

Institution: Sheffield Hallam University
Unit of Assessment: 3 Allied Health Professions, Dentistry, Nursing and Pharmacy
<p>a. Overview</p> <p>Research activity in this unit (26 staff, 22.75 fte) is managed and co-ordinated by the Centre for Health and Social Care Research (CHSCR) in the Faculty of Health and Wellbeing. The CHSCR drives research concerning prevention, treatment and rehabilitation amongst groups of people with episodic and long-term health conditions or disabilities, encompassing cradle-to-grave circumstances. Organisationally there are three research groups, each with a senior research lead: <i>Inequality, inclusion and public health; Professional development, technology and research into practice; and Commissioning, service delivery and organisation.</i> Boundaries between these groups are permeable in order to nurture exchanges and fresh insights from the integration of different paradigms and methodologies, and also to provide flexibility of response to external funding and joint working opportunities.</p>
<p>b. Research strategy</p> <p>b.1 evidence of strong research plans The CHSCR strategy supports a combination of speculative, curiosity-driven research, clinical research and also pragmatic policy-led contract research designed to meet the priorities of different research commissioners, internationally (e.g. World Health Organisation [WHO], European Commission [EC]), nationally (Department of Health [DH], National Institute of Health Research [NIHR] and Economic and Social Research Council [ESRC]), and regionally (e.g. Yorkshire and Humber Strategic Health Authority). The strategy also requires a commitment to activities supporting impact (see REF3a).</p> <p>Plans outlined in the RAE 2008 Nursing and Midwifery narrative have provided a firm basis for consolidating activity in the present period. (i) <i>Programme funding:</i> The University supported the successful £20m. bid that secured South Yorkshire Collaboration for Leadership in Applied Health Research and Care (http://clahrc-sy.nihr.ac.uk/). The CHSCR is a major partner of CLAHRC-SY. Whitfield leads the intelligent commissioning workstream and Tod, McDonnell, Brown, Soltani and Kennedy contribute to workstreams in obesity, translating knowledge into action (TK2A) and health inequalities. A successful £24m bid with partners for CLAHRC 2 (Yorkshire and Humber) was confirmed in August 2013: £10m from the NIHR and £14m from partner organisations. (ii) <i>Strengthened alliances with non-academic partners:</i> the Faculty has established a Health and Wellbeing Service User and Carer Involvement Forum that works with 24 collectives from the voluntary and charitable sectors to enhance education, research and knowledge transfer (KT). The Forum provides a useful gateway to hard-to-reach service user communities and it has also been instrumental in assisting the generation of customised documents that explain in straightforward language for research users the governance and ethical requirements of our research. (iii) <i>Interdisciplinary working</i> is evidenced by the more recent recruitment of four senior staff with statistical modelling, epidemiological or biomedical science backgrounds or, in Kelly's case, biomedical and anthropological backgrounds. (iv) <i>Funding diversity:</i> there continues to be a healthy mix of EC, NIHR, research council, NGO and local funding, and between research and KT activity (see section d). (v) <i>Consolidated research and KT alliances</i> have been achieved through funding from CLAHRC and also from maintaining long-standing collaborations with service user groups, practitioners, service managers and commissioners, and HEIs.</p> <p>Our overarching aim for 2014-2019 is to consolidate and disseminate theoretically robust, applied interdisciplinary research that contributes fresh insights into important challenges faced by people with episodic and long-term conditions. Specific objectives tied to the above include: (i) sustaining the existing research infrastructure by growing external research income to nearer £1.5m p.a. by 2019, principally through strategic targeting of NIHR and UK Research Council funding; (ii) extending interdisciplinary research horizons. We are engaging in joint work with sports scientists and sports engineers through the National Centre of Sports and Exercise Medicine (NCSEM) in Sheffield. Sheffield-based partners include the NHS, University of Sheffield and a range of third sector organisations. A key aim is to develop and evaluate population level physical activity programmes to prevent the development of long-term conditions across the City; the research lead is seconded from the Faculty. Furthermore, we serve on the NCSEM Board (Bryan, Whitfield). The University has appointed the first consultant in sports medicine, Dr Simon Till, to a joint reader post between the NCSEM and the NHS following a competitive tendering process. Dr</p>

