



Making research careers work:

a review of career pathways in **health**
and social care in **Wales**

February 2022



Foreword

We are pleased to publish this report on research career pathways in health and social care in Wales, which is the output from a collaborative project between Health and Care Research Wales and Health Education Improvement Wales, working closely with Social Care Wales. The report sets out a number of recommendations to improve opportunities for research career pathways for health and social care researchers in Wales.

Welsh Government's commitment to research is stronger than ever before, and the role research has played in finding treatments and developing vaccines throughout the coronavirus pandemic has firmly demonstrated the value and importance of research like never before.

Government's commitment to research and research careers is visible throughout *A Healthier Wales: our plan for health and social care (WG, 2018)*, which highlights the importance of research and having a nurturing research environment for health and social care professionals. Being evidence driven and using research, knowledge and information to understand what works, to learn from others and using innovation and improvement to develop and evaluate better tools and ways of working is one of the ten national design principles to drive change and transformation.

The role of health and social care professionals in this is critical. One of the key aims of *A Healthier Wales* is to bring all of these different change drivers together, so that our entire health and social care system and workforce is directly engaged. Everyone working in our health and social care services should have the opportunity to apply their knowledge and experience to better ways of working, including through opportunities for staff to combine research with practice and clinical roles.

Relationships with important partners, including for example universities and industry, need to be developed and managed transparently, with confidence and assurance. All Health Boards in Wales have partnership arrangements with Universities, as University Health Boards or as a Teaching Health Board.

In recent years, the NHS in Wales has worked more confidently with industry, supported by Welsh Government policy and initiatives like the Life Sciences Hub. This also aligns with the principles in the UK Industrial Strategy: *Life Sciences Sector Deal 2 (2018)* and the *Life Sciences Sector Deal 1 (2017)*. In social care, local authorities work widely with organisations in the independent and third sectors, and some have forged links with universities in specific research areas but do not yet have the resources in place for formal partnership arrangements to the same extent as in the NHS.

Evidence-informed practice is now widely recognised as the key to improving the quality of health and social care. We know that research not only has academic benefits but is directly associated with improved outcomes for patients as well as individuals and families using care and support. A growing body of evidence demonstrates the benefits of organisations being research-active, for example, where hospitals have high participation in research, patients have better health outcomes. Even patients who are not themselves research participants benefit from being in research-active hospitals.

To facilitate the use of evidence in our public services, we need to encourage a research culture within organisations delivering health and social care to create an environment where professionals are encouraged to deliver research, develop their own research and for some, go on to pursue a research-based career.

For health and social care professionals, pursuing a research career has many benefits as they have the chance to improve care for patients and service users by generating new ways to prevent, diagnose and treat disease, as well as ways of promoting independence and well-being. Direct engagement with the latest breakthroughs, can enable life-long intellectual stimulation for those who are interested in driving advances in practice and research careers can offer more variety compared to front-line practice work alone. Following a research career pathway provides opportunities for personal development and progression, with the chance to build new skills and abilities.

Research active health and social care professionals will also have opportunities to drive culture change within health and social care systems and have opportunities for collaboration and networking, both nationally and internationally. These are well respected roles that often come with a higher profile. Research careers are highly rewarding, where health and social care professionals can be challenged, and get an enormous sense of achievement from making a difference to the future of health and social care.

There are many benefits to health and social care organisations in developing and supporting their workforce to become research active and to pursue a career in research. Being research active increases the organisation's ability to attract outstanding staff, as well as enhancing staff retention. In addition to the benefits that being a research active organisation can have on patient and service user outcomes, having clinical and practice academics who are fully integrated across the NHS, local authorities and academia is extremely beneficial. Such roles can undertake vital research and provide teaching and training, alongside working with patients and service users on the frontline. They also provide a unique perspective on research and make vital contributions to all aspects of health and social care.

Clinical and practice academics not only enhance the health and social care services they provide but they also provide considerable contributions to society, researching

health and societal issues of public concern. They also improve both research and practice by providing cutting edge clinical/ practice work and improving patient and service users' care through innovative techniques, as well as inspiring other health and social care professionals to be involved in research through leadership. In addition, investment in research leads to economic benefits for the NHS and local authorities that can be used to support frontline services.

This report identifies the current research training and development opportunities, funding and support for health and social care researchers in Wales and reviews the research career pathways across Wales and the UK. It looks at existing funding schemes, gaps in current funding opportunities and suggestions on how to fill these gaps, as well as suggesting that there is a need to invest more funding in research careers for all disciplines, across all sectors, and at all stages of the research career pathway. The report highlights the enablers to developing a research career, as well as the barriers and puts forward suggestions to improve research career pathways in Wales.

This review of research career pathways concludes with 17 recommendations to improve opportunities for research career pathways for health and social care researchers in Wales, for which there is widespread support from Welsh Government, funders and stakeholders.

These recommendations will be taken forward throughout 2022/23 and beyond through a collaboration between Health and Care Research Wales, Health Education Improvement Wales and Social Care Wales. We will be collaborating to produce a detailed implementation plan, and to provide strong leadership in this endeavour. We are determined to improve opportunities for research career pathways for health and social care researchers in Wales.



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Contents

Foreword	1
Contents.....	4
1. Executive summary	6
2. Introduction.....	8
3. The research career pathways project	9
4. The research career pathways review	10
5. Previous research.....	11
6. Research training and development opportunities in Wales.....	15
7. Research training and development opportunities across the UK	19
7.1 Training and development opportunities from UK government funders.....	19
7.2 Training and development opportunities from research councils and charities	22
7.3 UK wide partnership working.....	23
8 Research support and guidance in Wales	24
8.1 Opportunities, funding and support received by health and social care researchers in Wales.....	26
8.2 Employing organisation support.....	27
8.3 Opportunities useful for the future	29
9 Gaps in training and development opportunities in Wales.....	30
10 Enablers to developing a research career in Wales	32
11 Barriers to developing a research career in Wales.....	33
12 Improvements to the research career pathways in Wales	35
12.1 More funding for research careers	36
12.2 Enabling time for research	38
12.3 Clear career pathway.....	38
12.4 Support, guidance and Information	39
12.5 Mentoring schemes and role models	39
12.6 Long term secure career opportunities.....	41
12.7 Clinical/practice academic posts	42
12.8 Improved infrastructure collaboration	43
12.9 Embedding research in the NHS/local authorities.....	44
12.10 Raising awareness/ profile of research	45
13 Recommendations for the future: A new vision for research career pathways in Wales	45
Appendix 1	48
Terms of Reference for Project Steering Group: June 2021.....	48
Appendix 2:	50
Funder Interviewees for Phase 1	50

Appendix 3	51
Questions on Research Career Pathways for Funders/ Stakeholders.....	51
Appendix 4	54
Stakeholder Interviewees for Phase 2a	54
Appendix 5	56
Survey on Research Career Pathways for health and social care professionals.	56
Appendix 6	59
Researcher Survey.....	59
Appendix 7	63
Feedback relating to funding opportunities across the UK and partnership working	
.....	63

Making research careers work: a review of career pathways in health and social care in Wales

1. Executive summary

The Research Career Pathways Project is a collaborative project between Health and Care Research Wales and Health Education Improvement Wales (HEIW), working closely with Social Care Wales.

The project aimed to review the research training and career development pathways for the health and social care research community in Wales, examining whether they are fit for purpose and considering what improvements could be made.

Examples of previous research in this area within Wales and across the UK provides context, with the findings of previous research resonating with the outcomes of this review.

Research training and development opportunities for health and social care researchers in Wales consist of five main schemes funded by Health and Care Research Wales which focus on supporting individuals to develop their research careers, two focused on social care (Studentship/ Fellowship) and two focused on healthcare (Studentship/ Fellowship), with a fifth scheme aimed at the provision of protected time for NHS staff (NHS Research Time Award).

In addition, Health and Care Research Wales funds Research Capacity Building Collaboration Wales (RCBC); as well as a Research Capacity Building Initiative to develop research capacity in social care; and also co-funds PhDs in social care through the Economic and Social Research Council (ESRC) Wales Doctoral Training Partnership (DTP). HEIW funds the Wales Clinical Academic Track (WCAT) for doctors. Health and social care researchers in Wales also have access to the NIHR Fellowships for All.

When comparing the opportunities available in Wales against those available in England, there is a disparity in the investment and opportunities for health and social care researchers with regard to research career pathways, although this isn't quantified through this review.

There is also a vast range of schemes for research careers offered by the research councils and charities across the UK, all of which are accessible by Welsh applicants.

There is a continued desire to collaborate across the UK and improve co-ordination in the provision of research career opportunities for health and social care.

Health and social care researchers in Wales access a wide range of opportunities, funding and support for their research careers such as research training and support for PhDs and Masters, although some haven't received any support. The most useful support for health and social care researchers in developing a research career is research training; time to do research; and support for qualifications.

Feedback from stakeholders and health and social care researchers focussed on existing funding schemes, gaps in current funding opportunities and suggestions on how to fill these gaps.

Health and social care researchers in Wales really value the opportunity to participate in NIHR Fellowships. Feedback suggests that Wales should also continue to explore more opportunities for cross funder investment, with UK wide funders and matched funding across organisations within Wales.

Feedback focussed on the need to make funding schemes more attractive by enabling reasonable financial remuneration commensurate with salary reimbursements and increasing the frequency of the schemes.

Responses also suggested that there is a need to invest more funding in research careers in public health, social care, primary care and within the NHS itself, whilst also focusing on the funding disparity between health and social care.

There should be more opportunities, and targeted schemes or ringfenced funding for underrepresented disciplines such as social workers, nurses, midwives and allied health professionals (NMAHPS), dentists and research delivery staff, which are equitable to the opportunities available for other disciplines.

Feedback also suggested the need to invest more funding across all stages of research careers, as well as enhanced investment particularly in post-doctoral early level (mid-career), but also in pre-doctoral stages, and the provision of more senior opportunities. Support and guidance for researchers at the transition points between career stages is really important, as is bridging funding to support this.

Research funding opportunities should be provided for all disciplines, across all sectors, at all stages of the research career pathway. Parity of opportunity is really important, as well as flexibility to respond to challenges as they evolve.

55 enablers to developing a research career were cited from both stakeholders and health and social care researchers with the most commonly highlighted enablers being

funding and resources; protected time for research; support from employing organisation; mentoring and role models; and support, advice and guidance.

59 barriers to developing a research career were cited from both stakeholders and health and social care researchers with the most commonly highlighted barriers being insufficient funding; lack of protected time for research for health and care professionals; clinical/ practice priorities; NHS/ local authorities poor research culture; and lack of support from employing organisations.

58 suggestions were proposed to improve research career pathways in Wales, cited by stakeholders and health and social care researchers. The most commonly highlighted improvements were more funding for research careers; enabling time for research; clear career pathways; support, guidance and information; mentoring schemes and role models; long term secure career opportunities; clinical/ academic posts; improved infrastructure collaboration; embedding research in the NHS/ local authorities; and raising awareness/ profile of research.

The Research Career Pathways project proposes 17 recommendations to improve opportunities for research career pathways for health and social care researchers in Wales across several areas including Strategy, Funding & Leadership, Infrastructure, Culture & Ecosystem and Communications and Engagement.

2. Introduction

Supporting research careers for people in the health and social care research community is a key part of delivering Health and Care Research Wales' mission, which is:

- To promote, support and provide collective oversight of health and social care research in Wales to ensure it is of the highest international scientific quality
- Ensure that research is relevant to the needs and challenges of health and social care in Wales
- Ensure that research makes a difference to policy and practice in ways that improve the lives of patients, people and communities in Wales

Health Education Improvement Wales (HEIW) has a leading role in the education, training, development and shaping of the healthcare workforce in Wales, ensuring healthcare services have the right staff, with the right skills, to deliver world-class healthcare to the people of Wales both now and in the future. They have a strategic objective outlined in their annual plan (2021/22) to improve career pathways and education opportunities for the clinical academic and research workforce.

Social Care Wales aims to make a positive difference to social care in Wales and plans to achieve this by building confidence in the workforce, leading and supporting workforce development and improvement in social care.

Together, Health and Care Research Wales, HEIW and Social Care Wales have a collective mission to support health and social care professionals realise their potential, supporting individuals to become tomorrow's research leaders, whilst collectively building research capacity and capability in Wales. In 2020, Health and Care Research Wales and HEIW, working closely with Social Care Wales, agreed to review the current training and development opportunities available for health and social care professionals and others wanting to pursue careers in health and care research, explore whether they are fit for purpose and consider improvements to inform the future vision. The outcome of the review is this report which puts forward a set of recommendations for consideration to improve research career pathways in Wales.

3. The research career pathways project

The Research Career Pathways Project is a collaborative project between Health and Care Research Wales and HEIW, working closely with Social Care Wales, which aimed to undertake a review of the research training and career development pathways for health and social care researchers in Wales, examining whether they are fit for purpose and considering what improvements could be made.

The project aims were to:

- a) Identify current capacity and capability development schemes and systems in Wales
- b) Compare provision in Wales with that in the other countries of the UK
- c) Explore what is known about the effectiveness of current provision in developing and sustaining capacity and capability in health and care research
- d) Develop a set of recommendations for the future in improving the arrangements for developing capacity and capability in health and care research

The scope of the project was broad, including the review of research career and training/ development pathways for health and social care professionals across all disciplines including but not limited to, medical staff, nurses, allied health professionals, healthcare scientists, paramedics, pharmacists, social workers as well as all other non-clinical researchers and those working and researching in public health, primary and social care. Throughout this report we use the terms 'health and care researchers' and 'people in the health and social care research community' to refer to this diverse, multidisciplinary and multi-professional community.

The scope of the project does not include research management and delivery staff, that is those who wish to follow a principle investigator pathway, NHS study delivery pathway or research management career pathway. Rather, the scope of this report focuses on the pathway to lead research. These are not separate career pathways however, as they may merge and overlap, but there are additional funding schemes and support for those who follow research management and delivery pathways.

The Research Career Pathways project was also overseen by a Project Steering Group which helped steer the project, predominantly made up of membership from the lead organisations- Health and Care Research Wales and HEIW, including key representatives from Social Care Wales and Welsh Government (WG). The Terms of Reference for the Project Steering Group can be found in Appendix 1.

4. The research career pathways review

The project was undertaken in 4 phases between January- September 2021:

- Phase 1: Identify and describe current capacity and capability development schemes and systems in Wales and across the UK

Phase 1 of the Research Career Pathways Project was undertaken between March-July 2021 and the aim was to map and undertake desk research to identify and describe current capacity and capability development schemes and systems in Wales and across the UK. As part of this phase, the UK funders were interviewed as per Appendix 2. Each of the funders were asked the interview questions in Appendix 3.

- Phase 2a: Engage with stakeholder organisations to identify further support available for health and social care researchers and identify key themes in developing research capacity and capability

Phase 2a of the Research Career Pathways Project was undertaken between June-September 2021 and the aim was to engage with stakeholder organisations to identify further support available for health and social care researchers and to identify key themes in developing research capacity and capability.

As part of this phase, 33 stakeholders were interviewed for around 45 minutes to an hour using the set of questions in Appendix 3. The full list of stakeholders who were interviewed can be found at Appendix 4.

- Phase 2b: Gather views from health and social care researchers to obtain feedback on the opportunities, support and experiences they have had in developing their research careers

Phase 2b of the Research Career Pathways Project was undertaken in July 2021 and the aim was to gather views from health and social care researchers to obtain feedback on the opportunities, support and experiences they have had in developing their research careers.

As part of this phase, a survey was developed and circulated among the Project Steering Group (including HEIW and Social Care Wales), all the stakeholders interviewed as part of phase 2a, Health and Care Research Wales Centres and Units, Senior Research Leaders, Specialty Leads, R&D Directors and the survey was also promoted in the Health and Care Research Wales bulletin over several weeks whilst it was open. The survey questions can be found at Appendix 5.

In total, the survey received 186 responses, 63% from NHS respondents, 31% from higher education institutions, 2% from the social care sector, 2% with joint employers, with the remaining 2% unknown. Further information on the survey respondents can be found in Appendix 6, including their employing organisations, highest levels of education, research experience, research careers so far, current roles in research and their research career aspirations.

