NIHR-HEE AHP Research Summit Pre-event Briefing Pack

Introduction

The need to transform health and social care delivery to better meet the changing needs and expectations of the communities they serve has been recognised for some time. Equally recognised is the critically important role of research and innovation in driving these transformations, including advances in treatments and interventions (Newington et al 2021; Comer et al 2022).

In keeping with that logic, building the capacity of AHPs to engage in research is itself a recognised priority based on the many benefits it brings for patients, healthcare professionals, healthcare organisations and society more broadly. Research-led and evidence-informed allied health practice enables optimisation of workforce capability and high-quality care (Slade et al 2018). Strengthening existing practice expertise with complementary research skills is most likely to occur when organisations consider research core business alongside practice, and when AHPs feel their engagement in research is valued as contributing to excellent service delivery (Matus et al 2018).

We know that 'when clinicians and healthcare organisations engage in research there is the likelihood of improvement in their healthcare performance, even when that has not been the primary aim of the research' (Boaz et al 2015, p10). However, we also know that there are considerable disparities in access to research-related developmental opportunities and careers, with AHPs faring considerably less favourably than doctors, for example, and variation evident between AHP disciplines (NIHR TCC 2017, Baltruks and Callaghan 2018). It is therefore in all of our interests to work collectively and collaboratively to explore solutions to the barriers and obstacles AHPs encounter in pursing research related careers, and drive transformation change equitably across all fourteen disciplines.

The information contained in this briefing pack summarises key drivers, highlights benefits to organisations, services and patients, and outlines data evidencing disparities in access to opportunities that support research engagement across the AHPs.

The main body of the pack (pages 1 – 19) provides brief notes and data intended to help you prepare to contribute actively to what we hope will be a busy and productive Summit.

Please make every effort to read this section ahead of the Summit.

The extended resources in the Appendices provide additional information and details. They may be useful in planning actions for your own organisation to take to support increasing AHP research capacity generally, and specifically in under-represented disciplines and groups.

Contents

Questions to consider ahead of the Summit

1. We know there are barriers and obstacles to AHPs pursuing careers that combine research and practice. *Why* do they exist?

2. *Why* are some AHP disciplines, and groups spanning disciplines, particularly under-represented?

3. What aspects of organisational and professional cultures and supporting infrastructures need to change to value and accelerate the growth, stability and sustainability of AHP research?

4. What would make the biggest difference in support of transformational change enabling AHPs to pursue, and have equitable access to, careers combining research and practice?

5. What can *you* and *your organisation* actively do to support, enable and accelerate equitable and transformational change?

NMAHP registrant numbers

Profession	No. *	Profession	No. *
Art Therapists, Music Therapists and Dramatherapists	4,952	Osteopaths	5,464
Dietitians	10,454	Paramedic	33,219
Midwives **	40,165	Physiotherapists	60,783
Nurses **	704,520	Podiatrists	12,248
Occupational Therapists	41,732	Prosthetists and Orthotists	1,124
Operating Department Practitioners	15,175	Radiographers	39,497
Orthoptists	1,495	Speech and Language Therapists	17,548

* Figures drawn from HCPC (August 2022 data); General Osteopathic Council register; NMC Annual Data Report 2021-22

** There are an additional 6,744 dual registered nurses/midwives

DRIVERS

NHS Long Term Plan

Published in 2019, the NHS Long Term Plan sets out the intention to move to a new model of service in which patients get more options, better support and properly joined-up care at the right time in the optimal care setting. There is also a commitment to take new, funded action to strengthen NHS contributions to prevention and health inequalities. Along with setting out NHS priorities for care quality and outcome improvement over the coming decade, the 'critical importance of research and innovation' to drive future advances in treatments and interventions is recognised, and a commitment is made for the NHS 'to play its full part in the benefits these bring to both patients and the UK economy' (p8).

It is recognised that '[p]atients benefit enormously from research and innovation, with breakthroughs enabling prevention of ill-health, earlier diagnosis, more effective treatments, better outcomes and faster recovery', and that ''Research-active' hospitals have lower mortality rates, with benefits not limited to those patients who participate in research' (p75).

Even prior to the pandemic, the NHS was faced with the challenge of unsustainable staffing vacancies. There is a recognised need for the NHS to become a more flexible and responsive employer, ensuring that staff have rewarding jobs, work in a positive culture and have opportunities to develop their skills (p78). The 170,000 AHPs spanning 14 professions 'can significantly support the demand profile the NHS faces' (p82). Workforce development is noted to have the potential to deliver a high return on investment. It offers staff career progression that motivates them to stay within the NHS and equips them with the skills to operate at advanced levels of practice to meet future patient needs (p85).

NHS People Plan

We are the NHS: People Plan 2020-21 – action for all of us was published in July 2020. It sets out actions to support transformation across the whole NHS. In addition to fostering a culture of inclusion and belonging, a fundamental principle is the need to develop new ways of working and delivering care, with emphasis placed on making effective use of the full range of staff skills and experience to deliver the best possible patient care (p6).

Retaining staff is a significant theme in the People Plan. That includes identifying that 'systems and employers must make greater efforts to design and offer more varied roles to retain our people' (p46), and noting that a continued focus on the development of skills and expanding capabilities will 'create more flexibility, boost morale and support career progression' (p34). Employers, line managers and supervisors are called on to 'create the time and space for the training and development … with a renewed emphasis on the importance of flexible skills and building capabilities rather than staying within traditionally-defined roles' (p36).

NHS England '22/23 priorities and operational planning guidance

Following the pattern set in 2021/22, NHS people have been further prioritised in the NHS England national planning guidance for 2022/23. Continuing the COVID-19 recovery plan, the document 'reconfirms the ongoing need to restore services, meet new care demands and reduce the care backlogs that are a direct consequence of the pandemic.' Despite uncertainty regarding future patterns of COVID transmission and the resulting demands on the NHS, there is recognition of the need to continue to increase capacity and resilience to meet the full range of people's heath and care needs.

Once again, the importance of 'mak[ing] the most effective use of the resources available to us across health and social care, and ensure reducing inequalities, is highlighted (p4). Listed as the first of the identified priorities is the need to 'Invest in our workforce – with more people and new ways of working' (p8). This incorporates inspiring, empowering and enabling the delivery of 'high quality care in the most effective and efficient way', 'expanding advanced clinical practitioners'.

CQC Trust-wide Well-led Inspection Framework

The CQC is the independent regulator of health and social care in England. Through their monitoring, inspection and regulation of services, the CQC ensures that services provide people with safe, effective, compassionate and high-quality care. It also encourages services to improve. The CQC Trust-wide Well-led Inspection Framework includes:

- Key line of enquiry: W8 - Are there robust systems and processes for learning, continuous improvement and innovation?
- Most specifically, W8.1 - In what ways do leaders and staff strive for continuous learning, improvement and innovation? Does this include participating in appropriate research projects and recognised accreditation schemes? (p24)

Trust level guidance is provided (see Appendix 1), which includes, for example:

- How do senior leaders support internal investigators initiating and managing clinical studies?
- Does the vision and strategy incorporate plans for supporting clinical research activity as a key contributor to best patient care?

AHP Strategy for England 2022-2027: AHPs Deliver

The Chief Allied Health Professions Officer's (2022) Allied Health Professions (AHPs) Strategy for England – AHPs Deliver set out 'collective priorities and commitments to improve outcomes for people, carers, communities, and populations' (p14). 'AHPs evaluate, improve, and evidence the impact of their contribution' is one of the priorities identified for meeting the challenges of changing care needs. Delivery of 'evidence-based/informed practice to address unexplained variances in service quality and efficiency' is identified as a measure of impact (p14).

Building on the success of the predecessor strategy, AHPs into Action, one of the four enhanced foundations or key enablers of AHPs Deliver is 'AHPs commit to research, innovation, and evaluation' (p19). Research and innovation are identified as key components of safe evidenced-based practice, informing service design, clinical reasoning and shared decision-making with the people and communities AHPs work alongside. Readers are explicitly directed to the HEE (2022) AHP Research and Innovation Strategy for England. It is noted that '[a]ny system's resources are finite and the AHP community needs to ensure that the use of available resources is maximised to ensure high-quality, effective and efficient services, with balanced resources, high staff satisfaction and good retention' (p25).

HEE (2022) AHP Research and Innovation Strategy for England

The HEE (2022) AHP Research and Innovation Strategy for England provides a 'national reference statement that supports the research and innovation agenda for all AHPs' regardless of their career stage, employment sector or job role. Driven by 'recognition of an imperative need to accelerate the pace of growth, stability and sustainability of our collective AHP research and innovation community' (p5), it is intended to '… identify high level strategic aims for a transformational change in AHP research and innovation reputation, influence and impact on services' (p4). Suzanne Rastrick, Chief

Allied Health Professions Officer for England, notes in her foreword that 'Research and innovation is key to ensuring safe evidenced based practice to support the people who access our services.'

The Strategy centres on four interdependent and equally important domains essential to achieving transformational impact and sustainable change:

1. The **Capacity** and engagement of the AHP workforce to implement research and innovation in practice;
2. The **Capability** of individuals to undertake and achieve excellence in research and innovation activities, roles, careers and leadership;
3. A **Context** within which AHPs have equitable access to sustainable support, infrastructures and investment for research and innovation;
4. A **Culture** within which AHP perceptions and expectations of professional identities and roles embrace the idea that "research (and innovation) is everybody's business".