Till is a consultant rheumatologist and medical officer for the English Institute of Sport. CHSCR has a creative partnership with Art and Design at the University (and research users and customers) through the Lab4Living initiative which brings together research expertise in health, rehabilitation, user-led design and engineering to help people improve how they manage their disabilities. One of the interactive technologies under exploration is a virtual board game enabling older people in dispersed locations to engage each-other; (iii) benchmarking and reviewing individual staff activities that support impacts with research users; (iv) prospectively testing different approaches to partnership working with research users, principally through CLAHRC 2, to generate more comprehensive evidence about research impacts and quality of life for people with long-term conditions. Testing and evaluation of inclusive forms of research that make a difference to 'hard-to-reach' service users will be a priority (see research impact strategy, REF3a); (v) mentoring from senior research staff to achieve greater selectivity in personal publishing profiles among early career (ECR), and mid-career, researchers with an emphasis on publications in journals of international quality. The present submission comprises three ECRs. We hope to increase this to five by REF 2020; (vi) increasing the volume of doctoral completions from 18 in this REF period to 30 during 2014-2019, an objective based on realistic estimates of students in the system and recruitment trends; at the same time we will maintain the excellent record of high ratings in the national postgraduate research experience survey (see section c.ii).

b.2 research groupings The group structure in the UoA, the interdisciplinary underpinning to our research, and our well sustained networks with research user groups, place us in a strong position to respond proactively to national and international priorities and initiatives. Research group leads co-ordinate interdisciplinary team-based research, mentoring and staff appraisals. All three groups comprise early career/junior and experienced researchers and dedicated administrative support.

Group 1: *Inequality, inclusion and public health* (Kelly (lead), Tod, Chowbey, McLean, Green, Arden, Porritt, Paxman and Nield) focuses on the personal and environmental conditions supporting health, well-being, social inclusion and equality. Research focusses on issues such as reasons why people or groups are disadvantaged in relation to health, the development and evaluation of behaviour change interventions, and the causes of social determinants of health and wellbeing. This portfolio includes work on the impacts of ethnicity, obesity, cancer, NHS access and uptake, cold weather, fuel poverty, nutrition and dental treatment on health. Much of the activity undertaken by this research group is central to the university's Public Health Hub (PHH) which provides a conduit and platform through which to enhance research and engage with the wider national and international research community. Led by Tod, a Health and Temperature Research Group (HTRG) has been formed to bring together people with expertise around temperature calibration, health and environment.

Group 2: *Professional development, technology and research into practice* (Collins (lead), McDonnell, Childs, Kennedy, Brown, May, Probst, Bryan, Smith) concerns the development of research based practice and technological and service innovations helping healthcare professionals, social care staff, patients and carers to manage the effects of illness and disability, and maximise independence and quality of life. Research examines the degree to which different interventions best enable patients and individuals to improve their health and wellbeing.

Group 3: *Commissioning, service delivery and organisation* (Soltani (lead), Whitfield, Grant, Gumber, Khatab, Ibbotson, Barker and Taylor) investigates ways of optimising health service delivery through systematic evaluation and service reconfiguration. Research examines how services and clinical pathways can best be re-designed to meet the demands and clinical needs of users, and to encompass research in health promotion and disease prevention. Research in this theme has contributed to policy development in maternity care models, debates about investment in public health programmes, and service delivery for health improvement, disease prevention, early detection and systematic treatment. Led by Soltani, a Maternal and Early Childhood Health Research Group (MACHRIG) brings together research users and academic expertise around midwifery, education and knowledge transfer. Exemplars of achievements and contributions to the discipline can be found in section e.

