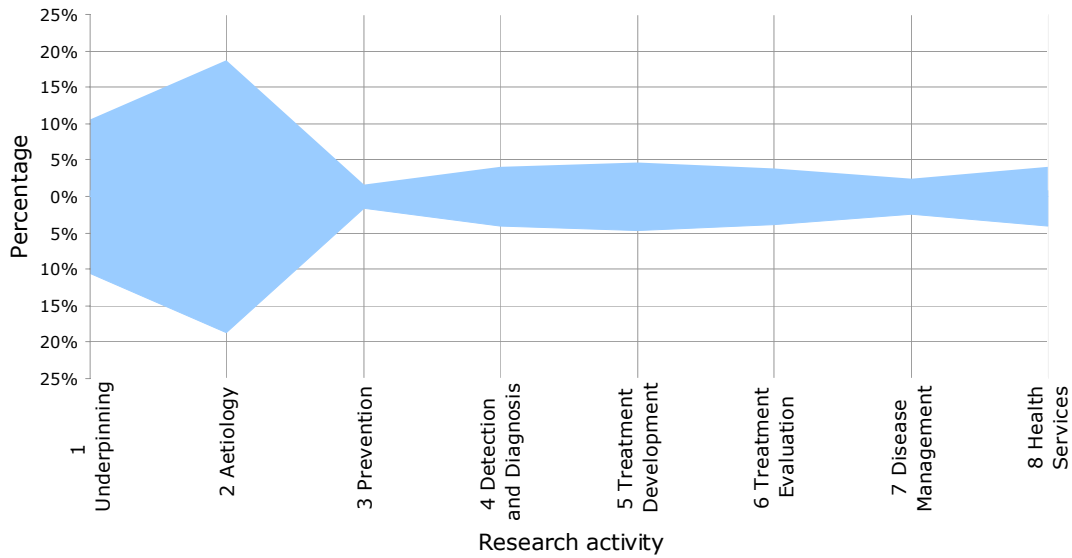
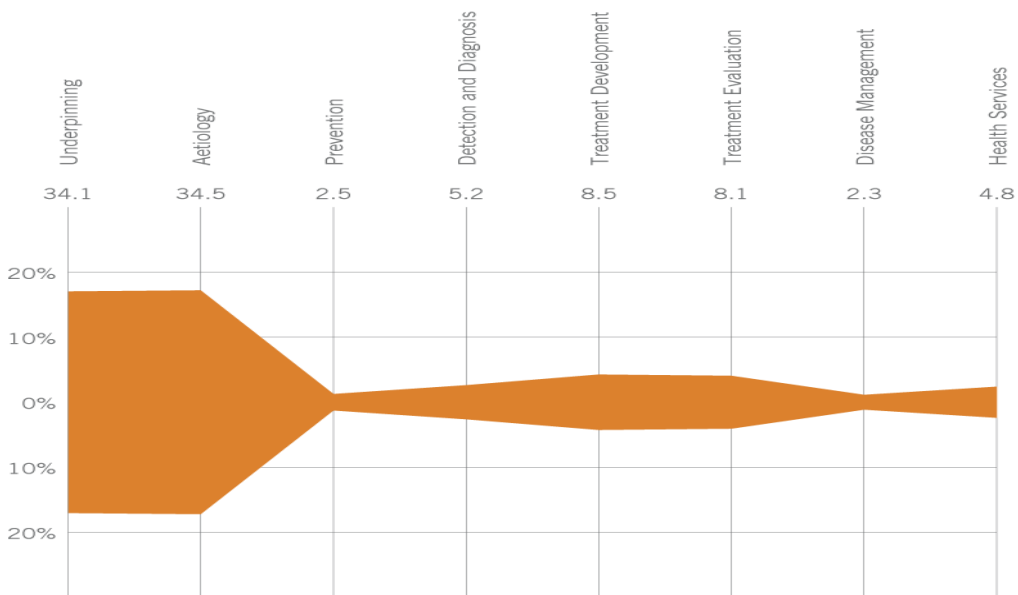