The strategic vision is articulated within three distinctive strands or vision statements, each of which is supported by strategic aims (see Appendix 1):

1. **Transformation** of AHP professional identities, culture and roles.
2. Delivery of **excellence** in evidence-based Allied Health practice.
3. National strategic research agendas and priorities are explicitly **inclusive** of Allied Health research and innovation.

POSITIVE EXAMPLES

There are a range of positive and inspiring examples of how supporting and enabling AHP research engagement and careers has in turn supported service developments and enhanced the outcomes and experiences of those accessing services. For example:

On the NIHR website, paediatric physiotherapist Adam Galloway outlines how a Pre-Doctoral Clinical Academic Fellowship allowed him to develop a research career while continuing his clinical work.

Also on the NIHR website, oncology dietician Lindsey Allan discusses her motivations, inspirations and the ups and downs of her first experience as a principal investigator, which was supported by NIHR Clinical Research Network Kent, Surrey and Sussex Greenshoots funding.

The Stroke Association funded a Post-doctoral Fellowship for speech and language therapist Dr Claire Mitchell. Her research focuses on speech recovery after stroke, and she discusses of her fellowship in a video on the Stroke Association website.

The Pre-doctoral Clinical Academic Fellowship awarded to occupational therapist, Jennifer Crow, is also briefly outlined on the Stroke Association website.

Versus Arthritis funded a project lead by podiatrist Professor Catherine Bowen to develop rheumatology internships for UK-based healthcare professionals, to build research capability and capacity in the field and improve clinical practise for people living with musculoskeletal disease.

Associated with the HEE (2022) AHP Research and Innovation Strategy for England are four case studies outlining local actions (on varying scales) to facilitate AHP research engagement and careers. Having clicked on the above link, scroll down to access them.

Case studies

Formation of the Nottingham Joint Research Office	+
Commissioning of new substantive AHP Professorial posts	+
Developing a Clinical Collective Research Resource	+
Mapping the AHP research workforce across Yorkshire ICS partners	+

DATA

The majority of the following data has been provided by the NIHR Academy Evaluation, Business Intelligence and Impact Team. It indicates a trajectory of growth in the number of AHPs applying for and successfully securing NIHR funding, although figures for 2021 have declined which *may* be related to the impact of the global pandemic. The data also indicate an overall upward trajectory in the value of NIHR funding awarded to AHPs over the past decade.

However, the data also indicates that success in securing NIHR funding is not evenly distributed across the 14 individual professions that make up the collective AHPs. There is a limit on the level of protected characteristics data recorded by the NIHR (age, sex, ethnicity and race, and disability) that can be shared while protecting the identity of individuals, so the figures presented below have been aggregated. Following completion of their awards, the majority of AHPs are employed in academic or clinical academic roles, with only a small proportion employed in clinical roles only.

It should be noted that for the NIHR-provided data:

1. Application numbers provided in all charts and tables include all applications submitted, including those that did not pass eligibility checking.
2. Success rates calculated as (Awards/Eligible Applications)*100.
3. The amount of funding requested is not available for a significant number of applications and awards. Care must be taken when comparing requested funding with committed funding.

Midwifery and Nursing data is also provided for comparison.

HEE/NIHR ICA Internships and Bridging awards are managed by HEE local teams (in partnership with commissioned HEIs for Internships). Data has been provided by the HEE Research Programme Support Manager. There was a change in contracts two years ago, which limits the available data to 2020-21 and 2021-22. It demonstrates a marked difference across disciplines in successfully securing internship and bridging opportunities, with some consistency patterns across the pathways. There are marked differences in total number of awards across internships, pre- and post-doctoral pathways, and variance in the number of awards made in each region.

NIHR AHP applications, awards and success rates across programmes/awards

Applications, Awards and Success Rate

NIHR AHP applications, awards and success rates by programme and scheme

Programme, Scheme	Round Year 2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Grand Total
HEE/NIHR Integrated Clinical Academic Programme											
Applications, n	45	42	45	50	48	60	142	132	106	106	776
Awards, n	9	15	13	18	12	22	43	39	43	40	254
Success Rate, %	20%	36%	29%	36%	25%	37%	30%	30%	41%	38%	33%
NIHR Fellowships											
Applications, n	39	23	26	40	29	35	31	21	68	23	335
Awards, n	11	3	5	8	6	5	4	3	13	9	67
Success Rate, %	28%	13%	19%	21%	21%	15%	13%	14%	19%	39%	20%
NIHR Professorships											
Applications, n	3				2	1	1	2	1	1	11
Awards, n	1				0	0	0	0	0	0	1
Success Rate, %	33%				0%	0%	0%	0%	0%	0%	9%
Total Applications, n	**87**	**65**	**71**	**90**	**79**	**96**	**174**	**155**	**175**	**130**	**1122**
Total Awards, n	**21**	**18**	**18**	**26**	**18**	**27**	**47**	**42**	**56**	**49**	**322**
Total Success Rate, %	**24%**	**28%**	**25%**	**29%**	**23%**	**28%**	**27%**	**27%**	**32%**	**38%**	**29%**

NIHR Midwifery applications, awards and success rates by programme and scheme

Programme, Scheme	Round Year										
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Grand Total
HEE/NIHR Integrated Clinical Academic Programme											
Applications, n	10	4	5	8	3	6	16	13	10	9	84
Awards, n	2	1	0	1	0	0	5	6	3	4	22
Success Rate, %	20%	25%	0%	13%	0%	0%	33%	46%	30%	44%	27%
NIHR Fellowships											
Applications, n	4	1	2	2	2	2	4	3	11	3	34
Awards, n	3	0	1	1	0	1	0	0	7	0	13
Success Rate, %	75%	0%	50%	50%	0%	50%	0%	0%	64%	0%	38%
Total Applications, n	**14**	**5**	**7**	**10**	**5**	**8**	**20**	**16**	**21**	**12**	**118**
Total Awards, n	**5**	**1**	**1**	**2**	**0**	**1**	**5**	**6**	**10**	**4**	**35**
Total Success Rate, %	**36%**	**20%**	**14%**	**20%**	**0%**	**13%**	**26%**	**38%**	**48%**	**33%**	**30%**

NIHR Nursing applications, awards and success rates by programme and scheme

Programme, Scheme	Round Year										
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Grand Total
HEE/NIHR Integrated Clinical Academic Programme											
Applications, n	30	33	34	25	25	20	61	34	44	50	356
Awards, n	7	11	5	8	4	5	14	13	15	17	99
Success Rate, %	23%	33%	15%	32%	17%	25%	23%	38%	34%	34%	28%
NIHR Fellowships											
Applications, n	34	24	13	20	19	21	14	9	28	18	200
Awards, n	4	1	0	5	3	0	3	1	3	3	23
Success Rate, %	12%	4%	0%	25%	16%	0%	21%	11%	11%	17%	12%
NIHR Professorships											
Applications, n	2		2		1	2	1		2	1	11
Awards, n	0		0		0	0	0		0	0	0
Success Rate, %	0%		0%		0%	0%	0%		0%	0%	0%
Total Applications, n	**66**	**57**	**49**	**45**	**45**	**43**	**76**	**43**	**74**	**69**	**567**
Total Awards, n	**11**	**12**	**5**	**13**	**7**	**5**	**17**	**14**	**18**	**20**	**122**
Total Success Rate, %	**17%**	**21%**	**10%**	**29%**	**16%**	**12%**	**22%**	**33%**	**25%**	**29%**	**22%**