b.3 evidence of multi/interdisciplinary research This UoA includes nurses, midwives, occupational therapists, epidemiologists, radiographers, physiotherapists, psychologists, speech and language therapists, social anthropologists, management scientists, nutritionists and dietitians,

statisticians, health economists and biomedical scientists. The UoA takes an interdisciplinary approach to addressing complex research problems, often resulting in outputs co-authored with individuals from other disciplines and different partner organisations, for example: Smith (output 2, 3) studies on the effectiveness of interdisciplinary working in health and integrated community services for older people; Soltani's (1) Cochrane collaboration on midwife-led care; and Green's (2) field study of thermal comfort in low-income dwellings in England. Research groupings provide a natural context for creating and sustaining synergies amongst staff with different methodological and philosophical perspectives, and clinical /disciplinary backgrounds. The research groups embrace health-related researchers from the wider University including psychologists, nutritionists and dietitians who are also included in this submission. The research groups are also the primary conduit for engaging with health and social care collaborators in the region, including NHS Sheffield, Sheffield City Council, Sheffield NHS Teaching Hospitals Foundation Trust and other NHS Foundation Trusts in Barnsley, Rotherham, Doncaster and Leeds, to name but a few. Interdisciplinarity is firmly embedded within the University's culture, a significant driver being the EPSRC Bridging the Gap award (EP/H000275, £934k, jointly held by the Faculty of Health and Wellbeing and Faculty of Arts, Computing, Engineering and Sciences). Funding pump-primed a series of cross-faculty events, including research cafes, public field labs, and generators of research ideas to drive collaboration across health, biosciences, sport and design around the themes of rehabilitation and assisted living, sport and medicine. Momtech was a significant outcome of the collaboration for the UoA (see section e).

Research development work is an integral part of the many collaborating mechanisms that tie our research groups to research users, the most obvious being those that form part of CLAHRC. A good illustration of this is work by Tod and Homer in running the co-production arm of the obesity theme which identified local priorities relating to health and weight, thus providing a platform for future research, and producing web-friendly resources for research users (see REF3a).

c. People, including:

i. Staffing strategy and staff development

The staffing strategy is based on the principles of the Concordat to Support the Career Development of Researchers. The University's commitment to the principles of the Concordat has been acknowledged by receiving the HR Excellence in Research Award from the European Commission in 2013. The approach focuses on the recruitment, training, retention and career development of research staff in an environment that respects diversity whilst enabling staff to achieve their potential. The Unit has policies aligned to the seven main principles of the Concordat. Ethical and legal obligations and good governance in research are maintained through the University Research Ethics Committee (UREC) (section d). The University has gender, race and disability equality policies to ensure compliance with relevant legislation. Examples include a commitment to good practice in employing people with a disability, and the right to request flexible working policy for parents and carers. In July 2010 the University achieved the bronze award for the Athena Swan Charter 'Women in Science, Engineering and Technology', recognising foundational work in eliminating gender bias and in developing an inclusive culture. In 2012 our Psychology Research Group received an individual bronze Athena Swan award, with good practice examples identified as the forward plan highlighting the monitoring of staff uptake of training and CPD opportunities, attendance at research conferences, and the gender of supervisory teams and visiting speakers. Eighteen of the 26 staff submitted here are women, with seven on part-time contracts. All but two are on permanent contracts, reflecting a commitment to a sustainable staffing strategy and the building of research capacity in the long term. External evidence for the latter can be found in the 2013 Careers in Research Online Survey (CROS) and the VITAE 'Straight Talking' project published by Loughborough University. Results showed SHU scoring well above average on indices relating to career satisfaction/optimism and proportions of staff on permanent contracts.

Staff development strategy is premised on Concordat principles and recognises the importance of lifelong learning. Staff are encouraged to take responsibility for personal and career development. All are appraised at least once a year by a senior member of staff, providing an opportunity for an informed discussion of personal objectives and development needs, including consideration of institutional resources. Staff can bid for support from the staff development budget. All lecturing staff have an annual allocation of self-managed study time enabling them to pursue research and scholarly activities. An annual competition encourages those with serious research aspirations to

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bid for REF fellowships providing release from teaching or administrative duties. McLean, May and Probst have all been awarded such fellowships and feature in this submission.