Figure 12: Extracted from UKCRC's UK Health Research Analysis, 2006

Proportion of Combined Total Spend by Research Activity - Kite Diagram

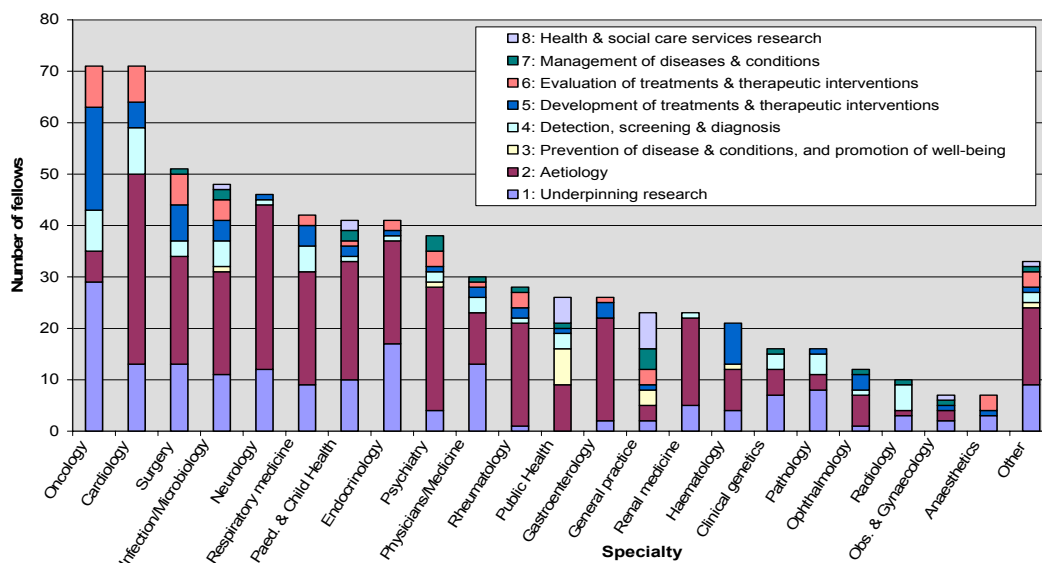


Data source: UKCRC Health Research Analysis

Medical specialty - UKCRC research activities.

Figure 13 shows the distribution, within each medical specialty, of research across the UKCRC research activities (medical fellows only).

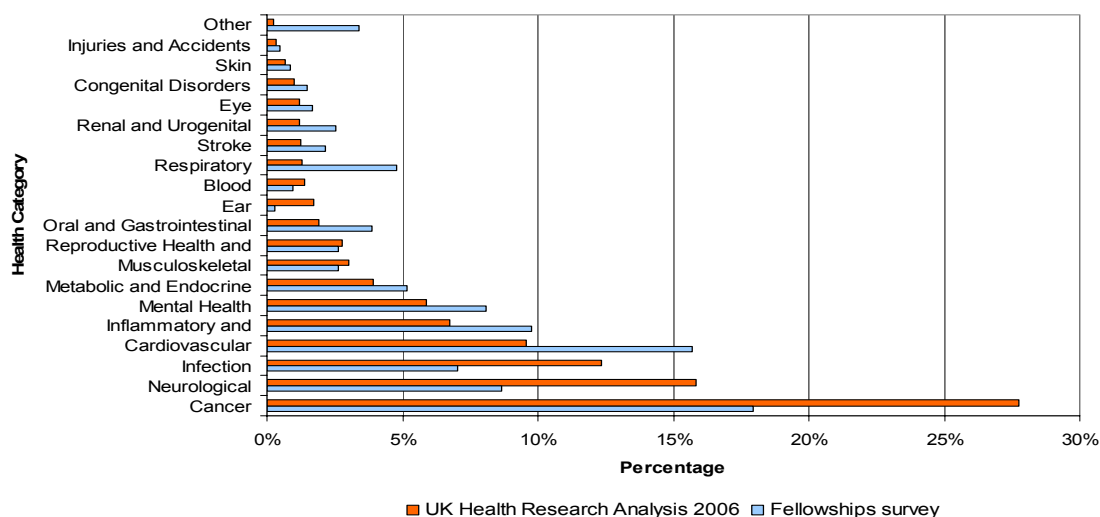
Figure 13: UKCRC research activity within the medical specialties