NIHR funding awarded to NMAHPs by year
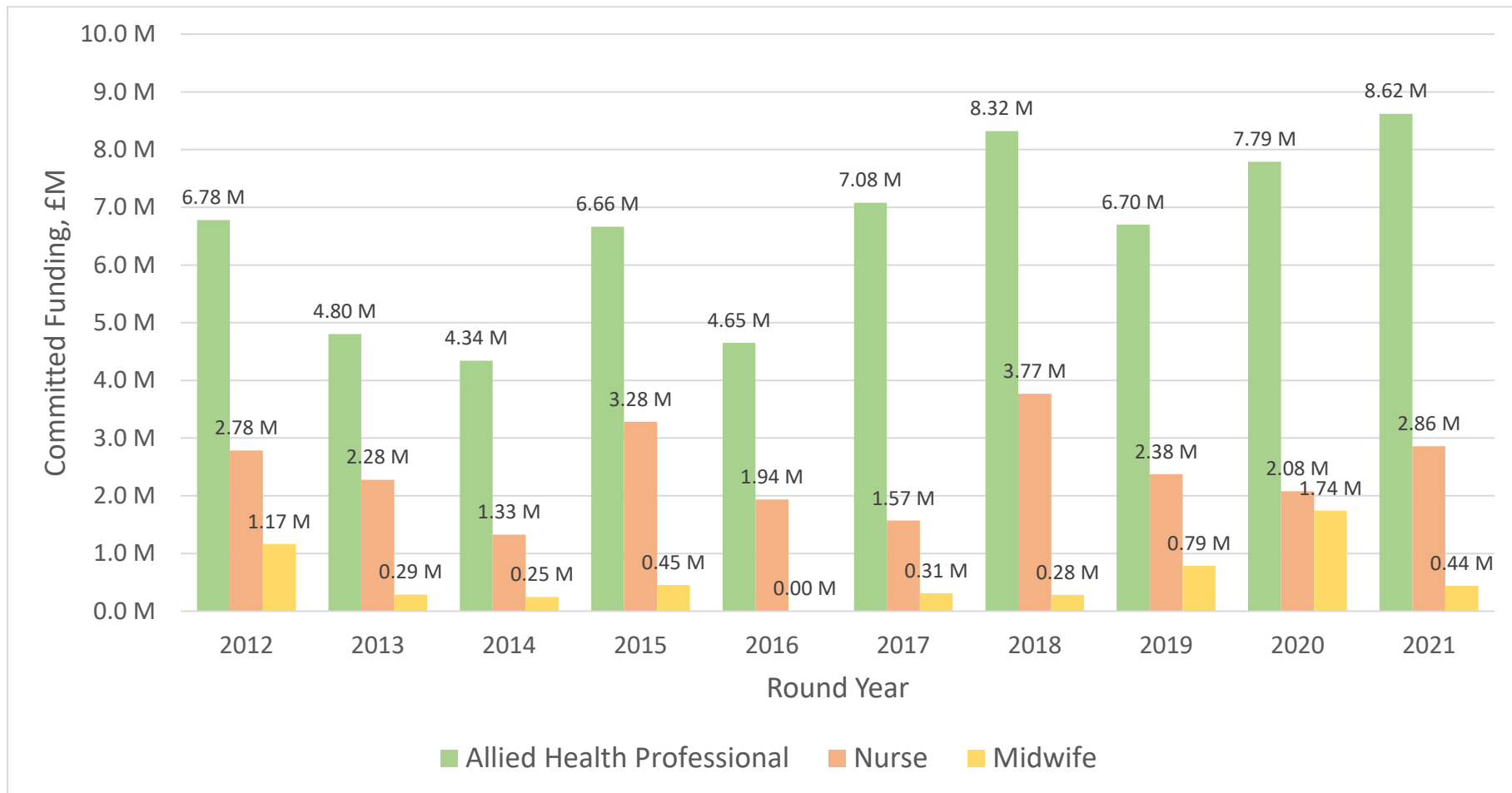
Includes funding associated with: HEE/NIHR Clinical Doctoral Fellowships, Clinical Lectureships, Doctoral Clinical and Practitioner Academic Fellowships, ICA Advanced Clinical and Practitioner Academic Fellowships, Pre-doc Clinical Academic Fellowships, Senior Clinical Lectureships, and NIHR Advanced Fellowships, Clinical Development Fellowships, Clinical Trials Fellowships, Development and Skills Enhancement Awards, Doctoral Fellowships, Knowledge Mobilisation Research Fellowships, Pre - and Post-doc Fellowships, Pre-doc Local Authority Fellowship Schemes, Research Professorships, Short Placement Award for Research Collaborations and Patient Safety and Service Quality Research Fellowships

NIHR applications, awards and success rates by NMAHP professional background

Profession	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Grand Total
Art Therapist											
Applications, n		1	1	2	2	2	1	1	4	1	15
Awards, n		0	1	0	1	0	0	0	1	0	3
Success Rate, %		0%	100%	0%	50%	0%	0%	0%	25%	0%	20%
Chiropodist/Podiatrist											
Applications, n	2	3	3	6	1	2	7	6	7	6	43
Awards, n	1	2	1	5	1	0	2	1	0	4	17
Success Rate, %	50%	67%	33%	83%	100%	0%	29%	17%	0%	67%	40%
Dietitian											
Applications, n	12	8	11	17	10	9	16	15	16	17	131
Awards, n	5	1	2	3	3	0	4	6	4	5	33
Success Rate, %	42%	13%	18%	18%	30%	0%	25%	40%	25%	29%	25%
Drama Therapist											
Applications, n							1	1	1		3
Awards, n							0	0	0		0
Success Rate, %							0%	0%	0%		0%
Music Therapist											
Applications, n	1	1	1			2					5
Awards, n	0	0	1			1					2
Success Rate, %	0%	0%	100%			50%					40%
Occupational Therapist											
Applications, n	15	5	9	6	9	7	18	18	14	8	109
Awards, n	3	2	3	2	1	2	4	7	3	1	28
Success Rate, %	20%	40%	33%	33%	11%	29%	22%	39%	21%	13%	26%
Operating Department Practitioner											
Applications, n							1		1		2
Awards, n							0		0		0
Success Rate, %							0%		0%		0%

Orthoptist

Applications, n	4	3	1	3	3	1	3	5		3	26
Awards, n	1	1	0	1	1	0	0	2		0	6
Success Rate, %	25%	33%	0%	33%	33%	0%	0%	40%		0%	23%

Paramedic

Applications, n	2			1		4	9	6	6	5	33
Awards, n	1			0		0	3	1	2	2	9
Success Rate, %	50%			0%		0%	33%	17%	33%	40%	27%

Physiotherapist

Applications, n	33	28	33	43	40	42	76	69	86	61	511
Awards, n	7	8	9	12	9	18	20	16	32	25	156
Success Rate, %	21%	29%	27%	29%	23%	43%	26%	23%	37%	41%	31%

Prosthetist / Orthotist

Applications, n		1					2	2	4		9
Awards, n		0					0	0	2		2
Success Rate, %		0%					0%	0%	50%		22%

Radiographer (Diagnostic)

Applications, n	7	3	2	2	1	5	10	6	3	7	46
Awards, n	1	1	0	0	0	1	1	1	0	2	7
Success Rate, %	14%	33%	0%	0%	0%	20%	10%	17%	0%	29%	15%

Radiographer (Therapeutic)

Applications, n						3	9	4	2	5	2	25
Awards, n						0	1	2	0	1	1	5
Success Rate, %						0%	11%	50%	0%	20%	50%	21%

Speech and Language Therapist

Applications, n	11	12	10	10	10	13	26	23	28	19	162
Awards, n	2	3	1	3	2	4	11	8	11	9	54
Success Rate, %	18%	25%	10%	30%	20%	31%	42%	35%	39%	47%	33%

Nurse

Applications, n	66	57	49	45	45	43	76	43	74	69	567
Awards, n	11	12	5	13	7	5	17	14	18	20	122
Success Rate, %	17%	21%	10%	29%	16%	12%	22%	33%	25%	29%	22%

Midwife											
Applications, n	14	5	7	10	5	8	19	16	20	12	116
Awards, n	5	1	1	2	0	1	5	6	9	4	34
Success Rate, %	36%	20%	14%	20%	0%	13%	28%	38%	45%	33%	30%
Both registered nurse and midwife											
Applications, n							1		1		2
Awards, n							0		1		1
Success Rate, %							0%		100%		50%
Total Applications, n	**167**	**127**	**127**	**145**	**129**	**147**	**270**	**213**	**270**	**210**	**1805**
Total Awards, n	**37**	**31**	**24**	**41**	**25**	**33**	**69**	**62**	**84**	**73**	**479**
Total Success Rate, %	**22%**	**24%**	**19%**	**28%**	**20%**	**23%**	**26%**	**29%**	**31%**	**35%**	**27%**

NIHR AHP equality, diversity and inclusion data

The NIHR Academy Evaluation, Business Intelligence and Impact Team have provided aggregated EDI data because the numbers if broken down by group risk identification of individuals. They have shared data for 2021, which is the first complete year of data collection from applicants. The NIHR currently collect data related to age, sex, ethnicity and race, and disability, and do not report on groups of less than 10.

The breakdown of AHP applicants in 2021 by ten year age band is based on applicant age at funding decision date.

Sex: 67% of AHP applicants in 2021 were female

Ethnicity and Race: 85% of AHP applicants in 2021 were white

Disability: The majority of AHP applicants in 2021 did not have a disability.

Age Band	%
20-29	11%
30-39	34%
40-49	36%
50-59	12%
No Value	8%
Total	**100%**

NIHR AHP award holder current roles (all awards ending between 2015-2021)

NIHR Academy uses Researchfish to follow up on the individuals who are in receipt of personal awards. The data in the table below indicates what percentage of those who have completed their awards have gone on to pursue Academic or Clinical Academic, Clinical or other roles.

Programme, Current Role	Award Holders, n	Award Holders, %
HEE/NIHR Integrated Clinical Academic Programme		
Academic/Clinical Academic	75	58%
Clinical post	38	29%
Other	1	1%
Unknown	16	12%
NIHR Fellowships		
Academic/Clinical Academic	39	83%
Clinical post	2	4%
Other	3	6%
Unknown	3	6%
NIHR Professorships		
Academic/Clinical Academic	2	100%
Clinical post		0%
Other		0%
Unknown		0%
Grand Total	**179**	**100%**

NIHR AHP applications, awards and success rates by contracting organisation type

Organisation Type, Organisation	Applications, n	Awards, n	Success Rate, %
NHS Trust	782	258	33%
Higher Education Institute	638	137	22%
Other	21	2	10%
Charity	6	2	33%
Other NHS Organisation	5	1	20%
Local Authority	2	2	100%
Research Institute	1	0	0%
Social Enterprise Company	1	1	100%
Clinical Commissioning Group	1	1	100%
Grand Total	**1457**	**404**	**28%**

NIHR AHP applications, awards and success rates by contracting organisation region

Region, Organisation	Applications, n	Awards, n	Success Rate, %
London	430	139	32%
Yorkshire and The Humber	176	54	31%
North West	138	27	20%
South Central	121	26	21%
West Midlands	111	33	30%
South West	107	32	30%
East Midlands	105	22	21%
North East	91	32	35%
South East Coast	81	18	22%
East of England	79	21	27%
Wales	9	0	0%
Northern Ireland	8	0	0%
Scotland	1	0	0%
Grand Total	**1457**	**404**	**28%**

Nov/Dec 2022

AHP engagement within NIHR Infrastructure 2021/22

NIHR Infrastructure comprises: 20 Biomedical Research Centres (BRCs); 15 Applied Research Collaborations (ARCs), 15 Health Protection Research Units (HPRUs), 3 Public Safety Translational Research Centres (PSTRCs) and 3 Schools of: Social Care Research (SSCR), Public Health Research (SPHR), and Primary Care Research (SPCR). NIHR infrastructure and schools have a remit to build research capacity which they fulfil by investing in individuals' research careers across professional backgrounds and career stage.