- Phase 3: Develop and consult on a set of draft recommendations for future improvements in developing capacity and capability in health and care research

An initial set of recommendations was developed in early August based on the interim findings which were discussed and consulted upon amongst the Project Steering Group. The recommendations continued to be amended and consulted upon amongst the steering group until the final set were agreed in October.

5. Previous research

Whilst the project didn't intend to review the existing literature on research careers, there are some key reports which are notable in the context of this review. *A Cross-Funder Review of Early-Career Clinical Academics: Enablers and Barriers to Progression* (IFF Research, 2015) identifies the routes by which medical students and clinical trainees first develop an interest in academic careers, the career pathways they pursue and enablers and barriers to pursuing a clinical academic career.

Ten years on: adapting and evolving to new challenges in developing tomorrow's health research leaders (NIHR trainees co-ordinating centre, 2017) sets out the 15-20-year vision for academic training in the NIHR underpinned by principles and recommendations.

The *UK-Wide Survey of Clinical and Health Research Fellowships (2017)*, undertaken by the Medical Research Council on behalf of 13 funders including Health and Care

Research Wales, provides an overview of current UK wide investments to grow and sustain the capacity for clinical, health and public health research. One of the recommendations from this was to take a four-nation approach to strategic planning for clinical research careers across departments and funders in the UK.

What Researchers Think About the Culture They Work In (Wellcome, 2020) found that there are widespread problems in research culture, and included some suggestions to support improvements including: changes to funding structures, better support for early-career researchers and training to strengthen managing and mentoring.

Transforming health through innovation: Integrating the NHS and academia (2020) in which the Academy of Medical Sciences sets out a series of actions to achieve six key outcomes that are essential for enhancing the interface between the NHS and the UK's academic biomedical and health research sector including:

- Creating a healthcare system that truly values research;
- Fully integrating research teams across academia and the NHS;
- Providing dedicated research time for research-active NHS staff;
- Ensuring undergraduate curricula equip healthcare staff with the skills to engage with research;
- Incorporating flexibility into postgraduate training pathways; and
- Streamlining research through joint R&D offices.

Creating time for research: identifying and improving the capacity of healthcare staff to conduct research (Cancer Research UK, 2021) identified four broad themes and put forward ten recommendations to be taken forward across the UK to achieve this.

From the sticky floor to the glass ceiling and everything in between: A systematic review and qualitative study focussing on gender inequalities in Clinical Academic careers (2020) sought to explore the barriers and facilitators to clinical academic careers, with a focus on inequalities based upon gender and ethnicity. This study included the identification of enablers and barriers for medics and dentists and concluded that clinical academics struggle to navigate the clinical academic pathway and balance clinical duties with conducting research. It also recommended that research funders commit to establishing large scale national infrastructure to facilitate research into the careers of UK clinical academics and interventions to support them.

Other reports focus on specific disciplines such as *Nursing, midwifery and allied health clinical academic research careers in the UK* (Council of Deans, 2018) which highlighted that clinical academic research careers for nurses, midwives and allied health professionals (NMAHPs) are probably underdeveloped in Wales compared with England and Scotland, and that an adequately funded, centrally coordinated strategy and further support for post-doctoral research funding is needed.

Interventions and strategies aimed at clinical academic pathway development for nurses in the United Kingdom: A systematised review of the literature (Henshall et al., 2021) identified a range of programmes, pathways and toolkits, pathway outcome measures, barriers and facilitators to pathway development. It is suggested that the findings can inform nursing clinical academic research pathway development internationally, by identifying key drivers for success. It also noted that sustained and cohesive implementation of clinical academic research pathways is lacking across the UK.

This is not intended to be a comprehensive list of previous research into research career pathways but rather to give a flavour of the existing research in this area. It is notable that the majority of the key reports highlighted here are focused on research career pathways within a healthcare setting, specifically clinical academic careers and in some cases, with a focus on nursing, midwifery and allied health professionals, with the exception of the *What Researchers Think About the Culture They Work In* (Wellcome, 2020) where participants consisted of UK researchers from biomedical or biological sciences, other sciences, social sciences, and humanities.

There has also been some research activity in Wales relating to research career pathways. In January 2017, the Welsh Government commissioned Professor Graeme Reid to investigate Government funded research and innovation in Wales which reported in June 2018 with three recommendations regarding Welsh Government's future investment in research. The Cross-Party Group on Medical Research undertook an extensive inquiry to find out how the conclusions of the Reid Review impacted the medical research environment in Wales and what still needs to happen for Wales to capitalise on the skills and innovation within the Welsh research environment.

It has been three years since the Reid Review and a recent report published in February 2021, *The Next Steps for Wales to Achieve its Potential in Medical Research: The Fifth Senedd Cross Party Group on Medical Research* highlights that a key aspect of a flourishing research environment is the opportunity for talented researchers to develop and establish themselves. However, careers in research are currently unstable and there are significant barriers to development for early-career researchers. The report advises that the Welsh Government should urgently take steps to provide greater support for research careers in Wales including actions to: a. Improve the availability of long-term funding for researchers; b. Improve job opportunities for early-career researchers across Wales; c. Ensure continuing professional development for career researchers and clinicians engaging in research; d. Ensure that NHS workforce planning takes into account protected time for research across all roles to facilitate a culture of research within the NHS; e. Continue to fund the Sêr Cymru programme and attract new talent to Wales' research environment.

In addition to this, many institutions and infrastructure groups have reviewed the career pathways for their organisation and/or their disciplines, for example a discussion paper on CASCADE's research staff, which suggested that whilst there were positive attitudes and experiences towards the Centre, wider issues relating to uncertainty surrounding research career development, security, and progression also existed.

Survey findings (Cardiff University Research Staff Association (CURSA), 2020) from 127 research staff from across Cardiff University highlighted tension between researcher development and progression and the current lack of a clear researcher pathway.

A Clinical Research Symposium took place in 2019 to explore the current position in Wales with respect to the role of the clinical academics in NMAHP's workforces, and how this can be developed to better meet the needs of our professions and patient care in Wales. As a result, a series of 13 recommendations were put forward through a report which included the need for a definition of a clinical academic pathway in nursing, midwifery and the allied health professionals (AHPs), a national framework for how this can be achieved and funding which is directed at research training and opportunities for NMAHPs, including doctoral, pre-doctoral and post-doctoral training.

The Royal College of Physicians in Wales has done some work around *Time for Research: delivering innovative patient care in Wales* (2019), which includes a set of recommendations such as that the Welsh Government should work with the medical research community to ensure NHS staff have protected research time and health research facilitators should ensure there is support for research skills development.

A recent literature review focused on nursing and AHP clinical academic careers (Macauley, September 2021) was undertaken as part of the work of the Nursing and Allied Health Professionals Cancer Research Board Meeting which found that further development of clinical academic pathways in Wales is needed to enhance research and healthcare outcomes.

These examples are not intended to provide a comprehensive review of previous research in Wales but rather to provide some context for this review. Much of the findings of this previous research resonates with the outcomes of this review, albeit at a UK wide level or focusing on specific disciplines. However, this review focuses specifically on Wales and has a broad scope, including all sectors, disciplines and health and social care professionals at all stages of their research careers. In addition, undertaking a review of research career pathways in Wales provides the opportunity to develop specific recommendations for Wales, to enable us to make progress in creating stronger research career pathways across health and social care.

6. Research training and development opportunities in Wales

Health and Care Research Wales has invested in training and career development opportunities for over a decade. The funding from Health and Care Research Wales focusses on people and patient/ service user based research where the research must be relevant to the NHS or local authorities in Wales. Health and Care Research Wales funds clinical/ service level research focussing on service user, patient and public benefit.

The aim of Health and Care Research Wales within the context of research careers is to attract, develop and retain researchers, and to build research capacity and capability in Wales. To achieve this, Health and Care Research Wales works collaboratively within Wales and a UK wide context, through the provision of cross funder opportunities and partnership working with UK wide government funders, research councils and charities.

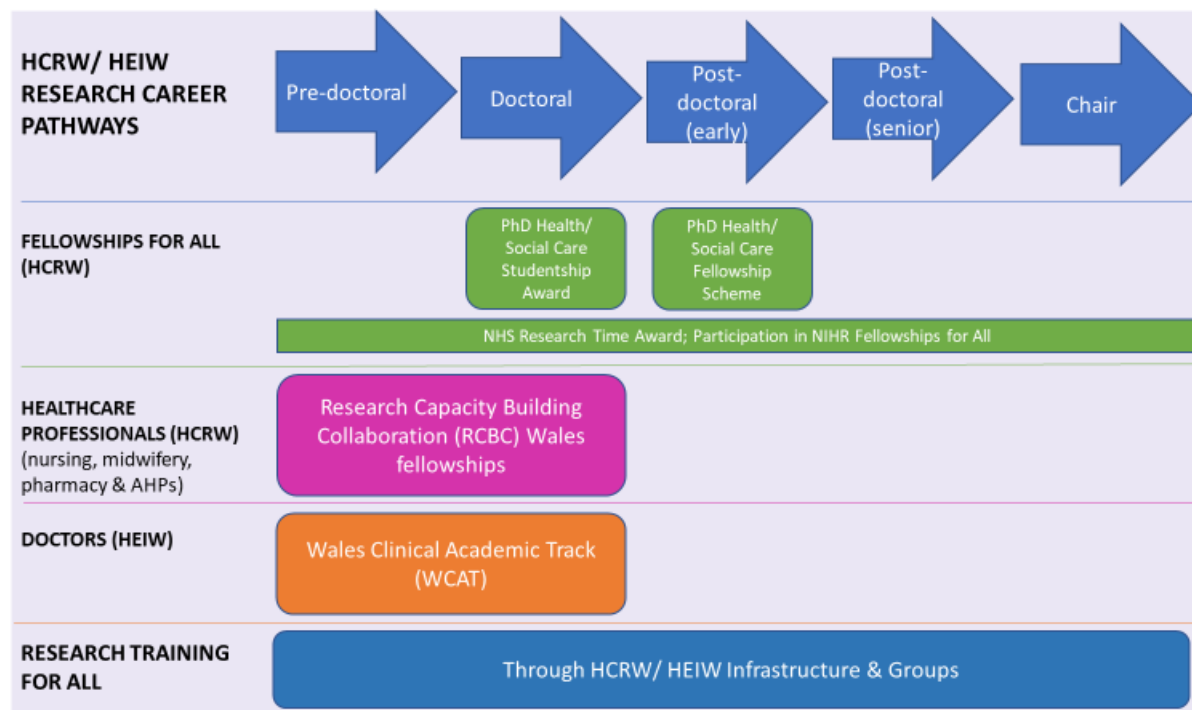
There are currently five main schemes which are funded by Health and Care Research Wales which focus on supporting individuals to develop their research careers, two focused on social care (Studentship/ Fellowship) and two focused on healthcare (Studentship/ Fellowship). All of the schemes have the same budget for health and social care and have eligibility criteria to enable applications from a variety of disciplines. The fifth scheme is aimed at the provision of protected time for NHS staff (NHS Research Time Award).

Health and Care Research Wales also funds an initiative managed by the University of South Wales called Research Capacity Building Collaboration (RCBC) Wales for nurses, midwives, and allied health professionals as well as supporting a Research Capacity Building Initiative to develop research capacity in social care. In addition to this, Health and Care Research Wales co-funds PhD through the ESRC Wales Doctoral Training Partnership (DTP) and HEIW funds the Wales Clinical Academic Track (WCAT) for doctors.

As well as the schemes which are funded and managed in Wales, health and social care researchers in Wales have access to the NIHR Fellowships for All.

All of these schemes/ programmes are described in more detail below. There may be other research funding schemes and opportunities available to health and social care researchers in Wales which may not be captured in the information below and/or highlighted through stakeholder interviews or the survey. The sections that follow are intended to give a flavour of the training and career development opportunities offered for health and social care researchers in Wales.

Figure 1: Diagram to show the Welsh research career pathway for health and social care researchers



Health PhD Studentship Scheme:

Scheme Remit: The Health PhD Studentship Scheme offers talented individuals the opportunity to undertake research and study leading to a PhD through funding high-quality research projects providing robust evidence that addresses the health and care needs of service users, carers and the wider population, and/or the organisation and delivery of efficient and effective services in Wales. Applications from proposed supervisors are welcome across a broad range of health topics and Studentships can be undertaken on a full-time basis over 3 years, or a part-time basis over 4 years or 5 years.

Frequency of Calls: Biennial.

Awards: Since 2015/16, 16 awards have been made through this scheme, to the value of approximately £1M across 5 Welsh institutions.

Social Care PhD Studentship Scheme:

Scheme Remit: The Social Care PhD Studentship Scheme funds talented individuals to undertake research and study leading to a PhD through funding high-quality research projects providing robust evidence which addresses the social care needs of service users, carers and the wider population, and/or the organisation and delivery of efficient and effective social care services in Wales. Applications must come from the proposed PhD supervisor, who is defined as the applicant to this scheme and who will

recruit the student. Studentships can be undertaken on a full-time basis over 3 years, or part time over 4 years or 5 years.

Frequency of Calls: Biennial.

Awards: Since 2015/16, 15 awards have been made through this scheme, to the value of approximately £922K.

Health Research Fellowship Scheme

Scheme Remit: The fellowship award aims to support individuals to become independent researchers through leading and undertaking high-quality research, offering up to 3 years full-time funding (or 4 or 5 years part-time) to individuals who have no more than 60-months full-time equivalent postdoctoral research experience at the time of applying. Applications are invited from individuals working across any health-related or scientific discipline to undertake research with demonstrable public, health service practice or policy benefit which will add to the health research evidence base.

Frequency of Calls: Biennial.

Awards: Since 2015/16, 17 awards have been made through this scheme, to the value of approximately £3.2M across 3 Welsh institutions.

Social Care Research Fellowship Scheme

Scheme Remit: The fellowship award aims to support individuals to become independent researchers and to undertake high-quality research, offering up to 3 years full-time funding (or 4- or 5-years part-time funding) to individuals who have no more than 60 months full-time equivalent post-doctoral research experience at the time of applying. Applications are invited from individuals working across any social-care-related or scientific discipline to undertake research which will benefit service users and/or carers, and social care and support services in Wales.

Frequency of Calls: Biennial.

Awards: Since 2015/16, 11 awards have been made through this scheme, to the value of approximately £3.4M across 3 Welsh institutions.

NHS Research Time Award (RTA):

The NHS RTA aims to build research capacity and capability in the NHS by offering staff the opportunity to apply for protected time to engage in research activity. Applicants should have a clear interest in developing their research skills and should aspire to becoming either a lead or co-investigator, developing high-quality research studies at a local, national or international level. The scheme is open to staff in NHS Wales, or staff contracted to NHS Wales (such as doctors, dentists, nurses, midwives, allied health professionals and clinical scientists) in primary, secondary or community care or public health.

Frequency of Calls: Annual.

Awards: Since 2016, 38 awards have been made through this scheme, to the value of approximately £2.6M across 8 Welsh organisations.

Evaluation: In 2020, a report was produced outlining the evaluation of the clinical research time award, providing an overview of responses. It included suggestions for improving the RTA scheme in the future around NHS support for protected time, mentorship and further funding and opportunities to enhance the scheme.

RCBC Wales

Research Capacity Building Collaboration Wales (RCBC Wales) was created in 2005 and provides funding and support for research fellowships across the research trajectory, from first into research opportunities, doctoral and postdoctoral studies, to a senior health career research fellowship. The scheme is specifically for registered health professionals in nursing, midwifery, pharmacy, clinical science and the allied health professions to secure fellowships to develop their research confidence, skills and expertise. All members of the RCBC scheme join the Community of Scholars which provides mentorship and master classes in research methods and research leadership, including engaging with and influencing policy. The scheme is funded by Welsh Government through Health and Care Research Wales and is administered by the University of South Wales. Since its inception, 102 RCBC fellowships have been awarded.