UKCRC health category

The spread of fellowships³⁴ across UKCRC health categories is also broadly consistent with the overall balance of research funding in 2006 (Figure 14)³⁵. Outliers with a substantially lower percentage of support are cancer, neurology, and infection; and those with a noticeably higher percentage of support are the cardiovascular, gastro-intestinal, and respiratory categories. The latter two were identified in the 2006 UKCRC report as areas where research spend was low in relation to burden of disease, so the OSCHR survey findings are consistent with funders having taken steps to address this.

Figure 14: OSCHR survey fellowships in each UKCRC health category compared with UKCRC data 2006



HSR and public health supported

Fellowships with a focus on HSR and public health methodologies were identified in the survey (Figure 15)³⁶. There are very few fellowships at the senior level in health psychology and health economics, and none in informatics, statistics, and social science. However, it is important to note that the survey excludes most intra-mural support³⁷, much of which was established specifically to address capacity issues.

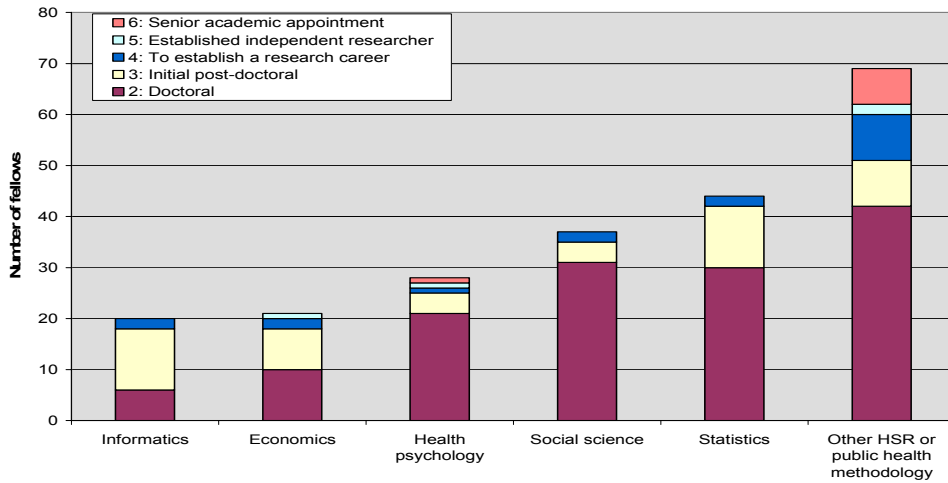
³⁴ Includes all fellowships in the survey except ACF, IPF and CL. Includes CSLA.

³⁵ NB the OSCHR Fellowship Survey only shows fellowship support. General health relevance was excluded from the 2006 study, and therefore has been excluded from the OSCHR figures as well.

³⁶ Including non-health professionals with fellowships in HSR or public health.