Succession planning has been crucial in sustaining a cadre of senior researchers, providing leadership and maintaining a buoyant culture. Senior staff retirements between 2008 and 2011 (Doel, Kirkham, Grant), the promotion of Nancarrow to a Chair at Southern Cross University, Australia, and the targeted recruitment of senior staff to Russell Group Universities (Gerrish, Mawson, Mountain and Salway) has required a strategic approach to sustaining research leadership. This has been achieved through the appointment of a new CHSCR director at professorial level (Whitfield), a new research professor (Childs) and a research-active Pro Vice Chancellor (Bryan) with responsibility for education and research in the Faculty of Health and Wellbeing. Equally vital have been the promotions of Tod, McDonnell and Soltani to professorial posts in recognition of sustained research excellence, and five promotions to readerships recognising research contributions to respective disciplines or fields of inquiry: Probst (radiography), May and McLean (physiotherapy), Arden (psychology), and Collins to lead the inclusive research agenda. In addition Kelly was appointed to a readership post with Centre-wide responsibilities for co-ordinating KT work with research user communities. Concentrating research expertise in a research centre with an established reputation such as CHSCR is key to attracting and nurturing ECRs (Porritt, Taylor and Nield). Resources to support new and established research researchers are outlined in section d.

ii. Research students

Postgraduate Research (PGR) admission criteria align with QAA and UKBA guidelines. The PhD and Prof Doc programmes have dedicated programme leads (each 0.2 fte) with responsibilities for co-ordination, standards and quality control. Early stage enquirers are offered signposts by programme leads to work up proposals. Each formal application is independently assessed by two reviewers, one with subject expertise, one relevant methodological expertise. IELTS checks are made where necessary. Recruitment to all doctoral bursaries involves a rigorous interviewing process. A comprehensive online suite of resources is available to help students, including induction packs, guides to research training and development, rules and regulations and access to the Graduate Support Team. All PGRs are required to access and use on-line skills training modules (Epigeum) available through the SHU intranet. The University has a Code of Practice for Research Students and Supervisors which outlines the quality framework for managing research degrees, and milestones to be reached by students at all stages of their study. All PGRs have team-based supervision with students and supervisors having clearly specified roles and responsibilities. A series of 'good practice' days supports research supervisors, which in 2012/13 covered issues such as ethics, integration of PGRs in the Faculty, supervision 'at a distance', and non-progressing students. The five most recently completing PhD/doctoral students are all in full-time employment: University of Jordan (two), research post at an NHS Foundation Trust, directorship of a health education bureau in Sri Lanka, and a lecturing post at SHU. In the 2013 national Postgraduate Research Experience Survey (PRES) the University and the Faculty performed exceptionally, scoring well above the national average for all participating HEIs on key quality criteria relating to supervision, resources, progress and assessment, rights and responsibilities, research skills and professional development.

There are two main doctoral training routes: a traditional research-based PhD and a Professional Doctorate combining a significant taught element preparatory to a clinically- or practice-based doctoral dissertation. Eighteen doctoral completions were awarded in the REF period. Of those registered for PhDs at 31 July 2013, 12 were externally funded, of whom eight were international students. Seven Prof Doc registrants gained Prof Docs during this period. Of those registered for Prof Docs since 2008, 19 were funded externally by Strategic Health Authorities. Eight applications were made by lecturing staff for 'buy out' time for PhD/Prof Doc study. Together, the doctoral programmes offer opportunities for students from very different occupational backgrounds (academic, clinical and independent sector) to engage in higher degree health-related study. The Prof Doc programme provides important pathways for health and social care professionals to undertake serious research training closely linked to their professional roles. As such it contributes to the delivery of national policy on improving knowledge and skills underpinning evidence-based

practice among health and social care staff.