Research Capacity Building Programme:

A three-year Wales wide programme funded by Health and Care Research Wales began in 2020 and aims to both: encourage people into the field of academic research on all aspects of social care; and support those already working in the field to develop their careers. The programme has three key stages through the provision of Pathway to a PhD (aimed at people working in social care or with lived experience), Pathway to Principal Investigator (aimed at early career researchers) and Pathway to Professor (aimed at mid-career researchers). As part of this programme, Action Learning Set groups are run for people wishing to apply for funding, research methods master classes, and mentorship programmes.

WCAT

The Wales Clinical Academic Track (WCAT) is a clinical academic training programme which equips clinical academic trainees across Wales with the range of knowledge and skills required to compete as independent investigators in the modern area of translational research. The WCAT is run through a collaboration between HEIW and the major universities in Wales (Bangor, Cardiff and Swansea) in association with, and receiving ring-fenced funding from Welsh Government. Each WCAT opportunity provides training from entry through to CCT and includes a salary funded three-year PhD Training Fellowship and a period of clinical training with protected academic time in the clinical training years. All of the trainees are strongly encouraged to apply for externally funded PhD fellowships with a high level of success. Mentorship is also provided, as well as access to post-doctoral workshops and annual clinical academic days. At any one time, there are approximately 35-37 WCAT trainees involved in the scheme.

The ESRC Wales Doctoral Training Partnership (DTP)

The Wales Doctoral Training Partnership (DTP) trains top-level social scientists across Wales on a range of issues affecting society today. Health and Care Research Wales and the Economic and Social Research Council (ESRC) jointly funds PhDs in social care. The partnership is a collaboration between Cardiff University (the lead institution), Aberystwyth University, Bangor University, Cardiff Metropolitan University, the University of Gloucestershire and Swansea University. They are building on and developing a track record of successful social science doctoral training collaboration in Wales, preparing doctoral students for their future careers through the generation of knowledge and building of intellectual capacities and research skills that allow outstanding contributions to be made to environmental, political, economic and social development. The Wales DTP is part of a national network of 14 ESRC accredited Doctoral Training Partnerships across the UK providing PhD students with access to quality research training in the social and economic sciences.

7. Research training and development opportunities across the UK

Across the UK, there are a range of schemes and opportunities available for health and social care researchers. There are similar schemes available UK wide but the range of schemes differ, with opportunities across the pathway, at various different stages in research careers and within specific disciplines.

7.1 Training and development opportunities from UK government funders

The NIHR Academy in England provides a wide range of schemes with a very structured career pathway, including strong funding collaborations with charities and other funders (see Figure 2 for NIHR research career pathway). England appears to be the only UK nation to provide opportunities at the more senior researcher level, going up to Chair. They are also the only UK nation to provide industry partnership fellowships.

The Chief Scientist Office (CSO) in Scotland, the NIHR Academy in England and Health and Social Care (HSC) in the Public Health Agency in Northern Ireland all have several opportunities, some of which are jointly funded via collaborations, including with the third sector. The CSO in Scotland seems particularly strong on joint funding across many of their schemes. The government funded opportunities in Northern Ireland run by the HSC and in England run by the NIHR Academy both include bridging schemes, providing opportunities for researchers to prepare applications for more senior fellowships for example the NHS R&D pre-doctoral bridging scheme is run in Northern Ireland in collaboration with the NHS and is open to AHPs only. It provides a 6 months pre-doctoral award to prepare for the doctoral fellowship award.

In terms of evaluation, schemes are rarely formally evaluated, although all are informally evaluated every year, resulting in regular amendments to schemes on an iterative basis. All four nations have reported challenges in measuring impact and value in their funding opportunities.

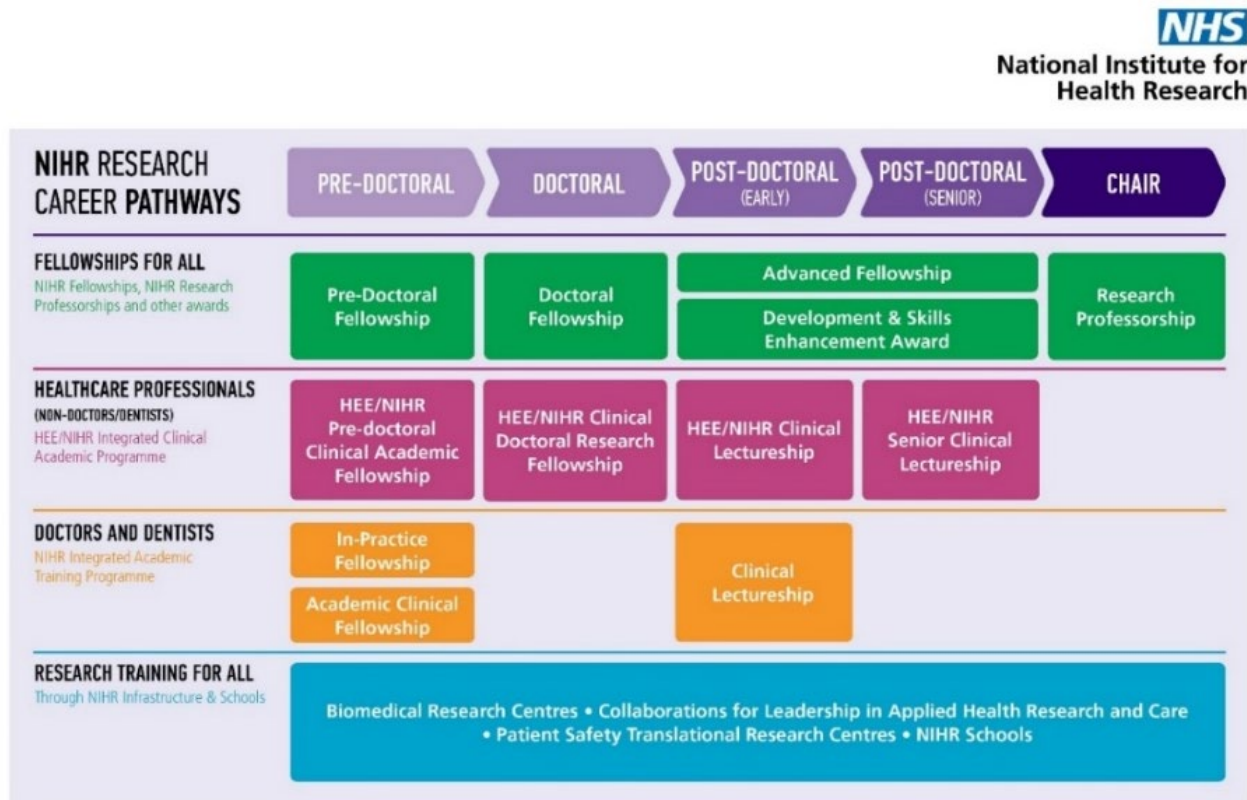
In Scotland, the CSO reviews their schemes and their offer to health and social care researchers, for example an informal review undertaken of one scheme in 2018 found the scheme focussed on medics in training and didn't provide enough opportunities for NMAHPs. The CSO is also committed to providing a wide range of opportunities for all disciplines therefore they plan to adapt the scheme for re-launch to allow all clinical professionals to apply specifically including NMAHPs and healthcare scientists. They're also launching a new post-doctoral scheme for health researchers for all health professions and this will be their first post doc opportunity.

In 2019, the HSC in Northern Ireland undertook an internal evaluation of their schemes by undertaking a survey with previous and current applicants (focussing on their doctoral scheme). The aim was to identify how to make the schemes more attractive to health and social care professionals and changes have been made as a result.

In 2016, the NIHR in England undertook a strategic review of training and career development opportunities for researchers to review the whole offer for the biomedical and health research workforce, which resulted in a report being published in 2017 with a series of recommendations from which an implementation plan was produced (see section 4 above). In 2018, the NIHR Academy was re-launched, with some new programmes and with consolidated and simplified schemes. As part of the NIHR Academy, regular evaluation of schemes now takes place through a group of experts in evaluation to assess the impact of schemes (evaluation and impact team).

To provide a comparison with the research training and development opportunities provided in Wales and England, please see the research career pathway provision developed through the NIHR Academy in England in figure 2 below. When comparing the opportunities available in Wales against those available in England, this demonstrates a disparity in the investment and opportunities for health and social care researchers with regard to research career pathways.

Figure 2: Research Career Pathways provided through NIHR in England



***Please note:** the above visual representation of the NIHR research career pathways needs updating as it doesn't include the Local Authority Fellowships, Charity Partnership Fellowships, Industry Partnership Fellowships or the NIHR Bridging Scheme.

As well as the funding schemes included in figure 2 above, NIHR have run some more recent funding schemes, a number of which have been for social care researchers. In particular, the NIHR has run the following schemes in 2020/2021:

- Pre-doctoral fellowships for Local Authority (LA) and LA commissioned service-based individuals
- Doctoral fellowships for Local Authority (LA) and LA commissioned service-based individuals
- LA short placement award for researcher collaboration: a pilot scheme designed to support short placements for individuals to move between practice and NIHR in order to enhance their careers by developing their skills, knowledge and expertise to work at the interface between local authorities and academia
- Individual Research Career Development Awards: to support individuals to develop their careers in adult social care research in England

The majority of the schemes in the NIHR Research Career Pathways above, including the more recent social care funding schemes, are only accessible to researchers in England. The NIHR fellowships which are run by the NIHR Academy are open to all four UK nations to participate. Wales often participates in the 'Fellowship for All' schemes, with decisions made by Health and Care Research Wales about whether to open a scheme up to Welsh researchers on a call by call basis. In 2020/21, Wales had three researchers who were awarded an NIHR Fellowship, one of which was a Fellowship and two Advanced Fellowships. Northern Ireland also participates in the NIHR Fellowships however, Scotland rarely takes part. Taking part in the NIHR fellowships provides opportunities for researchers across the UK and in each devolved nation and the NIHR Fellowships are considered to be prestigious due to their competitive nature. When participating, the NIHR Academy runs the application process, providing the capacity and capability to run the schemes, but the funding is provided by the home nation for the successful awardees.

However, funding can prevent the devolved nations taking part as the fellowships are expensive and don't run within the same funding parameters as the devolved nation's schemes for example different limits on salary costs for applicants and caps on total funding available. The budgets required can be unpredictable as it is not possible to allocate a budget due to the unknown number of applications meeting the quality threshold and there can also be an issue of successful applicants failing to acknowledge the funding source coming from the devolved nations.

7.2 Training and development opportunities from research councils and charities

As well as the range of schemes and opportunities for health and social care researchers available provided by UK government funders, there are a vast range of schemes for research careers offered by the research councils and charities across the UK, all of which are accessible by Welsh applicants. Some examples are described below.

The Medical Research Council (MRC) fellowships support the development of talented individuals to strengthen the UK research base and enable the scientific community to respond effectively to current and future grand challenges in medical research. The MRC has a leading national role in training researchers across a range of biomedical, clinical and health disciplines. At any one time, the MRC supports around 1,900 PhD students (including pre-doctoral fellows) and 200 postdoctoral fellows.

The Wellcome Trust offers funding and other support at key career stages for researchers in biomedical science, population health, and humanities and social science. They run schemes to support researchers at various stages in their careers, undergraduate, postgraduate training, post-doctoral and when leading a research

programme. They support thousands of curious, passionate researchers all over the world. The way they fund research is changing to support their new strategy through a simplified set of funding schemes.

Cancer Research UK (CRUK) offers a significant number of career development opportunities for clinicians, established researchers, non-clinical researchers and mid-career researchers into all cancer research areas with their most popular being pre-clinical research, biomarker research and clinical trials.

The British Heart Foundation (BHF) provides personal support for clinical and non-clinical cardiovascular researchers at all stages of their career. They also provide grants for short and long-term research projects, essential infrastructure and strategic initiatives. They provide a wide range of fellowships including research training and career development fellowships for nurses and healthcare professionals; clinical, intermediate and senior clinical research training fellowships; intermediate postdoctoral, intermediate and senior basic science research fellowships; 4-year PhD programme and non-clinical PhD Studentships, as well as funding for Research Chairs.

The Economic and Social Research Council (ESRC) is the largest UK funding organisation for research and postgraduate training in the economic and social sciences. They run fellowships for postgraduate students selected through open and transparent competitions and managed through their Doctoral Training Network. The ESRC undertook a review of early career social science researchers: experiences and support needs which led to the launch of new set of measures to enhance their support for early career researchers. They now provide opportunities in three distinct early career researcher stages: doctoral, immediately post-doctorate and transition to independent researcher.

7.3 UK wide partnership working

Through this review, consultation with UK government departments, research councils and charities has suggested that the research opportunities for health and social care researchers offered by the various funders complement each other to make up a whole funding pathway to support researchers at a UK wide level across all stages of research career.

The Future of UK Clinical Research Delivery: 2021/22 programme brings together the four UK countries in implementing the recent strategy *Saving and Improving Lives: The Future of UK Clinical Research Delivery* (2021) which provides a bold and ambitious vision for the future of clinical research delivery. Under action area 5, improving visibility and making research matter to the NHS, there is a UK wide activity where the NHS will facilitate recognition of the professional contribution of nurses, midwives, allied health professions, pharmacists and healthcare scientists to the

research workforce, and the value of research and innovation amongst NHS leaders, making clear to these professions the different ways they can get involved in research.

The Clinical Academic Training Forum (CATF) utilises a multi-funder, multi-agency, four-nation structure to bring about an integrated approach for all clinical academic training professionals, across all clinical communities.

A website has recently been launched called the Clinical Academic Training Hub (CATCH) which aims to be the home for information on clinical academic careers across the UK. The purpose of the site is to showcase and promote the wide variety of exciting career options in clinical academia across a range of healthcare disciplines, provide practical advice on clinical academic career options across all four nations of the UK, to highlight inspiring clinical academics at a variety of career stages to help build aspirations and build links between clinical practice and academia.

Through these and other UK wide partnership arrangements, there is a continued desire to collaborate across the UK and improve co-ordination in the provision of research career opportunities. Although many of these partnership arrangements are focussed on clinical research, the importance of UK collaboration is equally important for all health and social care research.

8 Research support and guidance in Wales

Alongside the formal research training and development opportunities offered to health and social care researchers in Wales, there is other support available which has been identified through the stakeholder interviews and includes:

- **NHS Organisations:** R&D offices in each health board funded by Health and Care Research Wales are committed to supporting health and care professionals in the development of their research careers (as outlined in their research strategies) through a variety of mechanisms encouraging clinicians to do research, providing placements for students, supervision of PhD students, support to identify and apply for funding, as well as raising awareness and support with trying to embed research into staff job roles.
- **Local Authorities:** there is no equivalent to the R&D offices in social care and there is currently limited support for social care professionals to develop a research career, predominantly due to workload pressures and lack of infrastructure and resources. Although there is a lack of incentives to encourage social work/ social care staff to pursue research careers, there is a willingness and interest amongst the workforce to engage in research and use evidence in practice.
- **Higher Education Institutions (HEIs):** many HEIs have research innovation services and teams which support researcher development. They provide

support for their researchers to develop their research careers through learning & development strategies, training & development, mentorship schemes, support to help with funding applications and peer group support. HEIs work within the guidelines set out in the Concordat to Support the Career Development of Researchers (2019), which is an agreement between stakeholders to improve the employment and support for researchers and researcher careers in higher education in the UK. It sets out three clear principles of environment and culture, employment, and professional and career development which are underpinned by obligations for the four key stakeholder groups, funders, institutions, researchers and managers of researchers, to realise the aims of the Concordat. Many HEIs use the concordat as a framework for supporting researchers in their institutions, providing a commitment to implementation and an annual plan.

