



## EUROPE

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# Errata

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To: *Recipients of RR-318-DH, Analysis of research and education indicators to support designation of Academic Health Science Centres in England*

From: RAND Corporation Publications Department

Date: May 2013

Re: Corrected pages (pp. 18-20, 23-24 and 61-63)

We have updated the original report making the following three clarifications and corrections:

- On page 18, the text in Section 3.3.2 reads, “This means that 1% of global HCPs classified...”. This has been amended to read “This means that 1% of global HCPs with an English address classified...” for clarification.
- In Figure 3-1 (Page 19), Tables 3-2 (page 20), 3-5 (pages 23-24), D-1 (page 61), and D-2 (pages 62-63), some NHS Foundation Trusts (NHSFTs) have been represented as NHS Trusts (NHSTs) and vice versa. These have now been amended.
- On page 61, in Table D-1, “Imperial College London” was incorrectly represented as the institution with the highest proportion of collaborative publications with Moorfields Eye Hospital NHS Foundation Trust (57%). This should read “University College London” and has now been amended.

- **Co-publication** between universities and NHS institutions as an indicator of collaboration. These results are presented in Appendix D.

### 3.3.2 Results

#### **Number of Highly Cited Papers**

In Figure 3-1 below, we show the volume of HCPs published between 2002 and 2011 for institutions that have, on average, more than 30 highly cited papers per year. On this measure, University College London, the University of Oxford, Imperial College London, the University of Cambridge and Kings College London lead the field. Table 3-2 and Table 3-3 present the annual numbers of HCPs per year for the selected NHS institutions and universities, respectively, over the same period. As is the case for citations in other contexts, the distribution of HCPs across these organisations is highly skewed, with relatively few organisations responsible for a significant number of HCPs: the 5 leading NHS institutions together account for 36.7% of NHS organisation HCPs, while the 5 leading universities together account for 51% of university HCPs.

#### **Concentration of Papers by Journal Subject Category (JSC)**

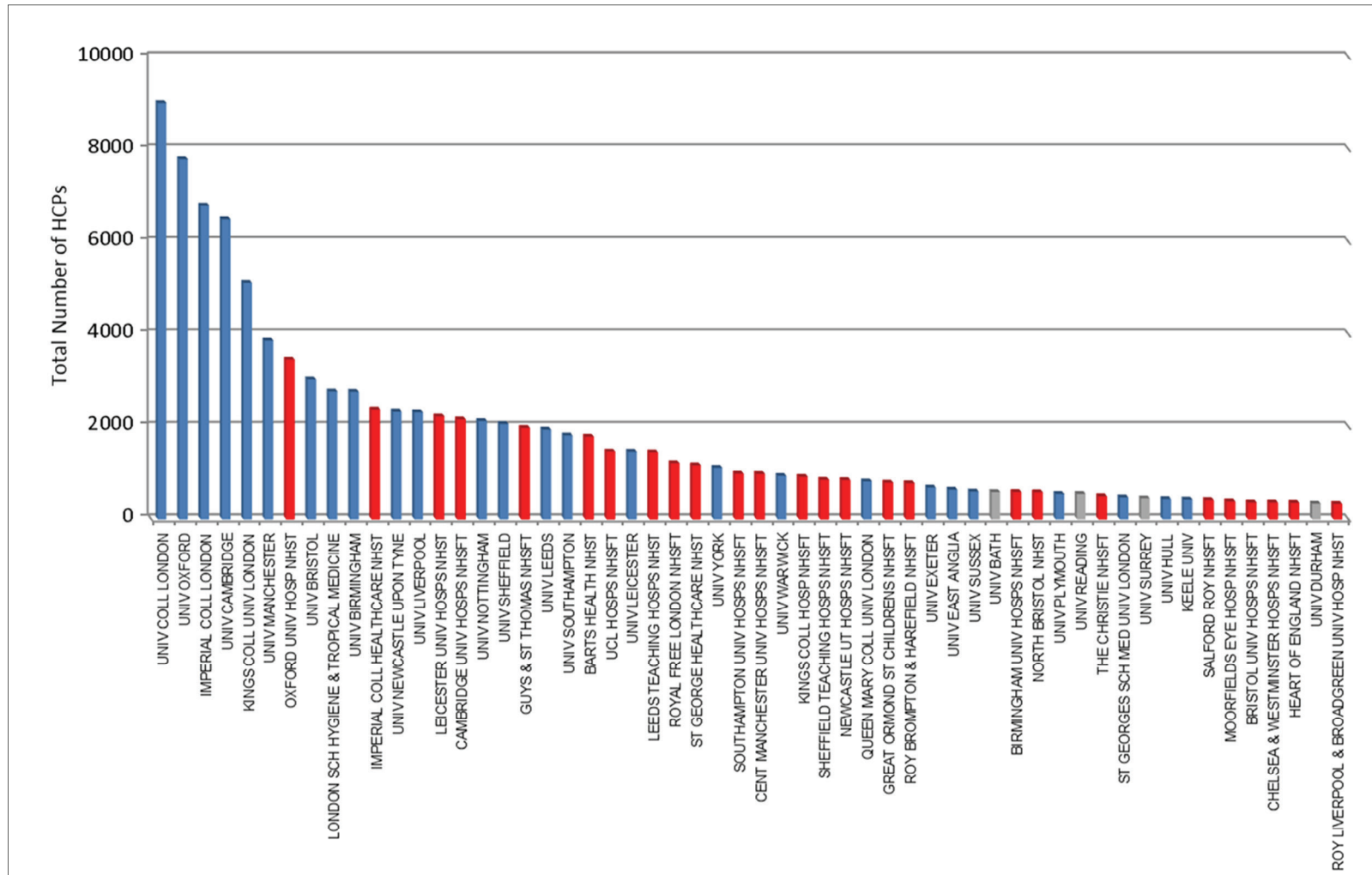
We record the share of HCPs by field of research (as determined by JSC) and by university in Table 3-4. Each cell indicates the share of HCPs in the research field that may be attributed to a given university. For example, the first cell in the first row, for the University of Birmingham and Allergy, records 1%. This means that 1% of global HCPs with an English address classified within the Allergy field have an address associated with Birmingham. Note that we have performed a similar analysis for NHS institutions and present the analogous table in Appendix D.