PGRs have an extensive support suite to enhance skills and confidence. They have four opportunities each year to present their research to peers and staff, and to field questions, after having first submitted abstracts. Abstracts are posted internally and externally in order to expose students to a wider audience. PGRs are also encouraged to attend the CHSCR 'findings' and 'methodology' research seminars, each held monthly, to share and debate knowledge. This ensures that PGRs become fully integrated within the culture of the University. A 'doctoral network group' provides a more informal setting in which PGRs can discuss any aspects of their research at any stage of the research journey. 'Taster' sessions are now advertised within and outside the University to advertise PhD and Prof Doc opportunities, which typically generate 2-3 new recruits per year. Students are given an opportunity to nominate a member of staff for an Inspirational Research Supervisor Award. In July 2013, 136 nominations were received and five awards subsequently made, one to Tod.

d. Income, infrastructure and facilities

Almost all income is secured in competition with other HEIs, and is typically captured through two routes: 1) undertaking research commissioned by various bodies; generally these projects will be relatively short term requiring a coordinated 'rapid response' from staff in the UOA to develop a team able to answer research questions; 2) identifying long term priorities and developing collaborations with external sources, in order to generate applications for grant funding from bodies such as the NIHR or RCUK. External research income secured in the REF period amounted to over £3.68m, peaking at £910k in 2011/12. Total income for research and innovation-related activity (also including PGR fees, CLAHRC SY funding and consultancy) over the same period amounted to almost £9m. Although it is difficult to make a direct comparison between this REF period and income returned in RAE 2008 for UOA 11, Nursing and Midwifery, there has been more than an 11 fold increase per staff fte. Whilst the majority of income (58%) over the assessment period has been from UK Government and health and hospital sources (including NIHR), there has been a diversification in funding sources, designed to achieve a balance between security and sustainability, whilst still allowing flexibility and responsiveness to external needs. Income from EU Government bodies has increased since RAE 2008, a source that the UOA intends to exploit as part of its future funding strategy, as well as enhancing income secured from NIHR and RCUK. CLAHRC SY has been particularly important in cementing active relationships with the University of Sheffield, NHS and social care partners, and has been used as a springboard to develop applications leading to funded projects; e.g. the KWILLT project (NIHR, Research for Patient Benefit, Grant Reference Number PB-PG-0408-16041). The announcement of funding for the new CLAHRC YH, in which SHU is a partner, will ensure that these existing relationships can be sustained, whilst providing opportunities for creating new partnerships across the wider region.

Essential to the quality of the research infrastructure are procedures designed to ensure that research of the highest quality is carried out, delivered on time, to budget and to the satisfaction of research funders. Awards from the EPSRC, NIHR and local funders offer evidence of reputation and quality. Research group leads have regular monthly meetings with the CHSCR director and administrators to review budgets, expenditure, progress against milestones and staff development needs. Specialist support services form an integral part of the infrastructure to maintain research standards. Information science (IS) support (1.0 fte) is provided by two professionals with expertise in literature searching, realist synthesis, economic reviews, systematic reviews, reference management and bibliometrics. One-to-one IS sessions enable customised support on demand but can also take the form of attachments to research projects, as in the case of McLean's NIHR-SDO-funded project (Targeted Use of Reminders and Notifications for Uptake by Populations), in which the IS expert had key advisory and enabling roles during all stages of the project. Staff also have access to on-site statistics support offering 1-1 support and taught sessions. An on-site fieldwork and analysis team (1.4 fte), together with a team of six casually employed experienced fieldworkers, supports CHSCR research through the provision of expert data collection expertise in areas such as questionnaire design, databasing, interviewing, mail-outs and email/online surveys, and focus groups, as well as skills in data capture/processing and analysis. Support to new, and established, researchers also includes inter-centre postgraduate research conferences, reading groups, peer review facilities, secondments to the CHSCR, getting published/bid writing training

(directed particularly at ECRs), and pooling of existing data sets, review materials and journals.

The University's Research and Innovation Office provides central expertise to deliver the corporate vision of SHU as an exemplar in innovation, applied research and knowledge transfer. Dedicated personnel (16.2 fte) maximise intellectual outputs from market-driven research, facilitate the raising of funding to support research and its exploitation, and help create commercial technology transfer relationships with external organisations. A publicly accessible University research archive (<http://shura.shu.ac.uk/information.html>) is available in which staff publications are indexed (for metrics see REF 3a), a growing proportion available in full text form. The Sheffield Hallam University Research Ethics Committee (UREC) oversees research ethics and governance with routine work devolved to faculty level. The processes for review are set out on an externally accessible website (<http://research.shu.ac.uk/hwb/healthsocialcare/index.html>). This provides information on the process for different categories of researcher (from undergraduate to doctoral and staff) and for different categories of research (NHS, non-NHS, and Sheffield Council). It also provides information on risk assessment, copies of the necessary forms and prototype information sheets and consent forms. Each proposal receives two independent reviews. The SHU research data archive allows research data to be stored securely in line with data retention policies. Our approach to promoting integrity is recognised by the European Science Foundation.