Professional Background									
Centre	Total No of AHPs	Chiropodists / Podiatrists	Dieticians	Occupational Therapists	Operating Dept Practitioners	Orthoptists	Orthotists	Physiotherapists	Radiographers
Applied Research Collaborations	64	1	7	18	1	1	1	32	3
Biomedical Research Centres	37	0	9	4	3	0	0	16	5
Schools	2*	0	1	0	0	0	0	0	0
Total	**103**	**1**	**17**	**22**	**4**	**1**	**1**	**48**	**8**

* identified as an AHP, but discipline not specified.   NB: data not available for SSCR

Award levels of AHPs engaged within NIHR Infrastructure 2021/22

Award Level						
Centre	Total No of AHPs	PhD	Post-Doc	Pre-Doc	MD	MRES	Other
Applied Research Collaborations	64	27	3	0	0	0	34
Biomedical Research Centres	37	18	6	4	1*	2	6
Schools	2	0	2	0	0	0	0
Total	**103**	**45**	**11**	**4**	**1**	**2**	**40**

* recorded as an AHP   NB: data not available for SSCR

HEE Integrated Clinical and Practitioner Academic (ICA) Internships, Pre- and Post-doctoral Awards 2020-22

	Internship Programme	Pre-doctoral bridging award	Post-doctoral bridging award
	2020-22	2020-22	2020-22
AHP Professions:			
Art therapist	1	0	0
Podiatrist/Chiropodist	3	0	1
Dietician	9	7	2
Occupational therapist	19	5	5
Orthoptist	2	0	0
Orthotist and Prosthetist	0	0	1
Paramedic	5	1	0
Physiotherapist	53	13	5
Radiographer (diagnostic and therapeutic)	5	0	2
Speech and language therapist	22	10	2
Drama therapist	1	0	0
Music therapist	0	1	0
Operating Department Practitioner	2	0	0
Osteopath	0	0	0
Nurse and Midwife:			
Nurse	44	24	10
Midwife	6	2	1
Totals	**172**	**63**	**29**

NB: Figures incorporated from Wessex include those at pre-doctoral bridging stage within the internship figures, as the internship and pre-doctoral provision is run as a mixed cohort.

APPENDIX 1 – Disciplinary nuances noted via professional bodies

British Association of Music Therapists

BAMT is a small professional body with limited human and financial resources. It is therefore limited in its ability to encourage and support research engagement amongst its members. Music therapists in clinical academic or active research roles try to support their colleagues by highlighting opportunities which BAMT readily communicates, but these individuals are limited in number and have competing work priorities to contend with. The Music Therapy Charity is the only UK funding body that specifically funds music therapy research, with two annual seed-corn funding rounds.

There is a recognised appetite for research within the profession, with a high proportion of registrants holding PhDs. The opportunities that do exist for music therapists to pursue research are better within the NHS than outside it, with the non-medical NIHR pathway noted to work well. However, there are particular challenges faced by the profession which primarily hails from Arts backgrounds. The fundamental research training received in undergraduate degrees is of a different nature to the *health* research therapists subsequently move into. During the pre-registration MSc required to register with the HCPC, dissertations tend to focus on a practice-based case study or a very small qualitative study. There is often quite a skills gap to bridge to enable music therapists to step into health service research.

Greater awareness within the profession is required regarding where and how to access research funding. However, as practitioners are often part-time and working in very isolated circumstances this can be difficult to achieve. Access to mentorship and HEIs/academic support and guidance is very limited (there being only seven pre-registration education providers in the UK). Confidence is a challenge, particularly in relation to learning how to speak the language of health research. There are also significant career pathway issues for music therapists with doctorates. Many leave academia as a result of the unsustainable insecurity of successive fixed-term contracts. On returning to practice, there is much less opportunity to engage with research.

British Association of Prosthetists and Orthotists

The number of prosthetists and orthotists (P&O) registered with the HCPC is approximately 1100 and approximately 50% are members of the British Association of Prosthetists and Orthotists known as BAPO. The small size of the P&O workforce nationally has a significant impact on individual capacity to engage with research and research-related careers.

BAPO reports that a significant proportion of the P&O workforce are employed by commercial clinical companies who provide clinical services to the NHS, with an additional small number working in private practice. While some of the large commercial providers have research and innovation departments, they tend to focus on product development rather than applied research in the clinical setting. Clinicians working for both commercial providers and the NHS directly often encounter an unwillingness or inability to be released to undertake research activities due to workforce capacity challenges, making backfill impossible to secure. Potential opportunities are then difficult to realise. Additionally, clinical services, both commercial and NHS, are very often only commissioned with an eye to the clinical pillar, so all other pillars are neglected, with no funding in the commissioning model to support research activities. Where possible, small local research projects are undertaken,

mainly taking the form of clinical audit type activities though there a steady number of P&O clinicians undertaking post-graduate studies and conducting research as part of that. Evidencing research activities and findings is encouraged by BAPO but publication in peer reviewed journals if often not completed.

While orthotists and prosthetists are dual trained in their pre-registration programmes, BAPO report that the majority of their members opt for one area or the other to specialise in when they enter practice; a small proportion go on to dual practice. The biggest workforce issues are encountered in orthotics where demand is much greater nationally. In such a small profession individuals have few P&O research active role models and are often isolated from other prosthetists and orthotists so may be unaware of the existence of research-related career options and opportunities. This contributes to a lack of confidence in the workforce to pursue research applications and activities. This specifically is an area BAPO are working on with the creation of a research hub, mentorship program and regular updates and articles in their newsletters and journal.

Further, BAPO also highlight the significant impact of workforce retention challenges on service delivery and research engagement. A culture of 10 patient-facing sessions per week leaves little, if any, space for CPD or research. A recent workforce survey indicated that reasons for leaving the profession are often associated with work-life balance and lack of developmental opportunities. With only two undergraduate entry programmes to the profession it has been challenging to build workforce capacity to (a) meet current demand and (b) allow release for CPD and/or research. However, recent efforts in this area have brought to fruition a third and forth entry programme in the last 2 years in the form of a graduate entry MSc at Keele University and an apprenticeship at the University of Derby. It is hoped these will help address some of the workforce capacity issues.

There is a recognised need to work in a multi-disciplinary way to support the research aspirations of prosthetists and orthotists, and to learn from disciplines such as medicine and nursing where clinical academic career pathways are firmly embedded. BAPO consider that exploiting the possibilities of joint clinical academic roles (rather than two part-time contracts) is considered an approach that would aid both retention and research engagement across the profession.

British Association of Dramatherapists

Dramatherapy is a small profession. It has a registered workforce of approximately 1,500 and four pre-registration MA programmes in the UK, with a fifth (a pre-reg MSc) commencing in Scotland in September 2022. The Chair of BADth is research focused and proactively promotes the research agenda. However, it is reported that there is currently a limited culture of research engagement in the profession and a limited evidence-base to draw upon. BADth has recently commissioned two systematic reviews which will be highly valuable, but there are recognised challenges around resourcing to enable this journey to continue.

The research content of pre-registration programmes is reportedly variable, with some academic staff having very limited research experience themselves. Limited research confidence and the limited culture of research engagement can make it difficult to identify and access mentors, research networks and supervisors from within the profession (there being few dramatherapists with doctorates).

Dramatherapists often work two part-time roles in tandem to achieve fulltime hours. Approximately 40% work in schools and approximately 38% work in healthcare, and on

average they are employed to work 28hrs/week/employer. With part-time hours for each employer, it can be difficult to negotiate release to pursue research. There can be a lack of supporting structures within the NHS for the arts therapist broadly, and dramatherapists can be asked to offer 2-4 years' experience to be eligible for a role in the NHS. This, in turn, can limit early access to HEE/NIHR ICA pathways. These pathways offer valuable opportunities, but are very competitive which can be extremely challenging when coupled with a lack of networks, mentoring and supervision. More broadly, access to PhD opportunities that are suitable for dramatherapists is limited. In some cases, there can also be an assumption that a substantial number of years' experience in practice is a necessary pre-requisite to considering doctoral studies.