In Table 3-5, we list all those field/university combinations that have more than a 10% share of papers published in a specific JSC. To limit the number of field/organisation combinations, and to ensure critical mass within a field, we have restricted this list to fields with more than 100 HCPs.

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<sup>16</sup> Papers are fractionalised based on the extent to which they belong to the selected fields: some papers may be considered as belonging to more than one field; in this case credit is divided among the fields.

Figure 3-1: Total number of HCPs for English institutions with annual average number of HCPs greater than 30, 2002–11 (universities are shown in blue and NHS institutions are shown in red)



**Table 3-2: Annual numbers of HCPs for selected NHS institutions, 2002–11**

<b>Institution</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>Total</b>	<b>Average</b>
Barts Health NHS Trust	152	127	157	142	143	166	192	220	235	249	1783	178
Cambridge University Hospitals NHS Foundation Trust	153	145	173	202	216	205	230	233	302	307	2163	216
Central Manchester University Hospitals NHS Foundation Trust	68	83	88	97	97	84	106	111	127	124	985	98
Chelsea & Westminster Hospitals NHS Foundation Trust	36	25	38	40	38	31	34	32	45	41	361	36
Great Ormond Street Hospital for Children NHS Foundation Trust	63	64	57	73	61	80	96	83	112	103	790	79
Guy's & St Thomas' NHS Foundation Trust	164	178	133	174	183	206	212	194	264	267	1975	197
Heart Of England NHS Foundation Trust	34	27	46	36	30	33	38	32	41	42	358	36
Imperial College Healthcare NHS Trust	225	222	206	214	244	248	259	229	269	257	2372	237
Kings College Hospitals NHS Foundation Trust	66	66	71	66	90	79	108	100	144	129	920	92
Leeds Teaching Hospitals NHS Trust	112	128	125	125	118	170	151	168	170	179	1445	145
Moorfields Eye Hospital NHS Foundation Trust	27	35	35	38	32	40	44	40	48	48	387	39
Newcastle upon Tyne Hospitals NHS Foundation Trust	78	68	84	90	86	82	89	88	97	86	849	85
North Bristol NHS Trust	56	46	54	54	50	50	63	53	78	72	582	58
Oxford University Hospitals NHS Trust	307	281	337	351	290	355	363	353	411	405	3452	345
Royal Brompton & Harefield NHS Foundation Trust	75	62	68	71	74	81	83	76	93	99	781	78
Royal Free London NHS Foundation Trust	99	109	114	103	132	118	128	138	127	142	1208	121
Royal Liverpool and Broadgreen University Hospitals NHS Trust	23	26	29	35	26	32	32	40	40	50	334	33
Salford Royal NHS Foundation Trust	44	40	37	47	46	42	39	43	36	39	414	41
Sheffield Teaching Hospitals NHS Foundation Trust	72	71	92	88	84	96	94	79	79	101	857	86
St George's Healthcare NHS Trust	174	180	174	140	83	94	85	78	71	86	1166	117
The Christie NHS Foundation Trust	47	37	41	54	50	48	48	45	59	66	495	49
UCL Hospitals NHS Foundation Trust	104	109	136	127	122	146	149	153	212	205	1463	146
University Hospital Southampton NHS Foundation Trust	91	96	109	97	79	91	94	85	119	128	989	99
University Hospitals Birmingham NHS Foundation Trust	66	42	55	56	70	48	75	56	62	60	589	59
University Hospitals Bristol NHS Foundation Trust	24	27	28	35	31	31	37	42	52	57	365	36
University Hospitals of Leicester NHS Trust	211	228	196	191	172	224	225	229	262	290	2226	223