Staff with specialist interests have access to their own dedicated resources to support research. For example, our psychologists (Arden, Barker, Taylor and Porritt) have access to 13 labs which include: eye-tracking facilities, an EEG analysis and recording suite, an observation suite with recording facilities, a vision lab housing a visual stimulus generator, a neurofeedback lab, a three-person multi-purpose test lab and five single-person test labs/interview rooms. Radiotherapy staff (Probst) have access to an immersive visualisation suite currently being used in a PhD study to investigate the impact of virtual reality on the ability of students to learn complex anatom. A computer suite with dedicated radiotherapy planning software is also available which allows radiotherapy treatments to be planned using either phantom or real patient data. Nutritionists and dietitians (Paxman, Nield) utilise a large, recently overhauled (£3.75m) suite of facilities including a replicate state-of-the-art food industry environment (for manufacturing and production), a practical development and demonstration area, an anthropometrics and bloods laboratory for human nutrition studies, a microbiology lab, a suite for sensory analysis and consumer panels, and booths for covert feeding and appetite studies. Physiotherapy staff (May, McLean) have access to diagnostic ultrasound, electromyography, balance performance, Gaitrite and Primus equipment. CHSCR staff are located in a villa refurbished to a high standard with modern IT and networking facilities, based at the Collegiate Campus, where one of the University's two learning centres (libraries) is also based. Access to specialist bibliographic databases is provided via an online platform and library and IT support offered both virtually and face-to-face. All staff have state-of-the-art computing and reprographic facilities. Locally accessible seminar rooms and smaller, private spaces can be used for research interviews and video-, or tele-, conferencing. The learning centres on both campuses integrate quality academic library information resources in electronic and hardcopy format with excellent IT facilities in a range of different learning environments to suit the needs of students and researchers. Learning centre Helpdesks bring together a wide range of services, including information enquiries and 24-hour IT support, which are designed to enhance the experience of using the learning centres. A fast and effective Document Supply Service obtains items for researchers which are not held in the University's collections.

e. Collaboration and contribution to the discipline or research base

Examples of contributions to the discipline are summarised below by research group.

Group 1: *Inequality, inclusion and public health*: Kelly's interdisciplinary work (2) leading to explanations for links between geology, silica-volatile interaction and a lung cancer epidemic in China has had a notable impact on cross-disciplinary epidemiologic geochemistry. Kelly's paper (1) in Psychoneuroendocrinology is one of the first to address systematically all factors previously shown to affect salivary cortisol levels in adolescents. Tod's (1) research on winter warmth among older people has attracted considerable interest in the public health community and has generated rapidly growing evidence of local and inter-governmental level impacts (see Kwilt case study); she has also contributed to a Wellcome bio-ethics funded seminar series on the ethics of conducting in-depth interviews, leading to a paper published in *Research Ethics Review* (Allmark et al 2009), top-

cited in the journal during 2012/13. Arden's work (1) has led to the development and testing of brief health behaviour change interventions to reduce excessive alcohol consumption. Paxman's work (1, 2, 3) employs novel food products (e.g. novel-gelling alginate beverage) or ingredients (e.g. *Ascophyllum nodosum* – Hebridean Wild Wrack seaweed) demonstrating their potential to elicit changes in appetite and/or feeding behaviour or improvements in markers of health such as cholesterolaemia and glycaemia.