- **Health and Care Research Wales Training Programme:** Health and Care Research Wales offers an extensive range of high-quality, needs-driven training courses across Wales to the research community which are available for researchers and health and social care professionals including those involved in the development and delivery of research studies. Members of the public can also access the training courses. All of the courses on the national training programme have attained the quality mark for accredited Continuing Professional Development (CPD) standards, with the exception of some courses provided by external trainers.
- **Clinical Trials Units (CTUs):** a Wales wide service funded through Health and Care Research Wales which provides practical support and advice to researchers in all aspects of a clinical trial from design, conduct and analysis through to reporting and dissemination. They offer methodological advice and support to clinical teams, both in designing new trials and in applying for grants. They also support and mentor researchers with their initial research ideas, as well as mentoring researchers who have received fellowships.
- **Research Design and Conduct Service (RDCCS):** supports staff working in social care and the NHS in developing research projects for public benefit as well as improving the health and wellbeing of the people of Wales. The all Wales service, funded by Health and Care Research Wales, provides guidance and advice to enable researchers to both assess the potential of an idea and to develop a study or trial idea effectively up to the point of application for funding. Support includes advice on well-constructed funding proposals, sound methodology and study design and more general advice on how to put together effective costings that will account for all resources required throughout the trial.
- **Other examples of support for researchers in Wales:**
 - Bangor University research mentorship programme pilot and the College of Human Sciences is in the process of developing a clinical academic

pathway, incorporating a clinical academic programme and a clinical improvement programme.

- The Community of Scholars in North Wales hosted by Bangor University is a collaboration with Betsi Cadwaladr University Health Board and it aims to create a pathway to research, developing applied health research across North Wales through networking clinicians and academics, facilitating research collaborations, developing grant writing skills in applied research, research leadership and developing capacity and capability in applied health research.
- Various research networks funded through Health and Care Research Wales, as well as through independent hubs such as Stroke Hub Wales which aims to create a step change for research in Wales and increase stroke research activity in Wales, including a focussed activity for training and education.
- Professional forums for research such as the Nurses, Midwives Allied Health Professionals (NMAHPs) Forum which is a diverse forum with around 70 professionals with a major work stream on education and training- linked to providing information about training and development opportunities and career pathways.
- The Centre for Allied Health Professions Research Forum (CAHPR) which is being rejuvenated in Wales includes an objective to develop the scale, depth and quality of AHP research through skills development and strengthened opportunities for research-oriented career progression.
- Pharmacy Research Wales has developed a strategy to develop a lasting culture within the pharmacy professions which will create a step change improvement in the quality and quantity of research that influences practice and policy to benefit the health of the people of Wales and beyond. The strategy implementation group (RSIG) is scoping, signposting and lobbying for increased access to research training to enhance research careers and have also been instrumental in developing a research methods module run by pharmacists.

8.1 Opportunities, funding and support received by health and social care researchers in Wales

Health and social care researchers in Wales access a wide range of support for their research careers. The 186 respondents from the survey had received a wide range of opportunities, funding and support from a variety of sources. The most common support they had received were:

Research training: for example, Introduction to Research training, Good Clinical Practice (GCP), Research Methods, Informed Consent, Essentials of Clinical Research; and this training had been received through the Health and Care Research

Wales training programme, from HEIW, their employing organisations (higher education institutions, NHS organisations) and through the RDCS.

Support for PhDs and Masters: this includes financial support to cover course fees or bursaries received by survey respondents, either in full or in part, for example, through mechanisms such as PhD fellowships. This support for PhDs and Masters came from NIHR, Health and Care Research Wales, HEIW, their employing organisations and other funders such as Wellcome/ CRUK.

Health and Care Research Wales Funding: although this will feature in the support above also, other specific support from Health and Care Research Wales included RTA, Research for Patient and Public Benefit awards, health and social care research fellowships and support from the Support & Delivery Learning & Development fund.

Post-doctoral fellowship/ programmes support received from the Wellcome Trust, the MRC, and the Stroke Association, as well as some smaller charities and RCBC support in the form of 1st into research, PhD fellowship, post doc fellowship and support from their Community of Scholars.

Other forms of support which were frequently cited included leadership courses, attendance at conferences and events, study leave, small grant funding, support from infrastructure groups such as the RDCS and CTUs, research placements and secondments.

Only 2 respondents noted that they had received any research mentoring and 34 respondents (18%) noted that they hadn't received any support at all in developing their research career. Some of the respondents to the survey said:

- *I haven't had any funding, support or training in my current role. My background in research has enabled me to act competently in a research capacity as part of my current role. However, I have had to squeeze these activities in alongside my routine diagnostic work which has been very difficult.*
- *I did an academic placement which opened my eyes to the difficulties surrounding getting into research. I would love to be involved with research but the opportunity isn't there.*
- *Since joining my current employer, the support I have had from the organisation, my line manager, truly amazing colleagues and mentors has been second to none. It is also aligned with my professional development. I have recently completed an internal research leadership programme, have a formal mentor and am actively supported and encouraged to develop myself and others.*

8.2 Employing organisation support

Of the 186 respondents to the survey, 70 (38%) of them felt that they had received support from their employing organisation, with 48 (26%) feeling that they hadn't received any support, and 30 (16%) not answering this question. Another 38 (20%) felt that whilst their employing organisation is supportive of their research careers in principle, this doesn't translate into practice with no funding or investment and employers not releasing staff for protected time even when this has been secured. Support from employers in this context was described more as luck and very dependent on interested individuals, departments etc. rather than an organisational culture. Research in this way, is often being conducted by staff in their own time, leading to a poor work life balance. Some of the respondents to the survey said:

- *Yes. As an HEI employee I have access to a lot of opportunities for research training and career development and am encouraged and supported to develop and collaborate on funding applications and supervise research students etc. It is in my job description and so forms part of my PDR and other career development processes*
- *Whilst undertaking my post-doctoral [research] secondment, my substantive post in the NHS was placed on the risk register without my knowledge. I was verbally informed towards the end of my secondment that I no longer had a [clinical] job. Then after involving my trade union representatives, I was permitted to return to the organisation on a lower grade and less skilled job description with protected pay.*
- *Not really. Research in our department is not seen as a priority where teaching is paramount due to the income stream. There is some support for research across the university but this is not focussed in the colleges where there is support needed. As a professor I have zero admin support, nor is there any admin support for the research endeavour in the department at all. My time could be much more usefully spent if there was a small amount of admin support. All the staff in the department are overwhelmed by their teaching commitments and so are unable to develop their research skills although the university expect senior staff to have conducted research. Staff wait until they are senior before undertaking their PhD by which time they are past the time when they are able to establish a research career.*
- *Not particularly. I found undertaking research was like trying to get into a locked room without a key. Once I had found a few people who were willing to guide me things improved but otherwise I still felt that I was very much left on my own and getting guidance was onerous. This was not a great start to a research career and has put me off undertaking further research. Equally it was hard to take the time to finish the research as I was working full time and despite having been given the time to do the research, there was no backfill to my work role and so the research became an additional pressure.*

Some of the research funders interviewed through this review are mandating the support they expect from the employing organisations before, during and after a

personal development funding award and this may also help in developing a supportive environment for researchers.

8.3 Opportunities useful for the future

When asked what would be most useful in terms of training and development opportunities in developing your research career, 26 suggestions were provided by survey respondents, with the 14 most commonly suggested shown in the graph below:

Figure 3: Most Useful Support for Research Careers (as requested by survey respondents)



Some of the respondents to the survey said:

- *The opportunity to become a clinical academic would be great. How to get there when there are no or very few posts is another matter. These posts also need to be sustainable and accessible for people from all walks of life - PhDs are not an affordable thing for most people (time wise or money wise), particularly once you have caring responsibilities. I don't feel that people should have to sacrifice their personal time to become researchers - it should be recognised as a proper job and paid accordingly.*
- *I think the most difficult part of my current situation is that I feel completely on my own and every step feels like enormous effort. Partially I think due to the fact that I do not know whom to contact, what next step to take and it all comes*

to lack of experience. So I think what would help me greatly is becoming a part of research team where I could focus on a smaller task that is part of the research to actually be able to experience real research environment. But additionally, I would be able to observe and learn from more experienced colleagues about all stages of research.

9 Gaps in training and development opportunities in Wales

Stakeholders and health and social care researchers provided a significant amount of feedback on the existing funding schemes, gaps in current funding opportunities and suggestions on how to fill these gaps. A summary is provided below but all comments can be found in Appendix 7.

Health and social care researchers in Wales really value the opportunity to participate in NIHR Fellowships and feedback suggests that this should continue although, it was noted that NIHR fellowship awards holders in Wales should have access to the same support surrounding the fellowship e.g. events. Also, feedback suggested that if Wales does continue to buy into NIHR fellowship schemes, this should be done consistently rather than on a scheme by scheme basis to avoid confusion about eligibility amongst researchers.

As well as this, feedback also suggested that Wales should continue to explore more opportunities for cross funder investment, with UK wide funders and matched funding across organisations within Wales.

Feedback on the management and nature of the existing schemes: was vast, with many comments on this. Some of the more frequently cited included:

- The need to make the funding schemes more attractive by enabling reasonable financial remuneration commensurate with salary reimbursements
- Offering a salaried PhD scheme- current scheme is just a stipend so no incentive to pursue a research career as for some, would have to take pay cuts and risk their substantive posts in the NHS/ local authorities
- The need to invest in research capacity in order to develop researchers
- Recognition that relevant research experience is just as important in terms of eligibility criteria than having a PhD- less focus on educational attainment and qualifications in accessing current schemes
- Schemes are not run frequently enough- only once every two years- which is a long time between fellowships
- Need more support for schemes which provide seed corn funding and small, start-up grants to help people begin and develop their research careers for example should re-introduce a national pathway to portfolio funding scheme

Feedback at a sector level: stakeholders and Welsh researchers fed back that there is a need to invest more funding in research careers in public health, social care, primary care and specifically within the NHS itself.

Feedback was particularly strong around the funding disparity between health and social care and the urgent need to invest in research careers in social care, for example developing targeted schemes and mirroring the opportunities provided by the NIHR with regards to their more recent funding schemes targeted at the social care sector (particularly towards local authorities) and the NIHR School for Social Care Research such as career development awards, studentships, developing research leaders' awards, practice-based research leaders awards, internships, training programmes etc. Whilst the NIHR schemes and the NIHR School for Social Care Research schemes are relatively new, they provide support at a range of levels in England and there are currently no comparable schemes in Wales.

Feedback highlighted that there is no research career pathway for social care practitioners and local authority staff to pursue research careers in Wales, either full-time or jointly within their existing role. It was also noted that the existing Health and Care Research Wales schemes for social care are not suitable for social care staff as they are not easily accessible for local authority staff. The PhD studentships have to be applied for by supervisors not individuals and to apply for the fellowships, you have to be employed by a higher education institution. There is a real need to build research capacity amongst the social care workforce and create schemes that enable novice researchers to develop within this context.

Feedback on targeted investment for various disciplines: there were many comments from stakeholders and health and social care researchers on this with the most frequently cited listed below:

- Schemes targeted at specific disciplines and generic schemes are not mutually exclusive and it would be helpful to have a mix of both
- There should be more opportunities, and targeted schemes or ringfenced funding for underrepresented disciplines such as social workers, NMAHPS, dentists, research delivery staff
- There a perception that medics have a strong clinical research career pathway and more funding streams, with limited opportunities and pathways available for non-medics

Feedback relating to stages of research career: there were also many comments on this with the most prominent listed below:

- Need to invest more funding across all stages of research careers from pre-doctoral, doctoral, post-doctoral (early and senior) right up to Chairs

- However, there were particular areas in the research career pathway that were frequently cited, particularly pre-doctoral and the more senior opportunities up to Chair- i.e. either end of the research career pathway.
- A significant gap was highlighted at post-doctoral (early) level, namely at mid-career stage, at which point researchers 'float around' or 'fall off a cliff.' The expectation is that once a researcher has completed a fellowship, they then have the expertise needed to develop and win grant funding to become an independent researcher and often this isn't the case. At this point, researchers really need further support, some structure, good training and mentorship, and investment in intermediate fellowships
- Transitions between career stages are a danger for researchers and support at these points is really important. There is a challenge in transitioning between different stages of a research career, a point which can be very difficult to navigate and it is perceived that it's at these times that the attrition rates are particularly high with Wales often losing people. There are challenges and barriers at these critical time points and it is really important to have the right advice at the right time e.g. through mentorship and a supportive environment as often researchers fall through these gaps.
- Bridging funding for transitions is likely to be a positive way of helping to provide support during these critical time points.

Opportunities for all: the key message from all this feedback from stakeholders and health and social care researchers on the existing funding schemes, gaps in current funding opportunities and suggestions on how to fill gaps is that:

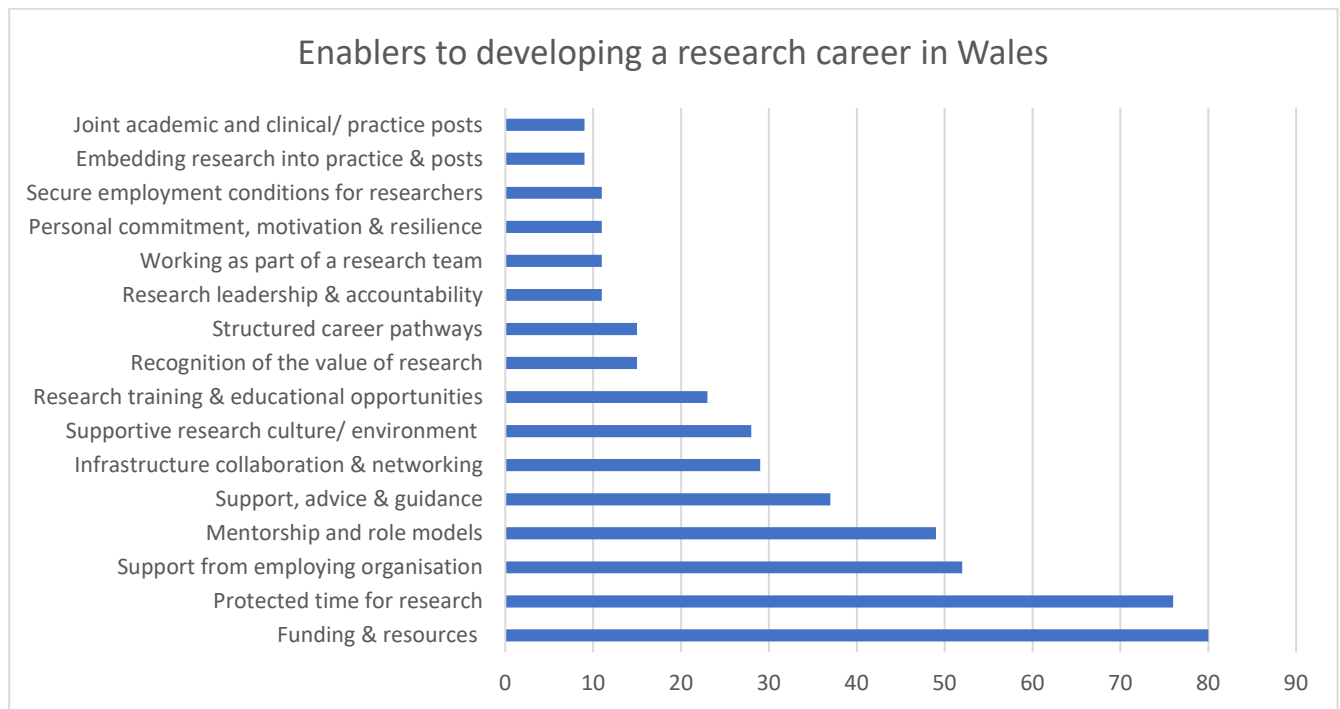
Research funding opportunities should be provided for all disciplines, across all sectors and at all stages of the research career pathway.

Parity of opportunity is considered to be really important, as well as being flexible, responsive and being aware of the challenges as they evolve, whilst identifying solutions at different points in time.