³⁷ Such as the European Bioinformatics Institute, and the MRC Biostatistics Unit

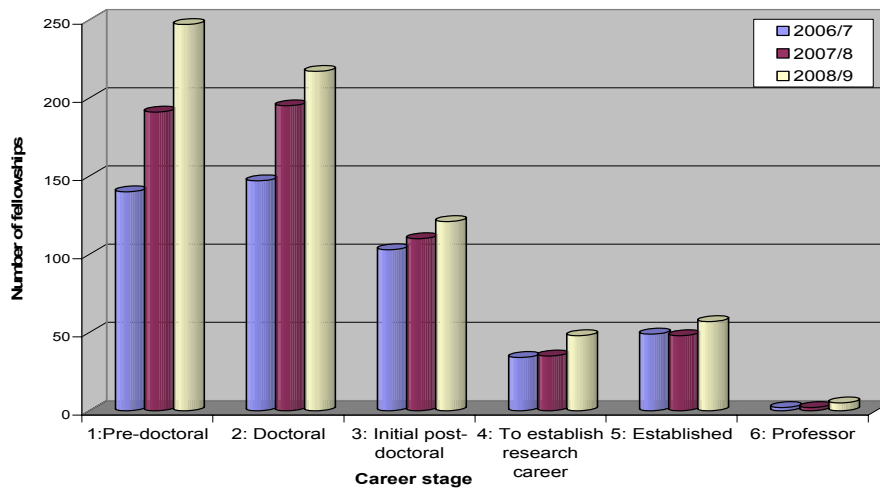
Figure 15: HSR & public health research fellowships



Flux data

Figure 16 shows the number of fellowships awarded in each of the last three financial years.³⁸ There are a relatively low number of intermediate awards compared to pre-doctoral and doctoral awards (note: the flux data includes non-medically qualified fellows). Therefore there may be increased pressure on intermediate award competitions in future as the junior fellows progress through the system.

Figure 16: OSCHR survey - fellowship awards across all funders



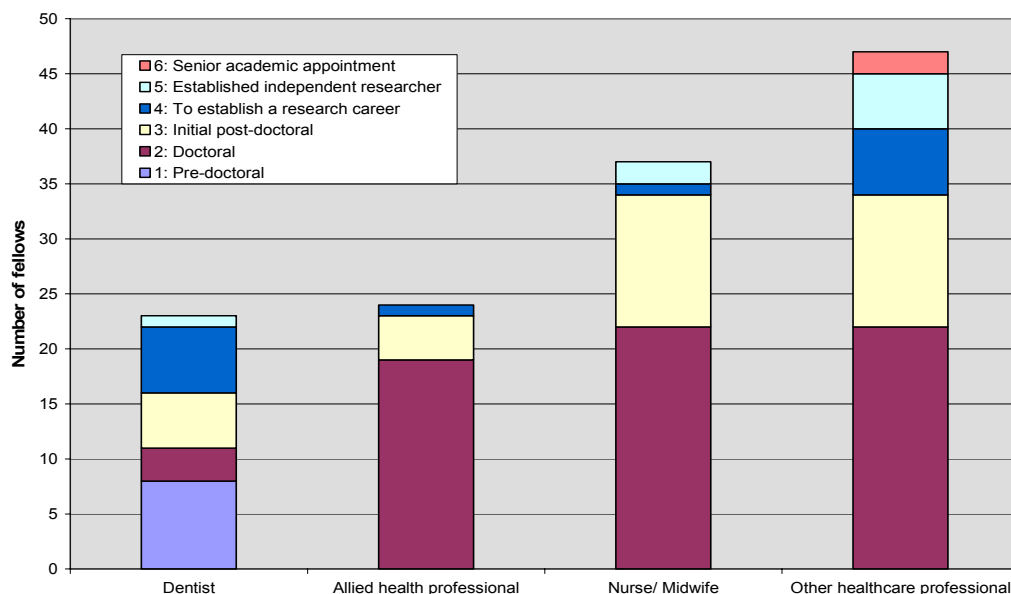
³⁸ Includes all fellowships, medical and non-medical, and economics etc. It is estimated that over 80% of the fellows are medically qualified. The majority of the awards to non-medics are likely to be in the doctoral category. Wellcome Trust figures are for academic years not financial years, and for 2008/9 are estimates. WT senior figures do NOT include renewals, only new awards.