British Dietetics Association

The BDA notes that the well-recognised barriers to pursuing research-related careers also apply to dieticians. While relatively successful at PhD level, the profession faces difficulties (e.g. management support, clinical pressures, etc.) with progressing research careers at a post-doctoral level. Dietetics is a small profession with a small number of practitioners with post-doc expertise to act as role models and research supervisors and generally support a research culture within the profession. A proportion of post-doc dieticians move into academia which largely takes them out of not only clinical circles but also research, as their time and energy is committed to gaining pedagogical qualifications, learning to navigate a whole new organisational culture and supporting students through practice placements. A proliferation of new pre-registration dietetic programmes is very positive for the profession but must be staffed and dietitians with PhDs are prime targets for recruitment. Split clinical academic posts work very well in some places (e.g. London teaching hospitals, Birmingham, Bristol, Southampton) but the BDA notes that pressure on individuals in those posts is immense.

British and Irish Orthoptic Society

In addition to well-recognised barriers and challenges to pursing a research-related career, BIOS note that being a comparatively smaller profession than some of the other AHPs means that their benchmark for getting orthoptists into research careers is likely to be lower.

BIOS note that while new graduates have more confidence and motivation thanks to the research training they have experienced in their pre-registration programmes, they are not always encouraged to undertake research when they start their clinical roles due to a national workforce shortage and lack of time. Over time they may feel that they have deskilled in research, impacting their confidence to undertake research later.

Auditing is seen as the starting point for getting back into research activity. While it is encouraged, in reality this isn't always a monitored requirement in most orthoptists' roles. BIOS tries to encourage their members to identify where they can undertake audits, and if audits are being led by other members of the MDT to put themselves forward and support this work.

BIOS also encourages members to get involved in any research projects being undertaken in their department (e.g. by helping with data collection and shadowing the analysis) to help build familiarity with research processes. They also offer writing clinics/workshops and at next year's conference will work to support members with getting research off the ground. However, how this is perceived back in their department can be the barrier.

If orthoptists do have a desire to pursue a research career, BIOS offers support and and can assign mentors that are regularly advertised in newsletters but infrequently taken up. BIOS

also notes that when their members achieve post-registration degree/award, they may have limited scope to utilise the skills they have developed when they return to practice.

Chartered Society of Physiotherapy

In addition to the already well-documented barriers, the CSP notes that geographical location can have an impact on support for and access to research-related funding and developmental opportunities. Even when physiotherapists are successful in winning funding that incorporates backfill, there are often significant challenges around recruitment to that backfill position. This relates to (a) trouble recruiting to an equivalent skill-level for the position, (b) trust HR systems lacking capacity or taking too long in relation to funding timelines, and (c) the short-term nature of backfill roles being unattractive to potential candidates.

Lack of access to research mentorship, coaching and support to navigate networks is noted to be particularly challenging for those physiotherapists with protected characteristics.

Feedback from members paints a strong picture of the need to choose between family and 'life' and a research career. The implication being that it is very difficult to embrace all three elements. Feedback also suggests that those who do pursue a career that embraces practice and research have to 'fight tooth and nail' for it, and that existing systems are a barrier in themselves.

The commissioning and contracting of services is noted to have an important role in this regard. Research and innovation needs to be explicitly included in service delivery contracts. The principle of 'what gets measured gets done' is relevant here, with behaviour expected to follow the money. Research and improvement needs valued and funded by commissioners.

College of Operating Department Practitioners

Research is emerging for the ODP profession. It is a key priority for the profession and is growing, and is best understood in the context of the history of the profession.

ODP has been delivered in HEIs since 2002. Entry qualifications were initially a DipHE, with a gradual transition to BSc since 2011. There are significant numbers of registrants who experienced limited research in their pre-registration curriculum and therefore a need for development of both confidence and research skills. Within current curricula there are examples of primary research projects and those that are restricted to literature projects, which are nevertheless considered to still prepare registrants for onward study.

CODP are encouraged to see more ODPs accessing Masters level study, however doctoral numbers are still relatively low. This may be compounded by a limited number of ODP registrants holding doctorates themselves, which impacts supervision capacity and visibility of role models.

College of Paramedics

The CoP report that there are 13 UK ambulance services who currently are the largest employer of paramedics in the UK. All of the UK Ambulance Trusts currently have a research department or grouping who provide representation on the National Ambulance Research Steering Group. This group collaborate to develop and distribute research studies around the UK. Each ambulance Trust's research department comprises a small number of full time staff focusing on research activities, plus a fluctuating number of research paramedics who are 'study specific' and are usually on fractional, fixed term contracts to support specific funded studies, often with contracts split between research and practice. A few hospital-based paramedics have reported difficulty tapping into, or do

not tap into, hospital-based Trust research services and systems, and are often not recognised for their ability to contribute to research agendas. Approximately 30% of registered paramedics work outside the ambulance service and/or the NHS, which can limit their access to and eligibility for established research development and funding pathways, although this is improving.

CoP has invested in developing a Research Centre to help provide resources and access to support not otherwise available via their members' employers. This includes developing networks, podcasts examining published evidence, drop-in research clinics, monthly research webinars, a web-based international register of all research going on relevant to the profession (spanning student projects to major trials) and ongoing provision of three small research grants per annum. The Research Centre fulfils a research advisory service linking members into known pathways of development that exist already within a national framework. In addition the CoP has collaborated with universities to provide some full-time PhD stipends in the past few years and they are looking to expand these. The work of the Centre is led by a Head of Research on a 0.2 FTE appointment who is supported by volunteer research-active paramedics, the number of which is growing annually, as are the number of paramedics completing their doctoral studies.

An increasing scope of clinical practice and opportunities of working in different roles and environments, combined with challenges in recruitment and retention can make it challenging for ambulance services to fully cover operational ambulance shifts on a day-to-day basis. This can be a barrier to releasing staff for research as there is a lack of paramedics to backfill any vacancies that releasing staff to non-clinical duties might cause. Despite the numbers being limited, there are more paramedics wanting to work in research than there are posts available. Suitable roles often do not exist, or are based on fixed-term funding. Opportunities are very difficult to both create and navigate. New challenges are arising as more paramedics move into research. Growing numbers of senior clinicians with recent doctorates are experiencing some tensions linked to the fact that they may be experienced clinicians but possibly less experienced researchers. This can result in mismatched expectations relating particularly to pay and conditions, increasing frustration and the loss of experienced staff from clinical services into academia or education (only) roles or back in to full-time clinical roles. This phenomenon is not unique to the paramedic profession and CoP highlight the need for NMAHPS and their representative organisations to ensure that there are clear career trajectories for people wanting to specialise in research.

Progress has and is being made. However there is work to do to effect cultural change that normalises engagement with the research pillar of practice at all levels, and to create more opportunities in research such as joint clinical academic appointments that offer job and financial security. It should not be necessary for experienced staff to take a pay-cut and move to a succession of fixed-term contracts to do research. In theory, career trajectories do exist for paramedics but in practice there simply are not yet the number and/or variety of posts available. This must be addressed to ensure retention of research focused staff at all levels wanting to work in clinical environments.

National Council for Osteopathic Research

Interest in research has grown amongst osteopaths as the profession has moved towards Masters level qualification and research being embedded in the pre-registration curriculum. The creation of the National Council for Osteopathic Research (NCOR) in 2004 brought together all key stakeholders in the osteopathic profession to create and deliver some key strategic aims. This has included some initial profiling work using standardised data collection, research commissioned on matters relating to consent and patients' expectations. Capacity is steadily increasing as more osteopaths undertake PhDs and move into postdoctoral research roles. Opportunities in postdoctoral roles are very limited as most

osteopaths practise in the private sector, although the number of osteopaths working in the NHS is growing. Research career opportunities for osteopaths working outside of the NHS is an unexplored area but would benefit from attention and support.

Amongst practising osteopaths, their relationship with evidence is evolving. A report to the General Osteopathic Council on the 2020 Osteopathic Regulation Survey (McGivern et al., 2020) identified that "Osteopaths have become significantly more positive about evidence-based practice (Pro-evidence-based practice). For example, in 2020 50% agreed or strongly agreed that 'practising evidence-based osteopathy improves patient care', compared with 38% in 2014." That progress is very encouraging although there is still potential for further improvement.

Royal College of Occupational Therapists

Once again, RCOT recognises that all of the already well-documented barriers are encountered by occupational therapists. RCOT additionally notes issues related to:

1. Members not seeing research as integral to practice.
2. Lack of agency, powerlessness, somehow needing 'permission' to act and to embrace the notion that "I could make a difference".
3. Being a female dominated profession and the associated challenges of getting women's voices heard and women's roles in research. We know there are barriers to women applying for grants, funding and promotion, which may have been further exacerbated by the pandemic as illustrated by Davis et al (2022), and there is evidence that women achieve slower rates of career progression and experience higher rates of attrition (Jones, 2019).
4. Members work across a huge array of employers and employment contexts with widely varying levels of support for research career development.
5. Often being the only occupational therapist in a multi-professional research team, which can prove challenging when the OT perspective is poorly understood and/or when confidence is lacking.
6. Lack of visibility of / lack of positive role models from under-represented groups in local occupational therapy research environments and across the profession. RCOT acknowledges that it has work to do to better understand the experiences of minoritised members, including all protected characteristics and intersectionality between them to be able to provide effective support. Lack of visibility of / lack of positive role models from under-represented groups in local occupational therapy research environments and across the profession.
7. RCOT R&D Strategy 2019-2024 has a focus on enhancing the experiences and outcomes of the individuals, groups and communities accessing the evidence-informed services of occupational therapists in the UK but doesn't explicitly consider the diversity or experience of researchers themselves. This is something that RCOT plan to explicitly address when the strategy is reviewed.