10 Enablers to developing a research career in Wales

In total, 55 enablers to developing a research career were cited from both stakeholders and members of the health and care research community. The most commonly highlighted enablers are shown in the graph below:

Figure 4: The Enablers to Developing a Research Career



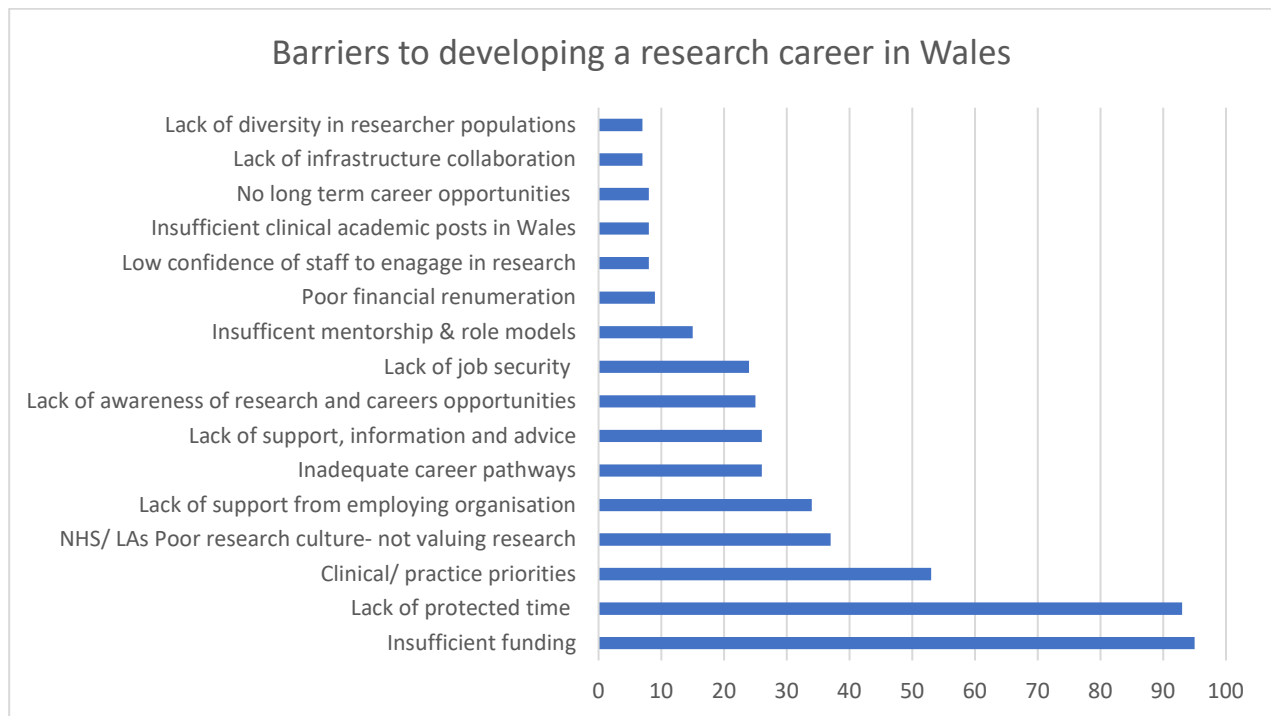
Some of the respondents to the survey said:

- *Protected time for research...Seeing research as part of our jobs instead of being an add on. Seeing research as 'real work.'*
- *Recognition that [research] is of value to the clinical floor and not just an abstract 'nice extra'; then other things would come from that - time, resources, backfill, course fees etc.*
- *Embed a culture of research and evaluation in all aspects of care. To role-model the value of engaging in formal research for the benefit of the local citizens, clinicians/researchers and service. To demonstrate a career path in true, meaningful, integrated clinical based research.*

11 Barriers to developing a research career in Wales

In total, 59 barriers to developing a research career were cited from both stakeholders and members of the health and care research community. The most commonly highlighted barriers are shown in the graph below:

Figure 5: The Barriers to Developing a Research Career



Some of the respondents to the survey said:

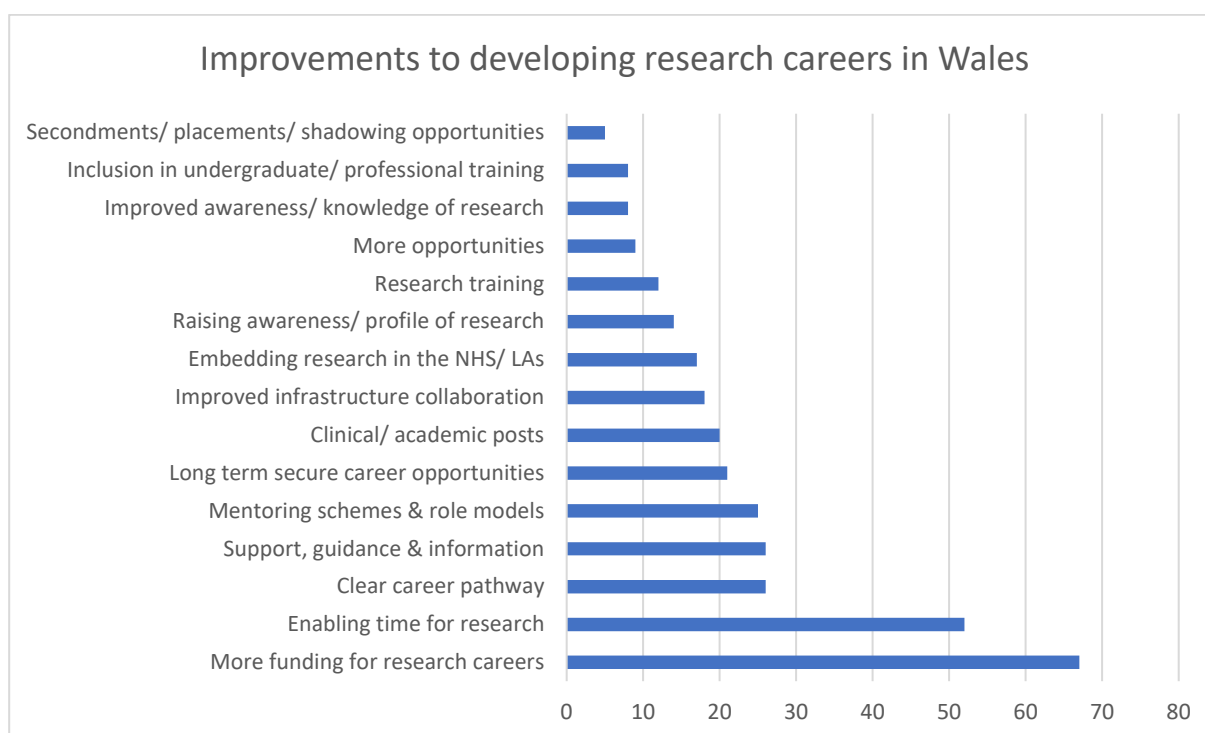
- *Having to keep looking for funding. As a clinician my research interests aren't taken into account at all. If I worked as a part time lecturer I would be visible and progress in my clinical and lecturing career. With a doctorate, I am still seen as just a midwife. As I work part time, I was once informed that I could not even be core in my preferred area of clinical practice - the fact that I worked as a full time PhD student didn't seem to count for anything. I feel it has slowed my clinical progression down and I am not taken seriously...*
- *A culture that views research as an 'add on' but not essential, and ALWAYS second to clinical care. This results in lack of time, lack of financial support, and lack of recognition.*
- *Lack of value placed on research. Research activities not seen as proper work. A lack of resources - funding, facilities, time.*
- *Funding, acceptance onto the course, finding mentors, management not understanding your role and the benefits that learning can have on your role/career and they say you don't need it.*
- *A lack of integrated clinical and research roles and career pathways for non-medical health and social care professionals. I had to choose between pursuing a clinical career or moving full time into research*
- *The extremely competitive funding and job environment with only short-term contracts available, even when successfully securing prestigious funding. The university does not offer longer term posts even after securing such funding. Job precarity and lack of long-term prospects are demoralising and very stressful for ECRs.*

- *The employment model, as the short-term contracts are STILL a problem and aren't conducive to retaining good researchers/developing PI or CIs. If an individual's contract falls short of a grant funding application, they can't be listed as a PI which is very unfair and not conducive to building a research career.*

12 Improvements to the research career pathways in Wales

In total, 58 suggestions were proposed to improve research career pathways in Wales, cited by both stakeholders and members of the health and care research community. The most commonly highlighted improvements are shown in the graph below:

Figure 6: Improvements to Developing Research Careers



Some of the respondents to the survey said:

- *Be braver with the funding models to make it easier to get on the ladder and begin training. Stipends that do not even cover Agenda for Change Band 1 roles are not appropriate for staff whose base salary is considerably more.*
- *Invest more in individual schemes to offer a salary buy out at whatever banding. Facilitate bridge building between HEIs and HBs to offer joint appointments rather than the complex ad hoc arrangements that currently exist.*
- *Time is also very important, releasing staff for one day per month to undertake projects is not sufficient. It sets them up to fail so appropriate time release or secondments is required, providing them with the necessary time from clinical duties to focus. Staff won't want to do work outside working hours, there needs*

to be a balance work-life and there is currently a requirement to do a lot of research activity outside working hours.

- *More work is needed with health boards to allow time for research. This can be difficult, particularly during the current pandemic, but if there was support it could be done.*
- *More posts, more clinical academic pathways for ALL staff, nurses, AHP, medical students and doctors.*
- *Change the culture and incentives to ensure that mentoring and supporting others is a valued and recognised contribution to the research effort.*
- *Longer terms contracts, including permanent contracts to provide better job stability. This is not impossible to achieve and needs to be something that funders and higher education institutes actively work towards. We have a lot of very skilled early career postdoctoral researchers and the current way things are done leads to excessive mobility and loss of these skills from Wales.*
- *Future improvements could be strong links between universities and professionals in practice. [Clinical academics] provide an excellent link between research and practice.*
- *Greater collaboration between different sectors. Joint funded posts (clinical and academic).*
- *A working environment where research is deemed part of the job, and not an adjunct or supplementary role. An environment where active research is encouraged and supported by all levels of management...*
- *We need to maintain the momentum of COVID, be central in the hospitals, be visible, be part of standard care.*
- *We need to utilise the enthusiasm of the general staff who thoroughly enjoyed being part of research during the pandemic. Already I feel like this being neglected.*

The ten most frequently cited improvements which stakeholders and health and social care researchers believe would help to facilitate a research career are explained in more detail below.

12.1 More funding for research careers

The need to invest additional funding and resources in research career pathways in Wales has featured heavily in this review with funding and resources being the most frequently cited improvement and the most cited enabler by stakeholders and members of the health and care research community, whilst insufficient funding was the most frequently cited barrier. The gaps in funding opportunities and career pathways could be addressed with additional investment and a significant number of suggestions have been provided in terms of what could be improved to enhance the research career pathway in Wales (see above).

What has been highlighted through this review is that Wales doesn't currently have sufficient funding to provide an all Wales national career pathway, for all stages in research careers, in all sectors, and for all disciplines. Insufficient funding was specifically highlighted by stakeholders in social care who noted a funding disparity between investment in research careers in health and social care, although this has not been quantified through this review. Other areas specifically highlighted were insufficient funding in primary care, particularly in dentistry and a lack of investment in research by NHS organisations and local authorities. Many stakeholders and health and social care researchers also noted a lack of parity in funding between disciplines, specifically between medics and other health professions such as nurses, midwives and allied health professionals.

Stakeholders and health and social care researchers have suggested that more funding needs to be invested in research careers in Wales to address the gaps in the career pathways and the associated support available such as a package of support alongside the funding opportunities to provide support, advice and guidance to researchers.

There are currently limited budgets in Wales to invest in research career pathways and the significant funding disparity between NIHR in England and Health and Care Research Wales is perceived to be vast, with health and social care researchers noting that there are less opportunities for researchers in Wales. Feedback was based on the need to achieve greater parity and equity of funding in terms of level of investment in Wales and this needs to be quantified and addressed if we are to attract and retain researchers.

With additional funding and investment in research careers, many of the enablers highlighted in this report could be enhanced, and many of the barriers addressed such as funding for protected time, mentorship schemes, funding for the provision of a package of support and guidance, training opportunities, the provision of appropriate financial remuneration and employment security for researchers, and more joint clinical/ academic posts. More funding could enable research leadership posts and dedicated research posts in NHS/ local authorities, could fund an infrastructure to support research careers, including through research networks and communications packages to raise awareness about funding opportunities.

Developing research careers, particularly in securing and investing additional funding to support this, is a long-term ambition and many of the enablers, barriers and suggestions in this paper have been an issue for many years and will likely take some time to improve. Stakeholder feedback suggested that a long-term strategy for enhancing research careers would be a really good way of developing research capacity and capability among health and social care professionals in the future.

12.2 Enabling time for research

The need to enable protected time for clinicians and practitioners to do research in Wales has also been a key theme in this review with enabling protected time being the second most frequently cited improvement, the second most cited enabler by stakeholders and health and social care researchers and lack of protected time being the second most frequently cited barrier.

Stakeholders and health and social care researchers have suggested that the development of systems and processes for enabling more protected time for research is absolutely critical in enabling research careers. This review has highlighted that there are people with the desire and skills to do research but they need time and funding to buy out their time and provide backfill to enable health and social care professionals to be released, ensuring adequate staff cover and staffing levels to facilitate this. It was noted that it is particularly difficult to secure protected time for research in certain sectors e.g. primary care and social care and some stakeholders and health and social care professionals also reported experiences of trying to support researchers where executives, directors and managers in the NHS/ local authorities have been unwilling to allow staff to be released from their role to pursue research for an agreed duration.

Having schemes to protect time such as the Health and Care Research Wales NHS Research Time award is very helpful as this provides a financial reward to clinicians to protect time to do research. However, much more is needed to enable researcher development time as the scheme is so competitive, in high demand and doesn't cover social care. Making time available by including research in job descriptions and job plans is important, however stakeholders and health and social care researchers have suggested that this needs to go further as time needs to be protected for all health and social care professionals; the inclusion of research in job descriptions needs to be recognised, taken seriously and implemented consistently across health and social care, along with a mechanism to monitor this across the organisation. Stakeholders and health and social care researchers also fed back that it is critical that we create the right conditions and environment to do research and having protected time is a major part of this.

12.3 Clear career pathway

Having very clear, structured, visible research career pathway for all stages of research and for all disciplines was also suggested by stakeholders and health and social care researchers as a suggested improvement to help develop a research career.

Feedback from stakeholders and health and social care researchers suggested that offering a coherent package of support and a clear pathway would be really helpful in joining up all the research career opportunities in Wales as a coherent offer. A clear and visible research career pathway would enable improved accessibility, making it easier for people to understand and comprehend the commitment required, as well as having a clear vision on what the next steps are to progress their careers and the longer-term career opportunities. Although research careers don't always follow a linear pathway and many career tracks are unique to individual health and social care researchers, it is widely considered that having a structured career pathway as an indicator, is a very useful way of presenting the opportunities available, giving direction and managing the expectations of those who would like to pursue a career in research.

Stakeholders and health and social care researchers feedback also noted that NIHR have created a clear structure so researchers can see where they are on that pathway and where they need to go- which is very helpful. It is suggested that Health and Care Research Wales could develop something similar.

12.4 Support, guidance and Information

Developing a package of support and guidance was also suggested as an improvement which would help researchers to develop their research careers. This was also considered to be a key enabler and lack of support for research careers was also highlighted as one of the barriers to developing a research career.

It was suggested that having a dedicated service to provide support and advice about research careers would be very beneficial where health and social care researchers can get information, independent careers advice and guidance, help with navigating the systems and signposting, toolkits, particularly for those who may not already belong to a research group, network or institution.

12.5 Mentoring schemes and role models

Many stakeholders and health and social care researchers have suggested that the provision of mentoring schemes and access to role models, would significantly improve the support available to develop research careers. Also being one of the most cited enablers, research mentors were highlighted as very important and critical to individual health and social care researchers when developing a research career. Mentors are able to provide support and guidance and explain the research career pathway so it's easier to understand, providing help to navigate complex systems. Mentors are also able to provide support at all stages in researcher careers- from an early stage, for junior researchers but feedback suggests that senior researchers equally benefit significantly from research mentors too.