Appendix 1

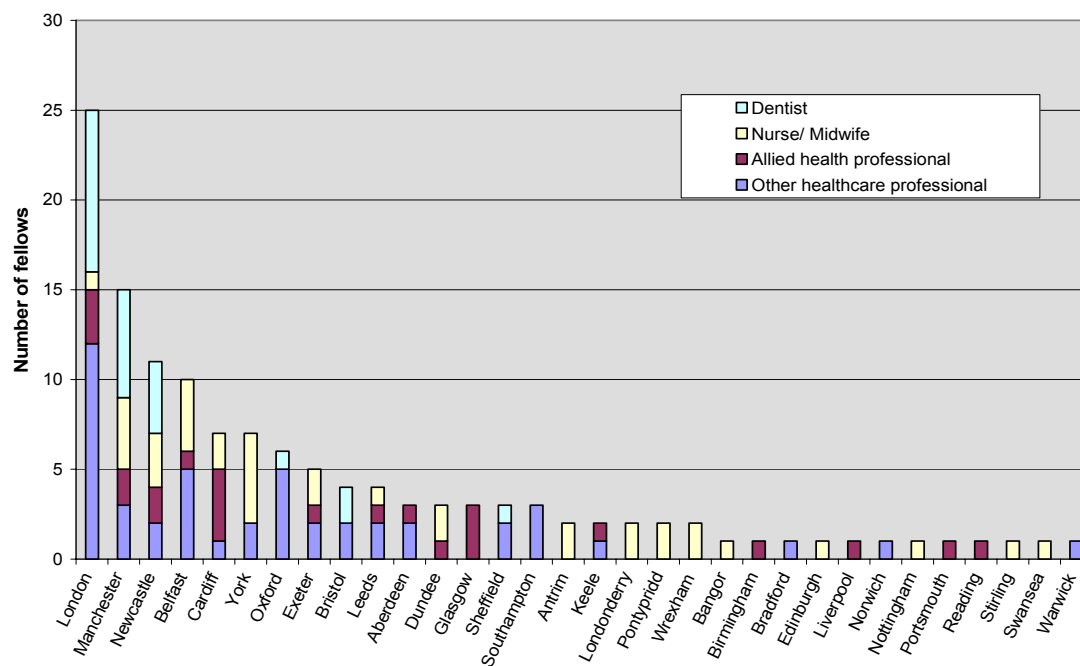
Dental profession, nursing/midwifery, allied health profession and other health professionals

OSCHR Fellowship survey data on dentists and health professions (excluding medically-qualified doctors)

Fellowships survey - distribution of professions other than non-health professionals and medically-qualified doctors



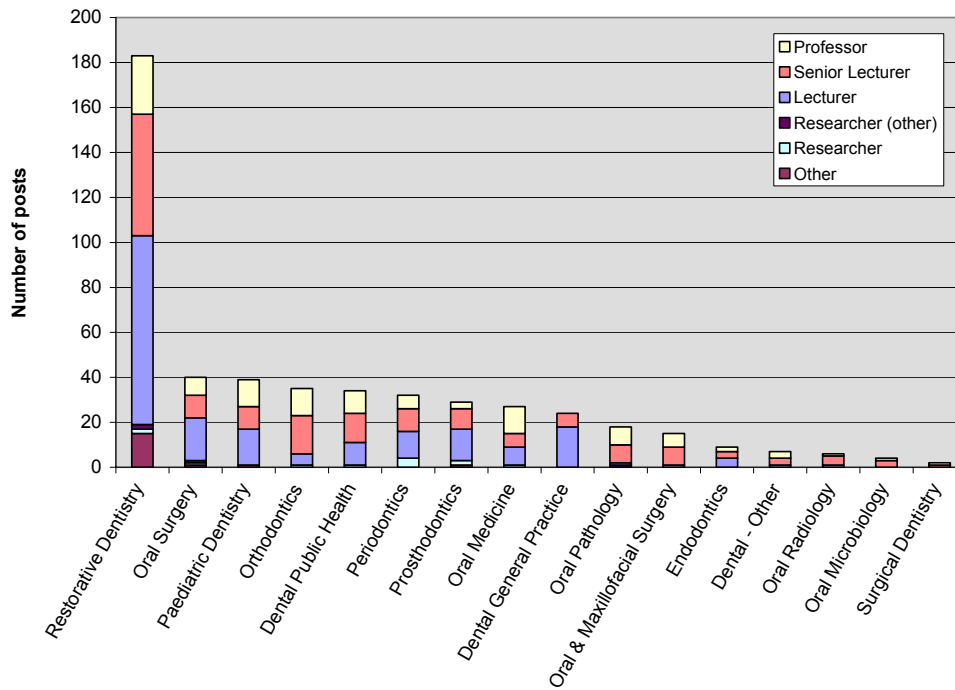
Fellowship survey: geographic distribution of health professions excluding medically-qualified doctors