Royal College of Podiatry

The common barriers that are well-documented, including lack of time, lack of management support, low levels of confidence and the absence of research mentorship and leadership apply to the members of RCPod. Additionally:

1. There are a large proportion of podiatrists working in independent practice who have difficulty accessing the mechanisms and infrastructure to undertake research, such as access to ethics committees and university peer support.
2. Despite a clear correlation between the presence of research podiatrists in multi-disciplinary teams resulting in successful research processes, there is now a focus

on clinical delivery as a priority which means that research podiatrists are not being supported in their roles

Royal College of Speech and Language Therapists

RCSLT gathered feedback from their members and reported the following:

1. Inconsistent support for research work, which peters out the further along the trajectory people go.
2. Related to the above, inability to fully integrate clinical specialist skills with specialist research skills after finishing, for example, a PhD. This is because practitioners are not given the environment to actually bring research and practice together, including the lack of availability of Advanced Clinical Practitioner roles which would enable this.
3. Reluctance to support with finding backfill for research work across levels (even if funding given).
4. Clinical work will always be prioritised.
5. Disparities in clinical areas, types of services (e.g. large hospital trusts versus smaller community teams) and internal research and development infrastructure including links with HEIs.

Importantly, RCSLT also highlight challenges that seem particularly pertinent to SLTs:

6. Being a small professional group (may be only SLT in a team or service, making backfill more difficult).
7. Being a profession that works in a very wide range of non-acute / non-NHS settings e.g. community services, learning disability services, education.
- Areas of SLT work can be more about symptoms which cut-across different diagnoses or disorders (e.g. dysphagia). This doesn't always fit within university groups, clinical research networks, NIHR funding calls or other funding streams (for example charities focused on one disorder e.g. Parkinson's).

Society and College of Radiographers

Therapeutic radiographers have generally been more successful than diagnostic radiographers in pursuing careers that combine research and practice. Research is recognised as integral to cancer care pathways and research funding is more readily available. It is more common for departments to employ a research (therapeutic) radiographer than not to. Diagnostic radiographers, however, are not perceived to be such integral contributors to the potentially multiple care pathways of patients who need their services. Research (diagnostic) radiographer roles are starting to emerge, but are much rarer.

Prior to the pandemic, clinical academic roles were becoming established in reporting radiography, although were less common in therapeutic radiography. There were some challenges noted regarding the recognition of the value and contribution of these roles in both contexts, particularly in relation to the roles of other disciplines within teams.

The pandemic has had a highly significant impact on the radiography profession, particularly diagnostic radiography. 97% of people going into hospital are referred to imaging services which is creating unsustainable pressures that are raising very real concerns about workforce retention and recruitment. Therapeutic radiography has been on the UK shortage occupations list since its inception. There is now considerable post-Covid backlog of patients presenting for treatment. Amongst them are an increase in younger patients, those with more advanced conditions, including those with consequences of not presenting earlier as a result of the pandemic. Clinicians are very challenged by the nature of their caseload and working in very difficult circumstances which are not conducive to research engagement.

SCoR notes that radiographers do not have quite the same level of autonomy as some other AHPs. There is a cultural shift required to recognise research as integral to practice. While job descriptions may include research engagement at an appropriate level, there can be a gap between this and what clinicians are expected or permitted to do in reality, even at consultant radiographer levels. Workplace cultures need to evolve to a position where they recognise the value of all four pillars of practice. Further, there needs to be a shift to ensure the equality of opportunities available across disciplines. For example, consultant radiographers and other non-medical consultants employed within the same trust, but also more broadly across the NHS.

APPENDIX 2 - Evidence

Baltruks and Callaghan (2018) Nursing, midwifery and allied health clinical academic research careers in the UK

This Council of Deans of Health (CoDH) report summarises the development of clinical academic research careers for NMAHPs in the four nations of the UK. Key challenges and opportunities are outlined (see Appendix 1) with the intention of making these careers more attractive and accessible, encouraging the creation of robust frameworks for clinical academic career pathways and ensuring their contribution to the quality of health and social care is recognised and promoted.

The development of NMAHP clinical academic research careers is important for both higher education institutions (which takes a leading role in educating the future and existing workforce) and the NHS. However, 'without appropriate funding, strategic support and commitment, and a clear career pathway from internship to senior clinical lectureship in all four nations, these career pathways are not likely to be sustainable or have significant impact' (p4).

Key points emerging from the report with particular relevance to the AHP Research Summit include:

- Clinical lectureships in HEIs represent early post-doc opportunities in which time is divided equally between academic commitments at an HEI and clinical commitments at a healthcare organisation. Positions are co-funded and provide an important step on the clinical academic career pathway, but funding is only available for physicians and dentists. (p3)
- Noted challenges to clinical academic careers for AHPs include (p8/9):
  - Lack of awareness amongst undergraduate students and early career researchers regarding how to start a clinical academic research career.
  - Lack of career structure and clarity about clinical academic career paths
  - Scarce job opportunities and unclear guidance.
  - Recruitment may be discouraged by predetermining the balance between the clinical and academic components.
  - Scarcity and highly competitive nature of funded NMAHP postdoctoral research positions in UK HEIs.
  - Comparative lack of research funding for healthcare professions other than medicine.
  - Clinical academic research career trajectories are potentially unstable and therefore less attractive compared with the stability of a clinical appointment or a full academic appointment.
  - Establishing joint posts (rather than 2x part-time posts) can be difficult due to challenges around employment conditions.
- Opportunities to promote clinical academic careers (p9-11):
  - Exposing pre-reg students to research – early awareness of the importance of research in healthcare; undertaking and understanding research; exposure to research products, protocols and researchers; opportunity to undertake placements in clinical research settings; improved career advice; access to case studies/exemplars; clear career pathways that increase the opportunity to progress straight to postgraduate study.

- Reserving post-registration MSc and PhD places for practicing clinicians to build cohort of highly qualified individuals with both clinical and research skills; availability of part-time PhD places; support from practice employers for agreed study time.
- Providing funding, mentorship and learning opportunities specifically for clinicians with doctorates to enable them to continue research in parallel with practice to consolidate and further develop skills in both areas.
- Flexibility in the balance of research and practice in clinical academic roles, including allowing individuals to move in and out of research, to be research active as co-investigators, to secure sessional academic appointments or hold joint contracts.
- Mentoring schemes with senior clinical academics.
- Large NMAHP research projects providing PhD and post-doctoral opportunities.
- Strong, targeted CPD programmes.
- Financial support from a range of funders (e.g. partnerships between HEIs, the health sector, central government and research funding bodies, inc. the charitable sector).
- Limited pre-allocation of training places and funding for specific disciplines and institutions to support smaller disciplines.
- Coordinated system for monitoring, evaluating and disseminating information about clinical academic careers.
- Engagement and commitment of key senior clinical staff is essential

Active promotion of the importance of research in practice, and practice engagement in HEIs

McCormack et al (2019) Becoming research confident

This CoDH report explores why, and how, pre-registration NMAHP students should and can be supported to become research-confident graduates, acknowledging that they represent the start of the pipeline of future NMAHP researchers.

'The future of safe, effective and innovative practice depends upon a professional workforce that is research confident. Research capacity building is required at all career levels but begins with pre-registration students being given an understanding of the role of research in assessing, evaluating, and improving practice' (p3).

'Helping students to learn about research … needs to address the whole continuum of research, from the identification and formulation of researchable questions, to applying and working with different methodologies, through to translating and utilising evidence in practice.' (p5)

'Educators in both academia and practice have a responsibility to provide and facilitate a culture of inquiry that enables the continuous development of practice for person-centred and evidence-informed services' (p7).

A series of recommendations for action is made on p18.

Baltruks et al (2020) The academic workforce in health faculties: Analysis of CoDH's academic staffing census 2019

This CoDH report draws on the data collected in 2019 from the Council's members about the profile of the academic healthcare workforce and patterns of recruitment and retention. It provides important insights into the characteristics of the workforce along with academic staff

recruitment challenges faced across the UK. Succession planning is vital for every faculty, school and department but is also a national task to ensure enough qualified academic staff are available across the varied disciplines in this sector.

'The ability to recruit academic staff with the right skills and experiences to provide the best education for nursing, midwifery and allied health students, is vital to increasing the number of students on these courses as envisaged by governments in England, Scotland, Northern Ireland and Wales. The demand for academic staff in these disciplines is likely to be exacerbated by the high proportion of academics who may retire in the near future. Succession planning needs to be a priority for the sector and may require increased investment into continuous professional development opportunities as well as early career research and teaching opportunities across the professions' (p33).

Three pages' worth of recommendations are provided (p34-36). They target a range of key stakeholders and cover the themes of: workforce strategy, recruitment, teaching and academic careers, clinical academic careers, diversity of academic staff and research.

Newington et al (2021) Qualitative systematic review and thematic synthesis exploring impacts of clinical academic activity by healthcare professionals outside medicine.