Stakeholders and health and social care researchers acknowledged that there are existing mentorship schemes in Wales, particularly provided within higher education institutions. Many of these existing schemes are in very high demand and often there are more mentees than there are mentors. The Learned Society of Wales- Higher Education Funding Council for Wales partnership includes pan-Wales mentoring schemes for researchers at all career stages. Whilst these schemes are in their early stages, as they develop, they will provide significant opportunities and real value to researchers throughout Wales. There are also UK wide mentoring schemes which Welsh researchers have access to, for example, the Academy of Medical Sciences mentoring programme which provides post-doctoral and independent biomedical health researchers with career development support; and Broadening Horizons, launched in 2020 with funding from the Wellcome Trust, which is a cross-sector mentoring programme designed to support, develop and empower early-career researchers who are interested in translational research for impact on health. However, existing mentoring schemes across Wales are insufficient in number and vary greatly, being based on different models (for example the Academy of Medical Sciences endorsed OSCAR model) and they may have varying degrees of quality as research mentorship is very niche. Having the right mentors in research leadership positions is also critical. There is perceived to be a lack of mentors in Wales, as well as a lack of diversity in available mentors e.g. covering all disciplines. There is also a view that mentorship isn't valued or recognised within a workload model.

Role models are also considered to be important, particularly for areas where there is less research capacity, for example in social care and role models for nurses, midwives and allied health professionals is important for individuals who are thinking of starting a research career to see others having achieved this to inspire them.

It was suggested that the research mentorship schemes across Wales need reviewing and a standardised model should be developed to facilitate the set up and maintenance of high-quality mentorship schemes. Through the review, there is a need to ensure that mentorship schemes are established for all disciplines across the whole of Wales, that a sufficient number of mentors are identified to enable the schemes and that mentoring is sufficiently valued and recognised as a core activity.

It was also suggested that research mentorship across Wales would be improved by the development of a unified all-Wales approach and that a centralised team could have a role in doing this for example, mentorship schemes could be reviewed and a standardised framework for research mentorship could be developed.

12.6 Long term secure career opportunities

Having longer term career opportunities for all disciplines is considered to be a significant improvement which would help health and social care researchers in developing a research career. Having secure employment conditions for researchers was also considered to be an enabler, with lack of job security and no long-term career opportunities featuring as two of the barriers to developing a research career. Feedback from stakeholders and health and social care researchers indicated that there are few secure dedicated posts for researchers in Wales, resulting in a lack of opportunities.

There was an acknowledgement amongst stakeholders that universities are committed to providing long term, secure employment for researchers and try to find creative ways of providing this but it can be very challenging as they are severely restricted due to financial constraints. One stakeholder suggested a potential solution to this is flexible contracting through the provision of a Welsh HEI employment contract which would be a national employment contract enabling researchers to move between HEIs. This would benefit employers and provide researchers with the opportunity to broaden their experience and knowledge. Another stakeholder suggested implementing Wales wide redeployment schemes. A further suggestion highlighted the need for more core funding for researchers and the use of financial modelling to enable core research posts within HEIs, funded through a mix of grant and core funding.

It would be helpful to see some senior level posts with responsibility for research in the NHS and in local authorities to provide research leadership (e.g. Directors of Research, Consultant Researchers, Associate Director of Nursing for Research) demonstrating a commitment to research, providing role models to lead on R&D and helping to embed research into service, as well as providing a research career pathway in the NHS/ local authorities and longer-term career opportunities. Examples of posts like this include consultant level researchers and posts such as the Associate Director of Nursing for research.

For similar reasons, having career opportunities in academia is also very important, for example joint clinical/ practice academic posts, and academic leadership posts. Amongst stakeholders, there is a perception that there has been a general disinvestment in academic careers over the last 10 years, particularly in universities, which has been gradually withdrawn. Stakeholders referred to the fragile academic population as a result, with researcher retention and sustainability being a huge issue and one stakeholder highlighted the need to develop a strategy around sustainability in the academic research population for the future. Over time, senior researchers have left Wales and moved to other academic institutions across the UK and globally, without being replaced. Examples of where this has happened includes population health, social care and primary care. There are also areas where there is limited

senior academic leadership or posts for researchers in Wales for example stroke, critical care and in adult social care.

As well as the perceived need for long term career opportunities, stakeholders and health and social care researchers highlighted the importance of providing the right employment conditions for researchers in higher education institutions, particularly the provision of permanent, secure employment, and this was considered to be really important. Stakeholder feedback suggested that we need to explore different ways in which researchers could become employed to provide some security and stability amongst our researcher population. The short funding cycles in research have led to many researchers being employed in higher education institutions on fixed term and temporary contracts which gives them limited job security, making them more vulnerable and more susceptible to poor treatment.

Working with the universities in Wales to invest in learning and development and explore solutions to enable longer term appointments or permanent contracts for people who work at the research centres and units was suggested as a way forward, for example exploring the possibility of providing core funding for research staff. Whilst there will always be a transient element to research and its workforce, there is a huge need to also provide some stability.

12.7 Clinical/practice academic posts

Many of the stakeholders and health and social care researchers highlighted that a key improvement would be to develop more clinical/ practice academic posts as part of the research career pathway. This also features in the enablers for developing a research career and insufficient clinical academic posts in Wales was also identified as a barrier.

A clinical academic is a qualified healthcare professional who also works in academia, typically in research, teaching, or both. At present, there is no direct equivalent of a clinical academic post for social care professionals.

These kinds of joint posts which bridge clinical/ practice and academia are perceived to be relatively uncommon in Wales. Only 2% of the survey respondents had a clinical academic post and only 7% were clinicians or practitioners with an honorary research contract with a higher education institution. In cancer for example, there hasn't been a clinical academic post for 13 years.

Some of the health care professionals described their frustration at this as often the incentive to undertake research is to improve clinical practice, yet the system doesn't seem to easily accommodate genuine joint posts. Clinicians who had progressed on the research career pathway had become demotivated, feeling that that they had to

choose to either be clinical or academic, along with all the risks and changes in employment terms and conditions that entails. There were examples of healthcare professionals who had left their clinical posts for a research secondment, only to find that they had lost their substantive clinical employment post and/or had to return to a post of a lower grade. One healthcare researcher noted that if there were more clinical/ practice academic posts, it would revolutionise patient care.

Having more clinical/ practice academic posts would provide a greater incentive for health and social care professionals to do research, enable greater research career development opportunities, but would also bring practice closer to academia and in developing research that meets health and social care priorities and service/ practice need, thereby creating an enhanced ecosystem for research. These posts could help create a research culture in the NHS/ local authorities and would benefit the higher education institutions in cases where researchers and lecturers have become separated from practice, sometimes for many years. It would also enable greater collaboration between the NHS/ local authorities and academia.

12.8 Improved infrastructure collaboration

Enabling infrastructure collaboration in research is also considered to be an improvement to help health and social care researchers in developing a research career. Feedback through this survey has highlighted the importance of improved collaboration at a number of levels:

- at a discipline level, enhancing multi-disciplinary approaches
- across different sectors, for example health and social care
- between organisations, for example feedback suggesting that higher education institutions should collaborate more closely and not compete with one another
- across organisations, particularly between the NHS, local authorities and higher education institutions. Feedback suggested partnership working between the NHS and universities isn't strong and that to enhance this, clinical/ practice academic posts should be created with joint job planning, joint R&D strategies and a Statement of Intent/ MoU with key sets of principles for supporting researchers and improving research and care
- across the Health and Care Research Wales infrastructure and infrastructure groups such as NHS organisations, Clinical Trials Units, the Research Design and Conduct Service

Bringing together the key stakeholders with a responsibility for supporting research careers for example Health and Care Research Wales, HEIW and Social Care Wales is extremely useful and enabling support for research careers as a collective responsibility.

Feedback has suggested that in order to significantly enhance research careers, a systems-based approach is needed and that there is a role for Health and Care Research Wales to provide the bridge to facilitate this. Suggestions included that Health and Care Research Wales could have a central role in facilitating collaboration and networking such as a national forum dedicated to enhancing research careers to enable strategy development, information sharing, best practice sharing and networking.

As Wales is small, if collaboration and networking could be improved upon and incentivised and harnessed, there could be a research power house in Wales. Good links and buy in between all partners, namely the NHS, local authorities, higher education institutions, professional bodies, funders and government is absolutely critical in developing research capacity and capability in Wales.

To make progress, this would require high level leadership in Wales to lead an improvement programme and facilitate national and UK wide collaboration with key partners. Research leadership was also highlighted as one of the enablers to developing a research career. Research leadership is required as part of a systems leadership approach to bring the key stakeholders together, namely Health and Care Research Wales, HEIW and Social Care Wales. It was suggested that leadership could be provided through Health and Care Research Wales as part of a suggested central role in facilitating collaboration.

12.9 Embedding research in the NHS/local authorities

Embedding research in the NHS and local authorities was suggested as being critical to creating an environment which facilitates the development of research careers. Some of the related enablers in this review include support from the employing organisation, having a supportive research culture and recognition of the value of research and embedding research into practice and posts. Similarly, related barriers to developing a research career include the NHS/ local authorities having a poor research culture where research is not encouraged or enabled, and lack of support from employing organisations.

Demonstrating the benefits and value of research and its link into service/ practice is critical in showing the impact on services, care, practice and quality improvement. Developing a research culture is also important in embedding research into teams, increasing exposure and raising the profile of research, enabling protected time, facilitating research to feature in job descriptions and encouraging the use of evidence. Research should be 'everybody's business' as although not all health and social care professionals will become researchers, there should be a level of research awareness across health and social care organisations. Supporting research as core business in health and social services is critical to creating the right environment for

researcher development and it demonstrates to the health and social care workforce, which will include future research leaders, that research is a priority.

It was suggested that embedding research in the NHS/ local authorities should be integrated at board level, with researcher leadership from NHS/ local authority executives, with the full integration of research into services and practice. Research should feature heavily in annual plans for the NHS and local authorities and it was also suggested that there should be research targets for organisations. This will help the NHS/ local authorities to attract and retain health and social care professionals with a research interest and lead to a culture change.

12.10 Raising awareness/ profile of research

Stakeholder feedback has suggested that there is a real need to raise awareness and the profile of research and research careers, particularly in under-developed areas such as social care. There is a lack of knowledge and awareness of research career development opportunities and a need to establish a programme of work to identify how health and social care professionals can be made more aware of research and research careers. Having a communications package to support this work would be helpful in raising awareness.

To assist in this, many of the stakeholders suggested that it would be useful to develop a unique selling point for research careers in Wales. It is unlikely that Wales would be able to compete in terms of quantity and breadth of research career opportunities with some of the larger UK wide institutions, therefore it is suggested that Wales needs a unique selling point to attract and retain researchers. Several stakeholders suggested that Wales has the opportunity to provide a nurturing research environment and a supportive infrastructure, which should lead to attracting and retaining researchers to develop into the research leaders of the future. Another stakeholder suggested that in Wales, innovative ways of incentivising health and social care professionals could be adopted for example the development of a qualification in health and social care research.

13 Recommendations for the future: A new vision for research career pathways in Wales

Strategy, funding and leadership

- 1 Develop a clear, structured, visible research career pathway for all health and social care disciplines, across all sectors and at all stages of careers
- 2 Invest more funding in research careers, to fill identified funding gaps in Wales, whilst quantifying the scale of disparity of funding opportunities for researchers across the UK, to enable the levelling up of investment

- 3 Review, assess and address the need for research capacity building and research career pathways in social care research in Wales, while addressing the disparity of opportunity between health and social care research
- 4 Health and Care Research Wales to develop a joint strategy and implementation plan, on behalf of Health and Care Research Wales, HEIW and Social Care Wales, for enhancing research careers in Wales which is overseen by an implementation group, including a vision for developing research capacity and capability among health and social care professionals
- 5 Health and Care Research Wales, Health Education and Improvement Wales and Social Care Wales should work together to support the enhancement of research careers through a collaborative leadership approach
- 6 Health and Care Research Wales should invest in a high-level leadership role to lead this area of work, raising the profile of research careers, co-ordinating national developments, Wales wide collaborations with key partners and facilitating UK wide collaboration
- 7 Continue to collaborate with UK wide funding partners, including government funding partners, research councils and charities to ensure training and development opportunities for Welsh researchers, enabling cross funder investment where appropriate

Infrastructure

- 8 Create an all Wales service to provide a package of support, guidance and training for health and social care researchers in developing their research careers for example through an integrated Health and Care Research Wales Faculty
- 9 Review the research mentorship schemes across Wales, with a view to enhancing the provision of mentorship schemes for researchers and developing a standardised framework as part of a unified all-Wales approach
- 10 Enable co-ordination of support for research careers across Wales, as well as enhanced collaboration amongst key stakeholders and infrastructure groups, to facilitate the development of research careers through a shared responsibility

Culture and ecosystem

- 11 Work with professional bodies and UK wide partners to consider opportunities for integrating research into professional training from an early stage
- 12 Explore mechanisms for supporting NHS organisations and local authorities to embed research into their strategies for staff recruitment and retention, and workforce development planning, enabling the development of a nurturing research environment for health and social care professionals
- 13 Support NHS organisations and local authorities to invest in support for research careers, investing in researcher development, protected time for their researchers, research leadership posts and exploring clinical/ practice academic posts

- 14 Work with universities to identify gaps in academic leadership, opportunities for joint clinical/ practice academic posts and explore solutions to enable longer term, secure employment opportunities for researchers

Communications and engagement

- 15 Develop a unique selling point for research careers in Wales as a vehicle to attract and retain researchers, for example, focussing on a nurturing environment for researchers
- 16 Develop a programme of work to raise awareness and the profile of research amongst health and social care professionals, their employing organisations and the regulators, promoting research careers in Wales, particularly in under-developed areas
- 17 Develop plans to monitor equality, diversity and inclusion data amongst the researcher population, publishing data reports and action plans to help facilitate the equal representation of all groups in the Welsh researcher population

Appendix 1

Terms of Reference for Project Steering Group: June 2021

Developing and sustaining career and training/development pathways for researchers and subsequent capacity and capability in health and care research in Wales: a review

1. Background and Context

Health and Care Research Wales (HCRW) and Health Education and Improvement Wales (HEIW) have initiated a joint project to undertake a review of the arrangements for developing career and training/development pathways for researchers thereby enabling capacity and capability in health and social care research in Wales.

The project will investigate current arrangements for developing capacity and capability in health and care research in Wales and make recommendations, if appropriate, for improvements to be considered by Health and Care Research Wales, Health Education and Improvement Wales and other funders/providers. The project will:

- a) Identify current capacity and capability development schemes and systems in Wales
- b) Compare provision in Wales with that in the other countries of the UK
- c) Explore what is known about the effectiveness of current provision in developing and sustaining capacity and capability in health and care research
- d) Develop a set of recommendations for the future in improving the arrangements for developing capacity and capability in health and care research

2. Purpose

The Project Steering Group will:

- Agree the Project Plan, including aims, objectives, scope, delivery (phases and key milestones), timescales and schedule
- Provide advice and guidance, monitor progress and ensure delivery of the project output, namely a final report with recommendations on the future for developing capacity and capability in health and care research in Wales
- Provide advice about changes to the project as it develops, helping to overcome any challenges to project delivery
- Review the project outputs at the key milestone points (roadmap of current capacity and capability development schemes and systems in Wales and

across the UK; analysis of feedback from stakeholders and researchers and summary of key themes) and provide advice on feeding into the final report

- Review the draft recommendations for the future development of arrangements for developing capacity and capability in health and care research and agree final recommendations for both Health and Care Research Wales and Health Education and Improvement Wales to consider
- Advise on communications and stakeholder engagement plans for the project
- Advise on any possible implementation issues for taking forward with HCRW and HEIW at the end of the project

3. Membership and Chairing

Membership will comprise representation from:

- Research Development Division, WG
- Health Education and Improvement Wales
- Higher Education Funding Council Wales
- Social Care Wales
- WG Workforce Policy
- Others

Appendix 2:

Funder Interviewees for Phase 1

Name	Representing	Date of interview
Michael Bowdery	Research & Development Division, Welsh Government	26/04/21
Nicola Melody	NIHR Academy	12/05/21
Julie Simpson	Scottish Government	13/05/21
Clive Wolsley Sorcha Finnegan Gail Johnston	Health and Social Care Northern Ireland	13/05/21
Julieanne Bostock Kay Nunns	Department of Health and Social Care	24/05/21
James Fenton	NIHR Academy	10/06/21
Noel Faherty	British Heart Foundation	15/06/21
Jennifer Anderson	Medical Research Council	17/06/21
Marjoelin Schapp	Cancer Research UK	17/06/21
Sara Marshall	Wellcome Trust	06/07/21

Appendix 3

Questions on Research Career Pathways for Funders/ Stakeholders

1 The Project

Health and Care Research Wales and Health Education Improvement Wales are undertaking a collaborative project to review the arrangements for developing career and training/development pathways for researchers thereby enabling capacity and capability in health and social care research in Wales.