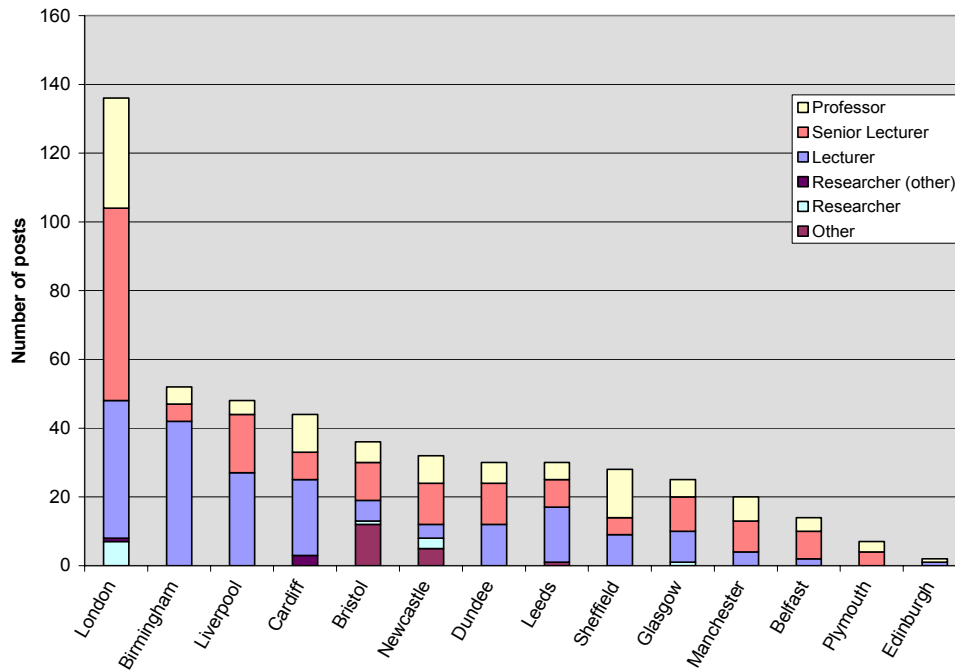
Dental Schools Council data, for comparison

The Dental Schools Council publishes data on the number of professorial, reader/senior lecturer and lecturer post holders with a substantive university contract and an honorary NHS contract. The numbers of researcher posts reported by dental schools may be less reliable, but are included in the following two figures for comparison.