The work reported in this paper was developed to understand the range of impacts of non-medical clinical academic roles, including those undertaken by nurses, midwives, AHPs and other non-medical healthcare professionals. With the a priori addition of a theme for the impacts to the clinical academic, all the impacts extracted from the 20 included papers could be mapped to the VICTOR (making Visible the ImpaCT Of Research) framework resulting in the themes:

I. impacts for patients (inc. beneficial changed to service provision, wider access to evidence-based healthcare, improved patient/carer experience; a drive to improve own/teams practice);

II. impacts for service provision and workforce (e.g. improved care delivery; ability to translate research into practice and implement evidence);

III. impacts to research profile, culture and capacity (e.g. winning grant funding and other awards; access to research training and support; organisation-wide research engagement and support; shift toward research becoming embedded in practice; building collaborations and being seen as an attractive employer);

IV. economic impacts (e.g. external funding supporting dedicated time and bringing in additional monies; issues associated with the absence of funding and the repurposing of clinical budgets (e.g. staff vacancies); cost-savings and efficiencies

V. impacts on staff recruitment and retention (e.g. challenges of trying to balance research and practice in a dual role was a driver to jump one way or another; backfill challenges as above; successful strategies supporting clinical academics contributed to retention, job satisfaction, career progression and raising organisational research profile);

VI. impacts to knowledge exchange (e.g. formal dissemination; developing networks and collaborations aiding knowledge transfer);

VII. impacts to the clinical academic (e.g changes in attitude to clinical practice with greater reflection and questioning of established practice; development of research and leadership skills; largely negative financial implications (e.g. reduced salary and pension contributions) and challenges balancing the two aspects of the dual role).

A series of sub-themes described the content of each of the categories of impact and included perceived enablers of creating the desired impact and associated detrimental features. Those that crossed one or more of the main impact themes were suggested to be key areas for organisations to explore when seeking to support and increase academic activity among the non-medical disciplines (p16/17). They were:

a) the challenges and benefits of balancing clinical and academic roles (e.g. securing backfill to release clinical staff for research; developmental opportunities of stepping up into backfill roles; time constraints and lack of opportunity to use research skills; prioritisation of clinical duties; lack of funding and access to research-related resources);
b) the creation and implementation of new research evidence; and
c) the development of collaborations and networks.

Comer et al (2022) AHP's perceptions of research in the UK NHS: a survey of research capacity and culture.

This paper is based on a cross-sectional survey that targeted AHPs working in NHS health and social care settings across the UK. The validated Research Capacity and Culture tool was modified and distributed through research and professional networks. The study highlighted inadequacies in research skill/support at team level (p6), which may hinder successful integration of allied health research into everyday health and social care practice. Amongst the lowest organisational level scores was the availability of career pathways in research (p6).

Only 34% of the 3344 respondents reported that research-related activities were part of their role description. Of these, 79% had less than 25% of their time allocated for research-related activity. 18% of respondents reported that research engagement or activity was routinely discussed at their annual appraisal; 50% indicated it was only discussed if they brought it up or were currently involved in research, whilst 32% reported that research was not discussed at personal development appraisals on a routine basis (p8). At an individual level, key barriers to research engagement were 'other work roles take priority' (cited by 83% of respondents) and 'lack of time for research' (80%), while primary motivators were 'to develop skills' (80%) and 'increased job satisfaction' (63%) (p4). It is suggested that research capability may not translate readily into research engagement and activity, and that this is more likely the result of the lack of opportunity and time rather than lack of aspiration (p10).

Recommendations are offered at national strategic (e.g. increasing visibility of support and funding for AHP research), organisational (e.g. inclusion of AHP research roles and career pathways in research strategies), team (e.g. routine discussions about research engagement, including in appraisals) and individual (harness individual motivation, be proactive in identifying and seeking support to meet developmental needs) levels (p11/12).

Fothergill et al (2022) National evaluation of the advanced clinical practitioner role in England: a cross-sectional survey.

This paper reports the results of a national survey commissioned by Health Education England and conducted by Ipsos MORI in 2019, to inform the development and improvement of policies relating to advanced clinical practice in England. Three distinct

survey were distributed to advanced clinical practitioners, NHS provider organisations and trusts, and primary care organisations.

The results identified that only 11% of advanced practitioners in England were undertaking research within their roles, with only 0.5% of primary care trusts stating that research was a framework priority. This is despite the HEE ACP Framework explicitly identifying research engagement as a requirement at this level of practice (e.g. 4.1 – 'Critically engage in research activity, adhering to good research practice guidance, so that evidence-based strategies are developed and applied to enhance quality, safety, productivity and value for money'). The research pillar was noted as a neglected area of focus, with high workloads, limited time or resources and competing time pressures identified as contributing factors (p7/8).

Recommendations are made in relation to governance and regulations, education and support, and working in accordance with the HEE ACP Framework (p9). In this latter category, it is highlighted increased efforts are required to support ACPs with inter/national research engagement to support professional development and share best practice.

Strategic Research Alliance (2022) Understanding the value of a PhD for AHPs in the UK. End of project report.

(academic publication forthcoming)

Findings from this study, undertaken in early 2019, demonstrate the range of practical and critical thinking skills developed and utilised through doctoral study. However, the findings also highlight that the ability to utilise the full range of these skills, particularly in clinical contexts, can be restricted and is very much dependent on managerial and organisational support. The authors highlight that, although not without its challenges and some personal cost, where organisational processes, structures and culture are supportive, AHPs can flourish into research-related career pathways that allow them to remain closely involved in practice settings.

As a means of including the voices of AHPs trying to pursue careers combining research and practice into this briefing pack, some particularly powerful participant quotations drawn from the report have been included below. They illustrate the challenges AHPs encounter and the benefits accruing to organisations and services if they can successfully navigate a way through.

Benefits:

- "I now influence my team's way of thinking about what we do with patients. We are all more analytical and confident to question practices that have been historically used for many years." [PT4]
- "My research and critical thinking contributes to redesigned pathways and patient outcome improvement." [RAD6]
- "These skills have filtered through to my clinical work, helped me to facilitate service changes within the clinical team and helped to foster an ethos of research as core business within my immediate team, but also more widely in the hospital Trust and wider professional networks." [SLT13]

Challenges:

- "… In a university department I could not do my job without a PhD. In the NHS they didn't quite know how to best exploit my new skills and knowledge (or what they

were). Now I know how they could but then I didn't. If I knew then what I know now I might have stayed in the NHS and tried to change things" [SLT9]

- "I think they [doctoral skills and knowledge] are respected by senior colleagues but I find my own departmental managers find little value in either higher education achievement or research, which they often consider to be a burden." [PT3]
- "Having a PhD was not valued in my previous job in the NHS because I was seen as developing skills in the wrong area - extremely disappointing for me." [OT7]
- "My employer is oblivious to them [PhD skills gained].[…] My NHS employer has no interest in my academic skills, experience or knowledge. No-one at work acknowledges my doctorate, uses Dr when addressing me or writing to me, or recognises in a positive sense the study I have undertaken." [PT24]
- "Doing the doctorate has meant missing out on many opportunities to develop within my NHS trust both clinically and in terms of managerial/seniority. The doctorate seems to open up more opportunities outside of the NHS as opposed to within it…" [MISC7]
- "I would have liked to have had a clinical-research career, but there is no support for this, it's something I would have to carve out myself, and due to other pressures (family, financial etc), I just haven't felt able to do this." [SLT1]
- "I would like to be a clinical academic but this is not a role valued by my Trust or managers. I have had some support from previous managers in the past to use my research skills within my current post, but research is to some degree viewed as a luxury and clinical risk and managerial issues always take priority." [SLT14]
- "I feel my doctorate has given me a platform to carry out more research; however I wasn't expecting on having to leave my senior leadership position in the NHS to do this." [OT7]

APPENDIX 3 - Further details of drivers

The NHS Long Term Plan (2019)
Available to read in both a full length and a summary (two page) version.
Key points of note in the context of the AHP Research Summit include:

- Along with setting out the NHS's priorities for care quality and outcomes improvement for the decade ahead, the Plan 'also recognises the critical importance of research and innovation to drive future medical advance, with the NHS committing to play its full part in the benefits these bring both to patients and the UK economy.' (p8)
- 'Patients benefit enormously from research and innovation, with breakthroughs enabling prevention of ill-health, earlier diagnosis, more effective treatments, better outcomes and faster recovery … 'Research-active' hospitals have lower mortality rates, with benefits not limited to those patients who participate in research.' (p75)
- 'Research and innovation are also important for the UK economy, bringing jobs and services … The government's ambition is to treble industry contract and R&D collaborative research in the NHS over ten years, to nearly £1 billion.' (p75)
- 'Performance on adopting proven innovations and on research including in mental health services will become part of core NHS performance metrics and assessment systems, as well as benchmarking data.' (p77)
- Even before the pandemic, the NHS Long Term Plan noted an 'unsustainable' level of vacancies (p78), that 'the NHS hasn't been a sufficiently flexible and responsive employer, especially in the light of changing staff expectations for their working lives and careers' and that 'many of those leaving the NHS would remain if employers can reduce workload pressures and offer improved flexibility and professional development.' (p8)
- Ensuring that staff 'have rewarding jobs, work in a positive culture, with opportunities to develop their skills' is noted amongst a number of specific workforce actions (p78).
- '170,000 Allied Health Professionals (AHPs) in 14 professions work independently across the spectrum of care from primary to specialist care provision. AHPs can significantly support the demand profile the NHS faces and we have recently published 15 studies demonstrating how AHPs currently support patient flow across the whole system.' (p82)
- 'One of the top reasons for people leaving is that they do not receive the development and career progression that they need. CPD − or more specifically workforce development - has the potential to deliver a high return on investment. It offers staff career progression that motivates them to stay within the NHS and, just as importantly, equips them with the skills to operate at advanced levels of professional practice and to meet patients' needs of the future.' In addition to commitments from HEE regarding the proportion of its budget spent on workforce development, '[s]upport from employers is also key – in particular ensuring that staff are given the time out to develop their skills.' (p85)
- To deliver for taxpayers, the NHS will continue to drive efficiencies - all of which are then available to local areas to reinvest in frontline care.
- 'Research evidence shows some interventions are not clinically effective or only effective when they are performed in specific circumstances. And as medical science advances, some interventions are superseded by those that are less invasive or more effective. The NHS needs to ensure that the least effective interventions are not routinely performed, or only performed in more clearly defined circumstances ... This will potentially avoid needless harm to patients, and free up scarce professional time for performing other

interventions - including creating headroom for proven innovations. The time and resources saved will all be reinvested in patient care.' (p107)