As part of this project, we are specifically exploring how systems and pathways for training, career development and support for researchers work, examining whether they are fit for purpose and what improvements should be considered.

The project will investigate current arrangements for developing capacity and capability in health and care research in Wales and make recommendations for improvements to be considered by Health and Care Research Wales, Health Education and Improvement Wales and other funders/providers.

In order to inform the review, we would like to gather views from funders and stakeholders to obtain information and feedback on the opportunities and support they offer to the Welsh research community.

2 Your Feedback

The following section contains questions from which we would be grateful to hear your feedback. We are sending these questions to you in advance but will set up an informal interview with you to ask the questions and record the answers. The interview should take no more than 1- 1.5 hours.

We will be discussing the feedback with colleagues in RDD, Welsh Government and Health Education Improvement Wales as part of ongoing discussions around research career pathways in Wales.

About You

Question 1

Please provide details of your current organisation and your current role.

Training and development opportunities (If applicable)

Question 2

What research career training and development opportunities do you offer/ support? If none, please specify. If yes, are these opportunities open to applicants UK wide?

Question 3

How do you publicise the training and development opportunities you offer?

Question 4

Are these opportunities open to applicants in Wales? If yes, what level of interest/ applications do you receive from Wales and what is their success rate? Would you be willing to share data on your schemes with us on this?

Question 5

How frequently do you run the schemes to facilitate research career training and development opportunities?

Question 6

Have you ever evaluated the schemes you run to facilitate research career training and development opportunities?

Question 7

What do you feel has been achieved through the research training and development schemes you run? Please specify.

Question 8

Please describe the impact these research training and development schemes have had on developing research capacity and capability in the UK/ Wales.

Enablers and barriers to pursuing a research career in health and care research

Question 9

What do you think are the main enablers to facilitate health and social care professionals developing a research career? (recruitment and retention)

Question 10

What do you think are the main barriers to facilitate health and social care professionals developing a research career? How could these be overcome? (recruitment and retention)

Future improvements to enhance training and career pathways

Question 11

What future improvements could be made to enable health and social care professionals to develop a research career?

Question 12

How can we best develop research capacity and capability among health and social care professionals in the future?

Question 13

How can we best develop research capacity and capability among health and social care professionals across the UK?

Question 14

Please provide any other relevant information which has not been captured but you'd like to share

Appendix 4

Stakeholder Interviewees for Phase 2a

Name	Representing	Date of Interview
John Geen	NHS R&D Directors/ CTUHB/ Healthcare Scientists	11/06/21
Sue Bale	NHS R&D Directors/ ABUHB/ Nursing	17/06/21
Nigel Rees	NHS R&D Directors/ WAST/ Paramedics	28/06/21
Mererid Evans/ Libby Batt	NHS R&D Directors/ Velindre	30/06/21
Alisha Davies	NHS R&D Directors/ PHW	06/07/21
Leighton Phillips	NHS R&D Directors/ Hywel Dda	22/07/21
Charlotte Drury – Service Manager	Local Authorities/ Monmouthshire	16/06/21
Ioana Plesa – Workforce Development Manager and PQ Chair	Local Authorities/ Caerphilly	21/06/21
Sarah Bartlett	RICs/ Local Authorities/ Denbighshire	27/07/21
Phillip James	Cardiff Met	21/07/21
Steven Riley	Cardiff University	16/08/21
Sion Williams	Bangor University	22/07/21
Amanda Roberts- Jones & colleagues	Researcher Development Team, Cardiff University	28/09/21
Jayne Noyes	Bangor University	29/09/21
Andrew Westwell	Cardiff University	06/10/21

Kathryn Peall	WCAT	01/07/21
Gina Dolan/ Roiyah Saltus	RCBC	08/07/21
Paul Brocklehurst	Community of Scholars/ CTUs/ Dentistry	15/06/21
Jayne Goodwin	Nursing/S&D/ NMAHPs	07/07/21
Jane Hopkinson	NMAHPs (Cancer perspective)	21/10/21
Sarah Hiom	Pharmacy	17/08/21
Anne Freeman/ Prof Phillip James	Stroke	21/07/21
Ceri Battle	Physiotherapy	27/07/21
Kate Button	Physiotherapy	31/08/21
Nia Jones	Podiatry	16/09/21
Martin Elliot	Social Care/ HEIs	10/06/21
Donald Forrester	Social Care/ HEIs	15/06/21
Nina Maxwell	Social Care/ HEIs	05/07/21
Lisa Trigg	Social Care Wales	22/07/21
Sue Channon	RDCS	07/07/21
Kerry Hood	CTUs	15/07/21
Dr Harry Ahmed	Researcher	30/06/21
Matt Morgan	Specialty Leads	05/07/21

Appendix 5

Survey on Research Career Pathways for health and social care professionals

The Project

Health and Care Research Wales and Health Education and Improvement Wales are undertaking a collaborative project reviewing the training and career development pathways for researchers in health and social care research in Wales, working closely with Social Care Wales. We are examining whether they are fit for purpose and considering what improvements could be made. The outcome will be a set of recommendations to consider to improve research career pathways in Wales.

To inform the review, we would like to gather views from health and social care professionals and researchers at all stages in their career, to get feedback on the opportunities, support and experiences they have had in pursuing a research career, along with any suggestions for improvement.

Your feedback

If you are a health or social care professional with an interest in research, we would love to hear from you.

You may have an interest in research, have done some research in the past, may be in receipt of career development funding or a fellowship and/or have an ambition to become a researcher. You might be an early or mid-career researcher or someone working in practice who would like to pursue a research career. If any of this applies to you, we would like to hear your views and experiences.

We want to hear from health and social care staff across all disciplines including but not limited to, medical staff, nurses, allied health professionals, social workers, health scientists, paramedics, pharmacists as well as all non-clinical researchers and those working in public health, primary and social care.

This survey contains a short series of questions we would like to ask you which will help to inform future improvements in research career pathways. We will be discussing the feedback as part of ongoing discussions around research career pathways in Wales, although your responses will not be identifiable.

We would be really grateful if you could complete this survey by 12pm on Monday 26th July 2021. Many thanks for your time, much appreciated.

About You

Please provide details of your current employer and your role. Please also include information related to split posts between institutions e.g. a Higher Education Institute and the NHS/ Local Authorities.

- 1 What is the highest level of education you have completed?
- 2 Have you ever done any research? If yes, please answer questions 4-5 below
- 3 Please indicate how you would describe your research career so far?
 - Pre-doctoral
 - Doctoral
 - Post-doctoral (early)
 - Post-doctoral (senior)
 - Chair
- 4 How would you describe your current role in research e.g. Chief Investigator (of multi-centre or single centre trial), Principal Investigator (i.e. site lead of multi-centre trial), Lead Investigator or Co-Investigator (on other kinds of studies), Research Support and Delivery (Research Nurse, Research Assistant etc). Please also indicate approximately what proportion of your time is currently spent on research.
- 5 Do you have any future research career aspirations and if so, how do you plan to achieve them?

Training and Development Opportunities

- 6 What opportunities, funding and/or support, if any, have you had for research training and career development? Please describe the opportunities and support, including who provided it. If none, please specify.
- 7 Has your employing organisation provided you with a supportive environment to enable research training and development and/or career opportunities? Please describe, indicating strengths and weaknesses of your working environment.

- 8 What have you achieved as a result of these research training and development opportunities? Please specify the impact these opportunities have had on your career.
- 9 What career, training and development opportunities would you find useful in pursuing your research career in the future?

Enablers and Barriers to Pursuing a Research Career

- 10 What do you think are the main enablers to facilitate health and social care professionals developing a research career?
- 11 What do you think are the main barriers to facilitate health and social care professionals developing a research career?

Future Improvements

- 12 What future improvements could be made to enable health and social care professionals to develop a research career and develop research capacity & capability in Wales?
- 13 Would you be willing to be contacted to elaborate on any of the answers provided in this survey? If yes, please provide your name and contact details below.

Thank you for completing the survey. If you would prefer to discuss your feedback, please contact Helen Grindell by email to arrange helen.grindell@wales.nhs.uk

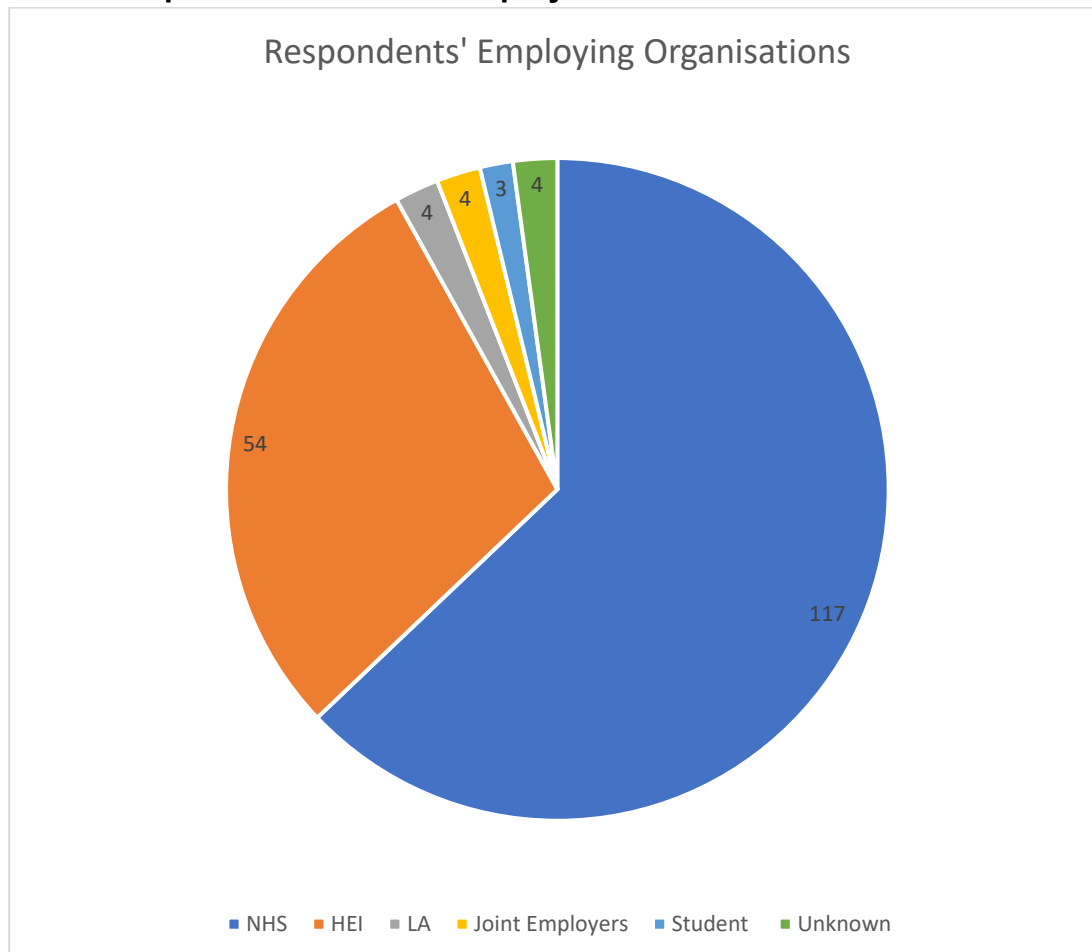
Appendix 6

Researcher Survey

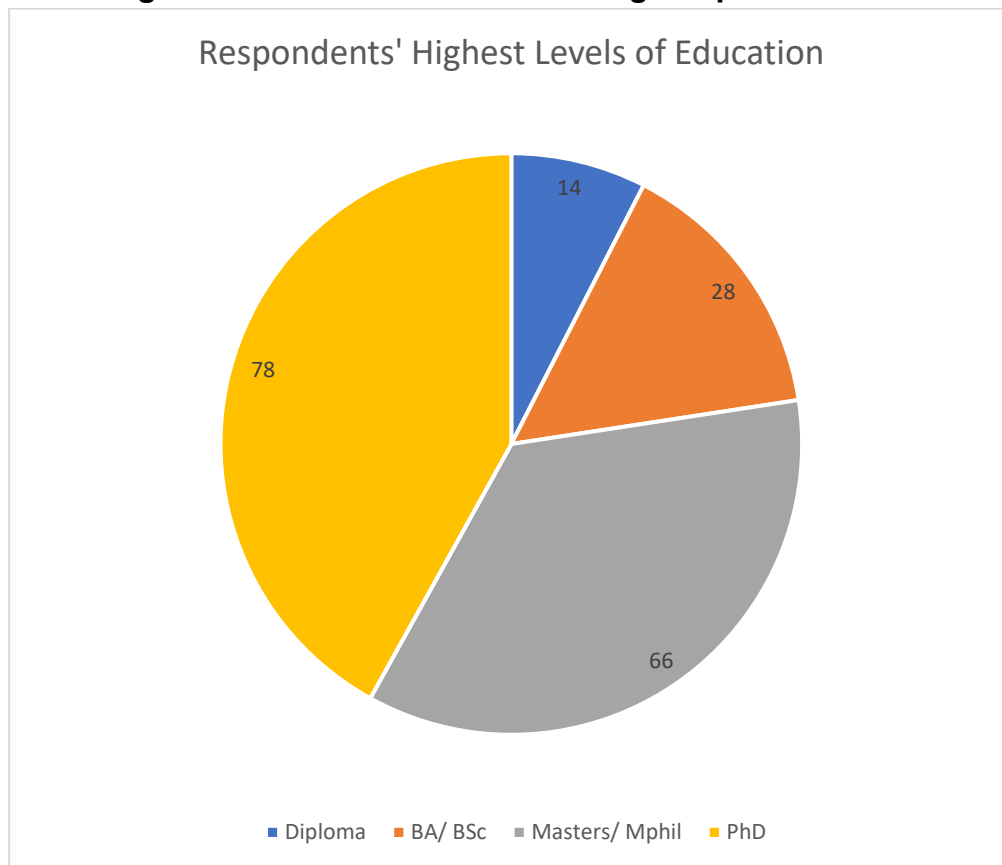
Phase 2b: Gather views from health and social care professionals and researchers

A survey was developed and circulated among the Project Steering Group (including HEIW and Social Care Wales), all the stakeholders interviewed as part of phase 2a, Health and Care Research Wales Centres & Units, Senior Research Leaders, Specialty Leads, R&D Directors and the survey was also promoted in the Health and Care Research Wales bulletin a few times whilst it was open. The survey questions can be found at Appendix 1. In total, the survey received 186 responses. Information about the respondents can be found in the diagrams that follow.