**Table 3-5: Organisations with more than 10% of HCPs by field (in fields with more than 100 HCPs)**

<b>THOMSON ISI FIELD (JSC)</b>	<b>ORGANISATION</b>	<b>Share of HCPs in 2002–2011 (%)</b>
Allergy	Imperial College London	18
Audiology & Speech-Language Pathology	University of Cambridge	14
	University College London	13
Biochemical Research Methods	Imperial College London	12
	University of Cambridge	11
	University of Oxford	10
Biochemistry & Molecular Biology	University of Cambridge	13
	University of Oxford	12
Biophysics	University of Oxford	16
	University of Cambridge	15
Biotechnology & Applied Microbiology	University of Cambridge	10
Cardiac & Cardiovascular Systems	Imperial College London	10
Cell Biology	University of Cambridge	15
	University College London	11
Chemistry, Medicinal	University of Oxford	12
Clinical Neurology	University College London	18
Critical Care Medicine	Imperial College London	11
Dentistry/Oral Surgery & Medicine	Kings College London	13
	University College London	12
	UCL Hospitals NHS Foundation Trust	12
Dermatology	Guy's & St Thomas' NHS Foundation Trust	11
Developmental Biology	University of Cambridge	20
	University College London	14
Engineering, Biomedical	Imperial College London	11
	University College London	10
Food Science & Technology	University of Reading	15
	University of Bristol	10
Genetics & Heredity	University of Oxford	11
Immunology	University of Oxford	13
	Imperial College London	11
Infectious Diseases	London School of Hygiene & Tropical Medicine	12

Table 3.5 continued

THOMSON ISI FIELD (JSC)	ORGANISATION	Share of HCPs in 2002–2011 (%)
Materials Science, Biomaterials	Imperial College London	10
Neuroimaging	University College London	27
	University of Oxford	12
Neurosciences	University College London	23
	University of Oxford	11
	University of Cambridge	11
Ophthalmology	Moorfields Eye Hospital NHS Foundation Trust	18
	University College London	17
Parasitology	London School of Hygiene & Tropical Medicine	19
	University of Oxford	12
	University of Liverpool	12
	Imperial College London	10
Pediatrics	University College London	10
Physiology	University College London	11
Psychiatry	Kings College London	25
Public, Environmental & Occupational Health	London School of Hygiene & Tropical Medicine	14
	University College London	10
Radiology, Nuclear Medicine & Medical Imaging	University College London	11
Respiratory System	Imperial College London	15
Substance Abuse	Kings College London	13
	University College London	11
Tropical Medicine	London School of Hygiene & Tropical Medicine	36
	University of Liverpool	14
	University of Oxford	14
Veterinary Sciences	Royal Vet Coll Univ London	22
	University of Liverpool	17
	University of Bristol	17
	University of Cambridge	12
Virology	University of Oxford	17
	University College London	11
	Imperial College London	11



## Appendix D: Further results from the bibliometric analysis

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For comparability with our other analyses, in Chapter 3 we focused attention on the bibliometric performance of universities, and have reserved presenting indicators focused on the performance of NHS institutions and on collaborations among universities and NHS institutions for this Appendix.

### Co-publication activity between institutions

In the table below ( Table D-1), we list the top 20 collaborative partnerships between NHS institutions ranked in the top 25 (by volume of HCPs) and universities. As one might expect, there is a high level of collaboration between co-located institutions. For example, 57% of HCPs produced by researchers from the Salford Royal NHS Trust are jointly authored with researchers who have a University of Manchester address. Table D-2 cross-tabulates the share of HCPs by field and NHS institution.

**Table D-1: Summary of the top 20 collaborative partnerships between top 25 NHS institutions (by volume of HCPs) and a university**

NHS Institution	University	Number of collaborative publications	Proportion of NHS institution publications sharing a university address (%)
Royal Brompton & Harefield NHS Foundation Trust	Imperial College London	344	60
Salford Royal NHS Foundation Trust	University of Manchester	260	57
Oxford University Hospitals NHS Trust	University of Oxford	2112	57
Imperial College Healthcare NHS Trust	Imperial College London	1344	57
Moorfields Eye Hospital NHS Foundation Trust	University College London	235	57
UCL Hospitals NHS Foundation Trust	University College London	745	55
Great Ormond Street Hospital for Children NHS Foundation Trust	University College London	418	55
Royal Free London NHS Foundation Trust	University College London	596	54
Chelsea & Westminster Hospitals NHS Foundation Trust	Imperial College London	109	54
Royal Liverpool and Broadgreen University Hospitals NHS Trust	University of Liverpool	130	53
University Hospitals Birmingham NHS Foundation Trust	University of Birmingham	262.5	50
Sheffield Teaching Hospitals NHS Foundation Trust	University of Sheffield	388.9	49
The Christie NHS Foundation Trust	University of Manchester	188.3	49
University Hospital Southampton NHS Foundation Trust	University of Southampton	515.6	48
Central Manchester University Hospitals NHS Foundation Trust	University of Manchester	452.7	44
Heart Of England NHS Foundation Trust	University of Birmingham	143.6	44
North Bristol NHS Trust	University of Bristol	226.5	43
Newcastle upon Tyne Hospitals NHS Foundation Trust	University of Newcastle upon Tyne	341.9	43
Guy's & St Thomas' NHS Foundation Trust	Kings College London	743.0	42
Leeds Teaching Hospitals NHS Trust	University of Leeds	478.1	41