- 'We expect all ICSs, supported by our national programmes, to bring together clinicians and managers to implement appropriately standardised evidence-based pathways.' (p108)

NHS People Plan (2020)
Key points of note in the context of the AHP Research Summit include:

- In addition to fostering a culture of inclusion and belonging, it focuses on 'actions to grow our workforce, train our people, and work together differently to deliver patient care' (p5).
- A fundamental principle of the People Plan is the need to develop new ways of working and delivering care, emphasising the need to make effective use of the full range of our people's skills and experience to deliver the best possible patient care. (p6)
- 'To successfully innovate, we need to measure the impact to see what works.' (p12)
- 'There should be continued focus on upskilling – developing skills and expanding capabilities - to create more flexibility, boost morale and support career progression.' (p34)
- '… employers, line managers and supervisors must once again create the time and space for the training and development of our people, and our future colleagues, with a renewed emphasis on the importance of flexible skills and building capabilities rather than staying within traditionally-defined roles.' (p36)
- '… employers must make sure our people have access to continuing professional development, supportive supervision and protected time for training. Employers have received new funding to support the continuing professional development of nurses, midwives and allied health professionals, equivalent to £1,000 per person over three years. Employers will need to support this investment through backfilling staff time during training.' (p37)
- Retaining staff is a significant theme in the People Plan, including identifying that 'Systems and employers must make greater efforts to design and offer more varied roles to retain our people.' (p46)
- 'Systems will have a central role in helping design new models of care and major service changes, to deliver better population health outcomes.' (p47)
- 'The best way to deliver change rapidly is to mobilise a 'movement for improvement'.' (p51)

NHS England 2022/23 priorities and operational planning guidance
Key points of note in the context of the AHP Research Summit include:

- The challenge of '… significantly increasing the number of people we can diagnose, treat and care for in a timely way. This will depend on us doing things differently, accelerating partnership working through integrated care systems (ICSs) to make the most effective use of the resources available to us across health and social care, and ensure reducing inequalities in access is embedded in our approach.' (p4)
- Listed as the first of the identified priorities, 'Invest in our workforce – with more people and new ways of working, and by strengthening the compassionate and inclusive culture needed to deliver outstanding care.' (p8)
  - '… inspire, empower and enable them to deliver high quality care in the most effective and efficient way.'

- - - 'accelerate the introduction of new roles, such as anaesthetic associates and first contact practitioners, and expanding advanced clinical practitioners.'
- Amongst other things, systems are required to set out in their plans how 'services will be organised and delivered to maximise productivity opportunities and secure the best possible outcomes for patients.' (p14)
- '… transformation of out-of-hospital services is a key element of the NHS recovery. National funding, alongside additional growth within core allocations for community services funding, will support systems to increase overall capacity of community services to provide care for more patients at home and address waiting lists, develop and expand new models of community care and support timely hospital discharge.' (p22)
- As part of their plans to reduce community services waiting lists, systems are asked to 'consider transforming service pathways and models to improve effectiveness and productivity.' (p24)
- System plans are also expected to support 'Progress against the NHS Long Term Plan high impact actions to support respiratory, stroke and cardiac care, implementing new models of care and rehabilitation.' (p32)
- Another particularly pertinent priority is to 'Make the most effective use of our resources' (p34). Amongst the expectations is that the NHS will 'deliver significant additional efficiencies' (p35)

CQC Trust-wide Well-led Inspection Framework

Trust level guidance includes:

- Does the service move beyond single models for understanding the improvement process, and the need to draw on a wide range of kinds of evidence for making the case for improvement?
- Are divisional staff aware of research undertaken in and through the Trust, how it contributes to improvement and the service level needed across departments to support it?
- Do leaders test out their service delivery processes, encourage innovation and new practices?
- How do senior leaders support internal investigators initiating and managing clinical studies?
- Does the vision and strategy incorporate plans for supporting clinical research activity as a key contributor to best patient care?
- Does the Trust have clear internal reporting systems for its research range, volume, activity, safety and performance?
- How are patients and carers given the opportunity to participate in or become actively involved in clinical research studies in the trust?
- Are improvements sustained?
- Can leaders provide evidence of improvements made following learning?
- Is there learning from other trusts?
- Is service improvement resourced such that it can realistically have an impact?
- What do staff/the trust think they are doing better this year in relation to meeting the needs of patients with mental health, learning disabilities, autism or dementia diagnoses? Is there evidence to back up their views?
- Is improving and innovating in line with the aims and objectives of the local Cancer Alliance and the National Cancer Strategy, with a focus on:
  - implementing new service networks, specifications for diagnosis and treatment of cancer and NICE cancer pathways, including stratified pathways
  - upgrading linear accelerators, where required

- Is the trust aware of NICE's cost savings guidance? If so how has the guidance been used and what efficiencies have been achieved?

HEE (2022) AHP Research and Innovation Strategy for England

As outlined earlier in the Briefing Pack, the HEE (2022) AHP Research and innovation Strategy for England is focused on four interdependent and equally important domains considered essential to achieving transformational impact and sustainable change. The strategic vision is articulated within three distinctive strands or vision statements, each of which is supported by strategic aims:

1. **Transformation** of AHP professional identities, culture and roles.
   1.1. A transformational shift in awareness, skills and values for research and innovation across the life course for all AHP workforce communities.
   1.2. Research, innovation and quality improvement is embedded into job descriptions and routine practice across all career stages of the Allied Health workforce.
   1.3. A range of research and innovation roles and career routes for AHPs are clearly signposted and well-supported.

2. Delivery of **excellence** in evidence-based Allied Health practice.
   2.1. World-leading quality research and innovation for Allied Health practice is co-produced by expertise from the public voice, academics, practitioners and the wider Allied Health Community.
   2.2. Allied Health practice is underpinned by scientific research and driven by Implementation Science and service improvement models.

3. National strategic research agendas and priorities are explicitly **inclusive** of Allied Health research and innovation.
   3.1. Allied Health research and innovation directly aligns with and contributes to the priority agendas in national health, care and wellbeing strategies.
   3.2. Dedicated investment for substantive and sustainable funding, resourcing and infrastructure to support Allied Health research and innovation.

Objectives are also articulated for each strategic aim. Implementation work is ongoing in association with the Council of Allied Health Professions Research (CAHPR).

- 'Access to support for research careers through internships and fellowships is essential to assure the growth of a sustainable critical mass of research leadership for the future generations of AHPs.' (p8)
- 'The provision of more effective and efficient signposting for information, support, mentorship and funding opportunities continues to be an essential priority, so that highly talented individuals at any stage of their career may be supported to be successful in these routes.' (p8)
- 'In the context of pressing organisational priorities for all stakeholders, the mutual benefits of more deeply integrated practice-academic partnerships to impact on quality and on retention of highly experienced and motivated staff is essential.' (p8)
- 'The landscape for AHP researchers needs parity with other health professions and must include all the allied health professions, across roles and services, for all those with protected characteristics and across all geographies.' (p11)

APPENDIX 4 – Additional resources

CAHPR (2019) Shaping better practice through research: A practitioner framework

Chalmers S, Hill J, Connell L, Ackerley S, Kulkarni A, Roddam H, (2022) Allied health professional research engagement and impact on healthcare performance: A systematic review protocol. International Journal of Language and Communication Disorders. DOI: 10.1111/1460-6984.12812

HEE (2017) Multiprofessional Framework for Advanced Clinical Practice

HEE (2020) Multi-professional Consultant Level Practice Capability and Impact Framework

HEE/NIHR Integrated Clinical and Practitioner Academic Programme

NIHR Local Authority Academic Fellowship Programme

NIHR Associate Principal Investigator Scheme

NIHR (2021) UK clinical academic training for nurses, midwives, AHPs and other health and care professionals: principles and obligations | NIHR

RCP NIHR position statement: Making research everybody's business | RCP London

UUK/Vitae Concordat to Support the Career Development of Researchers - September 2019 Available via the Vitae Website, the Concordat focuses primarily on those employed in universities and research institutions specifically to undertake research. However, it offers very useful underlying principles that are relevant to practice-based researchers, including the concepts of rights and responsibilities as part of development.

AUKUH (2016) Transforming healthcare through clinical academic roles in nursing, midwifery and allied health professions. A practical resource for healthcare provider organisations.