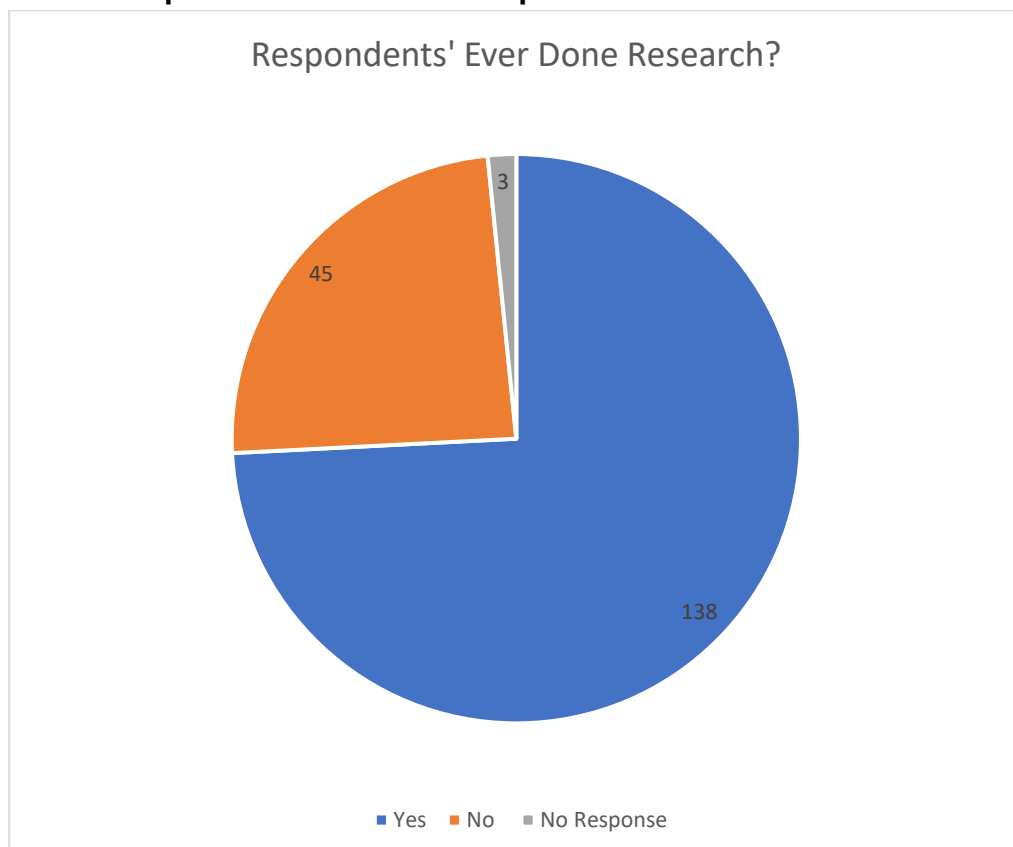
- **Respondents' Current Employers**



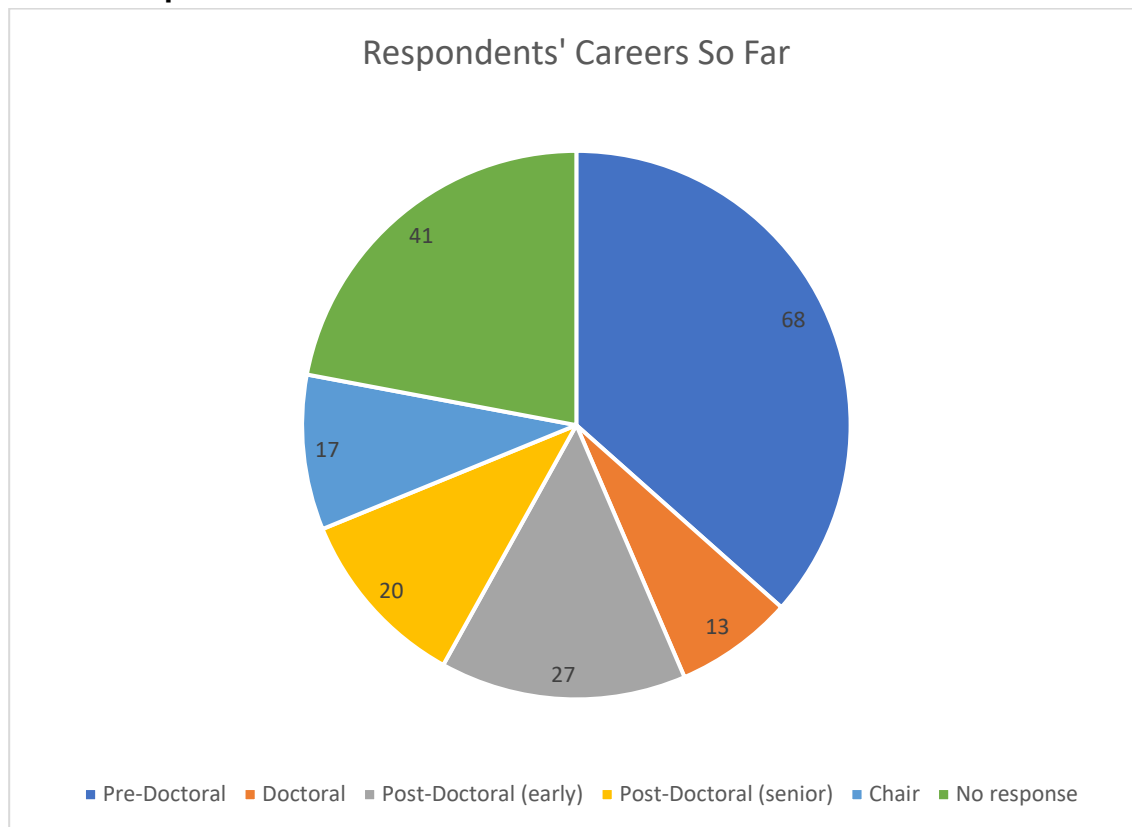
- **Highest Levels of Education among Respondents**



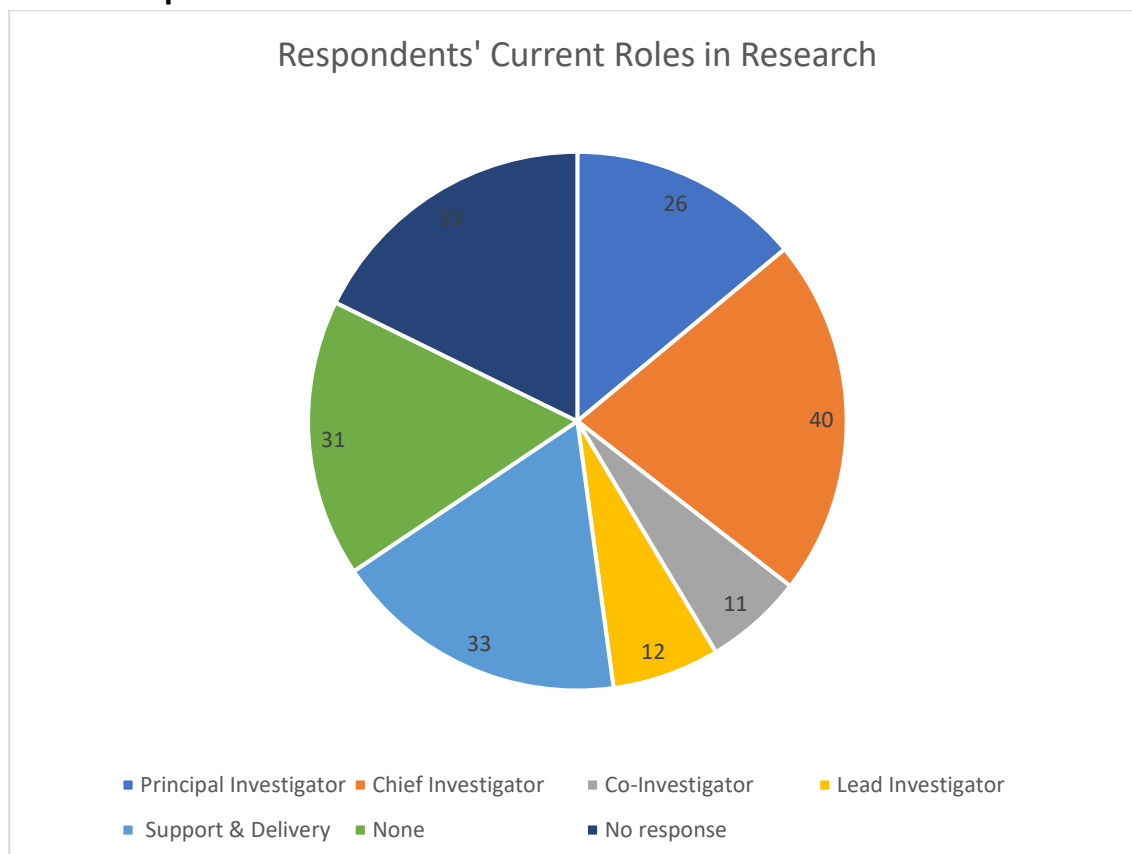
- **Respondents' Research Experience**



- **Respondents' Research Careers so far**



- **Respondents' Current Roles in Research**



- **Respondents' Future Career Aspirations**

Respondents had a wide variety of research career aspirations, with 45 cited, however the most common were to complete a PhD (n=23), to lead research projects (n=10), to complete a masters (n=10), continue to do research (n=9), obtain a joint clinical academic post (n=8), win grant funding (n=8), combine research into existing clinical practice role (n=7), access post-doctoral funding and opportunities (n=7), become a professor (n=6) and generate new knowledge in current field (n=5).

Appendix 7

Feedback relating to funding opportunities across the UK and partnership working

- Insufficient funding at present and inequity of funding in Wales compared to UK countries- should aim to achieve parity with England
- There are greater opportunities in England with more funding schemes and greater investment. Funding works in really long cycles and there is a disparity of funding between Wales and England, where Wales gets nowhere near as much
- NIHR career pathways seem much more sophisticated
- Participation in NIHR Fellowships for All: once you're awarded an NIHR fellowship, not much in place. In England, far more fellowship holders- more development events run in England and provision of support etc for people who hold fellowship, which Welsh award holders can't access. Need more agreements in place that would integrate Welsh NIHR fellowship holders more with English counterparts. Also, not clear when Wales is opting in and opting out of each programme, leading to confusion amongst Welsh researchers about what can and can't apply for
- More opportunities for cross funder opportunities, with UK wide funders and matched funding across organisations within Wales

Management and nature of the funding schemes

- Need to make the funding schemes more attractive by enabling reasonable financial remuneration commensurate with salary reimbursements
- Wales doesn't have a salaried PhD scheme - current scheme is just a stipend
- Need to support studentship funding schemes with salaries not stipends
- Need better funding models for staff remuneration in current schemes as stipends are not adequate for researchers
- Need greater flexibility in accessing funding schemes
- Need clear, straight forward application processes
- Would be useful to encourage more diversity in funding calls
- We need to develop research capacity as we are too focussed on research excellence. Research excellence is not how you develop researchers
- It is important to invest in research careers where there is less research capacity and capability to fund areas which need building up. National funding schemes based on research excellence need to run alongside local pump priming funding to develop research capacity and capability
- Recognition that relevant research experience is just as important in terms of eligibility criteria than having a PhD - there should be less focus on educational attainment and qualifications

- CRTA could be adapted and targeted for clinical research and delivery staff
- CRTA could be targeted at specific professional groups
- CRTA: doesn't include enough time- when the awards end, NHS staff just get absorbed back into the NHS- and the support has gone which leads to a waste of investment. Better to have 5-year support with a research groups
- Need to ensure and performance manage support from employing organisations, including for example NHS investments beyond the CRTA
- CRT very clinical focused, focuses on supporting senior researchers
- CRT people are expected to have a lot of research experience which disadvantages many
- Schemes are not run frequently enough- should be run twice a year. Funding is only available from HCRW is only once every two years which is a long time between fellowships
- Need to provide more long-term funding commitments
- Need more support for seed-corn funding and small, start-up grants to help people begin and develop their research careers
- Should re-introduce a national pathway to portfolio funding scheme
- Invest in PI development schemes
- Would be helpful to invest core funding for protected time in the NHS/ LAs
- Need more structured training to support fellowships. The fellowships are great, well supported but need more structured support around them
- Post-doctoral opportunities should have a less academic focus and should be focused on attracting staff at a clinical/ practice level
- The funding in Wales is not distributed across Wales as the awards are mostly won by C&V UHB
- RCBC is great, particularly the first into research elements, but the budget is low, with limited opportunities. Need more investment in RCBC and initiatives like it
- It is not always easy to work out eligibility criteria e.g. pharmacists can apply for- it's not static and seems to change year on year- and call by call which is not helpful.

Sector level feedback

- Public Health: more funding opportunities that are accessible for public health
- Social Care:
 - Funding disparity between health and social care and the urgent need to invest in research careers in social care for example mirroring the opportunities provided by the NIHR School for Social Care Research such as career development awards, studentships, developing research leaders' awards, practice-based research leaders awards, internships, training programmes etc.

- Develop targeted schemes or ringfenced funding for social care
- Can't use models for health and just open them up for social care. They have to be immediately relevant for social care staff
- The existing schemes are not suitable for social care staff as they are not easily accessible for local authority staff. The PhD studentships have to be applied for by supervisors not individuals and to apply for the fellowships, you have to be employed by a higher education institution
- Need to develop targeted schemes or ringfenced funding for underrepresented disciplines such as social workers and LA employees. Overall more schemes need to be targeted at local authority staff
- Opportunities for career development need to reflect the differences between health and social care research in terms of level of maturity, level of support in LAs and fragility of academia in social care
- Make internships available in social care
- NHS: no career pathway to have an NHS research career.
- Primary Care: it is much easier to get into research from Secondary Care than Primary Care

Discipline level feedback

- Schemes targeted at specific disciplines and generic schemes are not mutually exclusive and it would be helpful to have a mix of both
- More opportunities available for non-medics
- Non-medics- there are more barriers for non-medics as they have to complete more qualifications to receive the same chances in research/career pathways, there aren't enough opportunities for them and they have to work harder to gain the same outcomes as medics.
- Pathways for clinical people who aren't medics need to be further developed, and funding has to be in place in order to do this
- Develop targeted schemes or ringfenced funding for underrepresented disciplines such as NMAHPS and dentists
- NMAHPs- on completing a PhD they can't see a clear career pathway into academia afterwards- they don't have the clear research networks around them like medics do- they have less exposure to research and it makes everything more difficult- there are more barriers and they have to fight more for the opportunities- career pathways don't exist for NMAHPs.
- Consider a research pathway and targeted schemes for research delivery staff
- Encourage researchers who are multi-disciplinary and flexible with their work area
- Only doctors and dentists can have a clinical research career- the rest of us have to 'duck and dive.' The way research is supported is from a very medical point of view

- If you have an interest in a research career it's easier to follow a career in it if you're a medic. It's embedded in the training, they receive experience/exposure of research within the training and they definitely have the opportunities to get involved.

Feedback relating to stages of research career

- Need to invest more funding for early career researchers, mid career researcher. The schemes need to be more targeted, supporting people at the beginning of their careers
- There is nothing available for the pre-doctoral stage
- Need more funding in doctoral and post doc research
- More PhD opportunities and funding for PhDs, as well as protected time to complete a PhD, more help for people doing PhDs whilst maintaining their clinical posts and developing young researchers' ability able to pursue clinical academia.
- There are not enough people doing PhDs as a gateway to research career pathways
- Need to invest in more post-doctoral funding schemes
- Opportunities for protecting time at a more junior level
- The main gaps re: between the early years and WCAT and mid-career to later years in academia
- With the middle areas, the research clinical fellows 'float around.' They really need some structure, good training and mentorship
- When researchers get past the early career development stage, the training isn't as good
- Once researchers have finished a fellowship, they fall off a cliff. The expectation is that once a researcher has completed a fellowship, they then have the expertise needed to develop and win grant funding to become an independent researcher and often this isn't the case, further support is needed
- More investment is needed in the mid-career stage and for intermediate fellowships
- Have a huge disparity between the junior researchers and the very big researchers so there is a big gap- sustainability- reinvesting in posts- particularly senior posts
- Transitions between career stages are a danger for any early career individual, support at these points is really important
- There is a challenge in transitioning from post graduate researcher to early career researchers and then to mid-career, all of whom need support. There is a huge gap at post doc
- Doing research is risky, particularly to move into fellowship posts post-doc, there are critical time points in transitioning between different stages of a research career (i.e. PRG- ECR- mid career- senior fellowship) and these times

can be very difficult to navigate and we often lose people. There are challenges and barriers at these critical time points and it is really important to have the right advice at the right time e.g through mentorship and a supportive environment. Often people fall through these gaps

- Bridging funding for transitions
- A joint funded project between senior/junior researchers would be helpful for maximising shared knowledge/ experience
- It is very painful to transition from being clinical to academic as you are neither
- Early career, mid-career, post doc- need funding opportunities across the whole spectrum

Opportunities for all

- Parity of opportunity is really important, opportunities for all research backgrounds and professions across the UK. Being responsive and aware of the challenges as they evolve and what interventions are needed at different points in time for example the current focus on social care
- Pipelines of funding schemes for all