Dental Schools Council: distribution by dental specialties



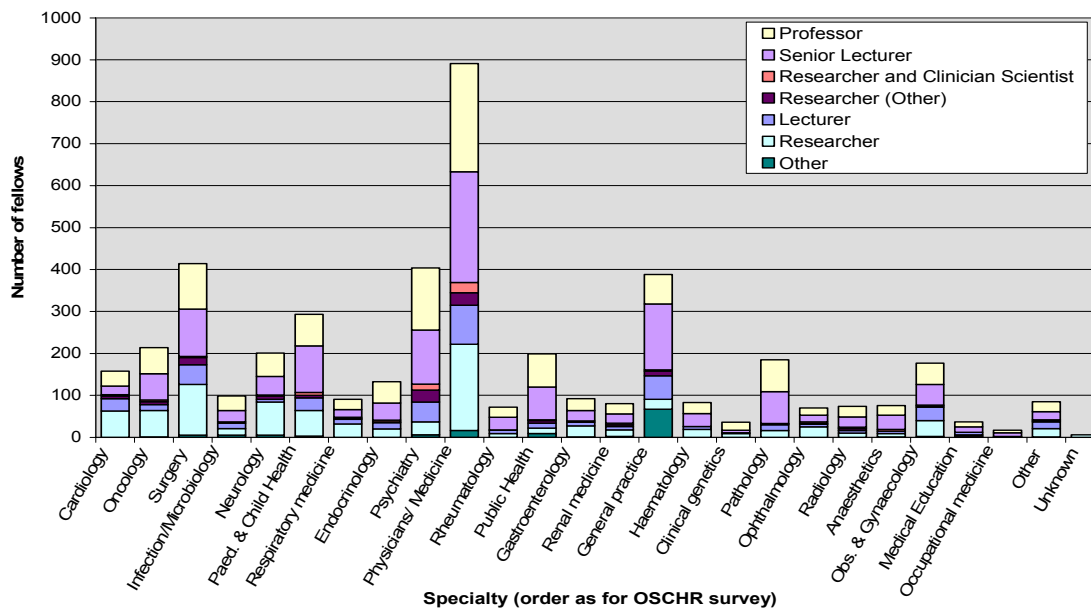
Dental Schools Council: distribution of dental specialties



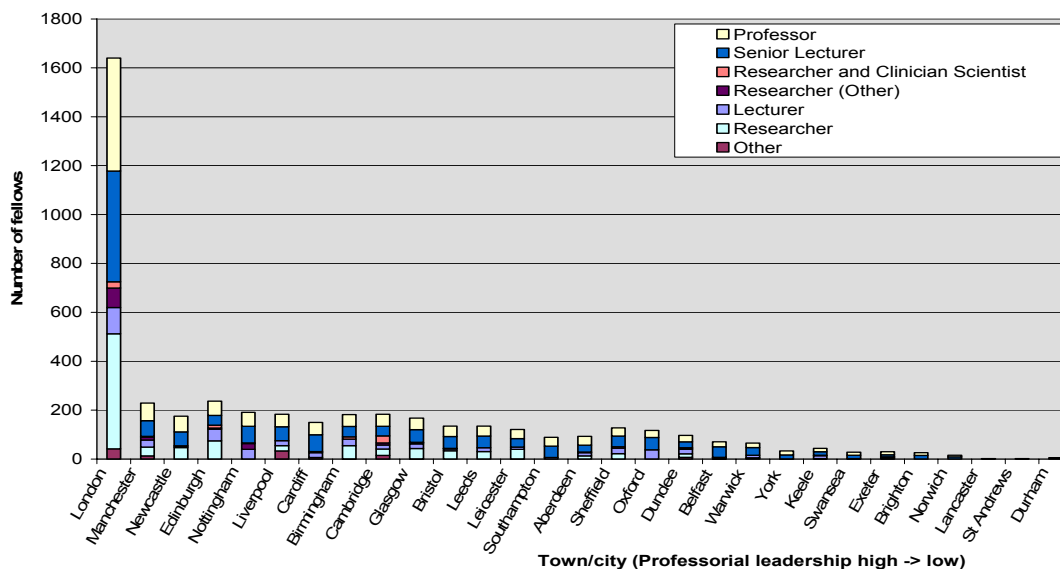
Appendix 2 Medical Schools Council data

For comparison, the data collected by the Medical Schools Council (MSC) in summer 2008³⁹ was analysed. The figures in this Appendix show the distribution across specialties and geographical spread of posts reported within the MSC survey⁴⁰. No data from the OSCHR survey is included. The focus of the MSC data collection is on professorial, reader/senior lecturer, and lecturer posts. The numbers of researcher posts reported by the medical schools may therefore be less reliable⁴¹.

MSC data: academic capacity by specialty



Med. Schools data 2008: Location of clinical academic posts



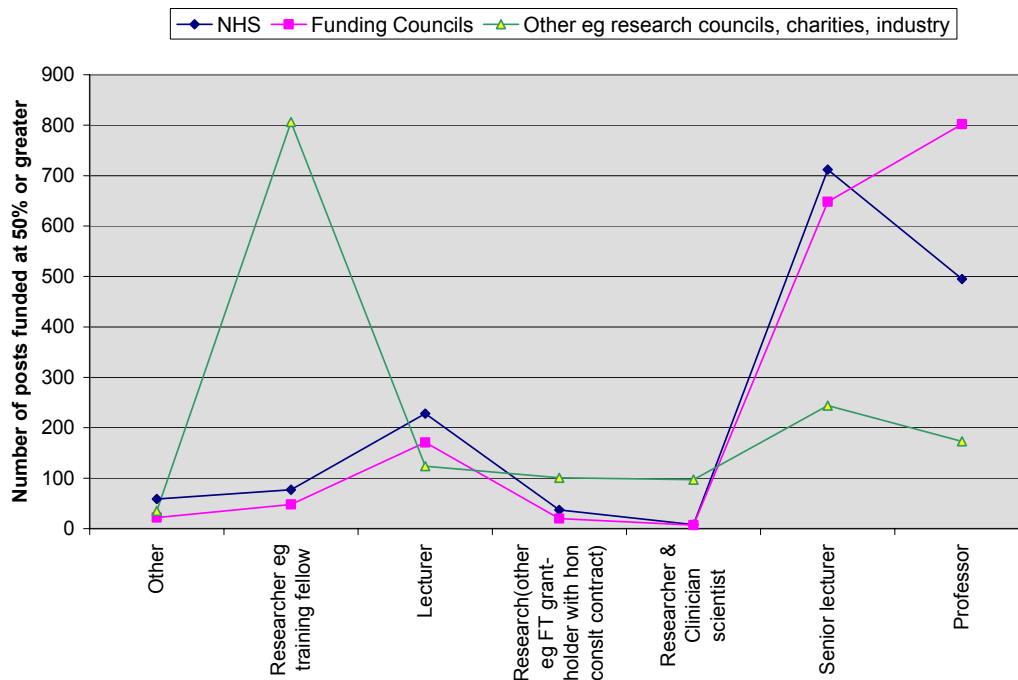
³⁹ The 2009 MSC Survey was made available to the survey prior to publication by the MSC at the end of May 2009.

⁴⁰ Posts reported have substantive contracts with the Medical Schools, and an honorary clinical appointment. Posts that are clearly concerned primarily with teaching and administration have been excluded from the analysis. The data includes corrected data for a UK university received by the MSC after their report had been published.

⁴¹ Hence data on researcher posts is not published by the MSC.

The following figure suggests that the majority of junior research posts are funded by funders other than the Funding Councils and NHS, whereas the senior lecturer and professorial posts are primarily funded by the Funding Councils and NHS.

Med Schools Council data: funders providing $\geq 50\%$ funding for clinical academic posts



DOCUMENT AUTHORSHIP & APPROVALS

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DH approval: Dr David Cox (Deputy Director, NIHR Research Faculty), 28th July 2009.

MRC sign-off: Dr Peter Dukes (Head, Research Careers Awards, Research Programmes Group, MRC), 8th September 2009.

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