Group 2: *Professional development, technology and research into practice*: Childs (1-4) has initiated collaborations with individuals from different specialties (mathematics, imaging science, metrology) in Singapore, UK, Canada and Finland. These concern the implementation of international temperature standards to establish measurement uncertainty of clinically monitored datasets, development of novel 'phantoms' for calibration of internal thermometry via MR spectroscopy and imaging, and work on high order mathematical modelling to interrogate large clinical datasets of cerebral parameters. Her work on the therapeutic management of patients with severe brain damage, specifically the reliability and validity of measurement and the efficacy of treatments, represents a significant contribution to the theory of human thermoregulation and novel, non-invasive, technology for measurement of cerebral temperature, and challenges existing theory and practice. Bryan's research on communication difficulties in diverse groups, including young offenders (1), people with aphasia (2), and older people from ethnic minority groups (4) has contributed to evidence about lack of voice, inequality and explanations for poor care and treatment, reinforcing the importance of social models of disadvantage in these contexts. Based on an early conceptual framework capturing the impact of nurses working in advanced roles on evidence based practice, McDonnell (2) has undertaken systematic review work and case studies to develop a comprehensive theoretical framework capturing the impact of advanced nursing roles. This framework has informed two further studies into the impact of advanced roles in collaboration with two NHS organisations and is attracting wide interest (see APR case study). Brown (1-3) has contributed to emerging theory about how obesity stigma affects health decision-making and has developed and validated a new questionnaire measure for further research in this area.

Group 3: *Commissioning, service delivery and organisation*: strong links have been established through EU-funded projects with international partners in for instance the Czech Republic, Greece, Italy, Lithuania, the Netherlands, Poland and Romania. Examples include Whitfield's work on the economic impact of pro-active disease management in chronic kidney disease (1,2) and population level risk reduction in cardiovascular disease (4), and also an EU funded GAP project examining baseline competencies to inform training for family practitioners across Europe in the detection, prevention and early treatment of cardio-vascular disease. Soltani's work with partners has led to a preliminary prototype for a complex intervention in promoting self-care management using mobile technology for pregnant women (MOMTech). Her World Health Organisation (WHO) supported work on the postpartum haemorrhage prevention survey linked with the EU Project on Obstetric Haemorrhage Reduction Attitude and Trial and Early Warning System (Euphrates) has contributed evidence to a major global challenge for maternal mortality (4). Her Cochrane review work on midwife-led care (1) received much recognition. Gumber's work has contributed to an improved understanding of UK kidney transplantation policy through examination of the preferences of nephrology physicians, healthcare professionals renal patients and families (4); he has highlighted important equity issues in cancer screening uptake in ethnic minority and deprived communities, creating primary care-based strategies to improve uptake in those communities (2,3).

External appointments Indicative examples of prestigious external appointments include: Visiting Professor, University of Warsaw; member of MRC College of Experts; policy adviser to the Royal College of Speech and Language Therapists; chair of the Commission for Service Improvement Action Research Forum, DH South East (Bryan); member of Singapore Sports Council Institutional Ethics Review Board; Consultant to Hong Kong Council for Accreditation of Academic and Vocational Qualifications; member of Neuroethics Working Group of the Bioethics Advisory Committee, Singapore (Childs); elected member of the BPS (British Psychological Society) Division of Health Psychology committee; Associate Fellow of the British Psychological Society (Arden); executive/associate member of INVOLVE; member of National NHS Bowel Cancer Screening Programme Research Committee; member of CLRN Palliative Care Local Specialty Group for South Yorkshire (Collins); Professor of Health Services Research, Sheffield Teaching Hospitals NHS Trust; Member of the RCN 2012 International Nursing Research Conference

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International Scientific Advisory Panel (McDonnell); Honorary Professor of Midwifery at Barnsley NHS Trust and Doncaster NHS Trust; Member of International Confederation of Midwives (ICM) Research Standing Committee and Chair of ICM-RSC Networking group; member of the Yorkshire and Humber Health Innovation and Innovation Cluster-Maternal and Infant Health and care (HIEC-MIHC) advisory group; invited expert adviser for several WHO maternity guidelines, WHO reproductive health global research prioritisation, and NICE maternal obesity management guidance (Soltani); Member of the Lung Cancer and Mesothelioma Advisory Group, NHS National Cancer Action Team; Chair of the Research Sub-group of the National Lung Cancer Forum for Nurses; Honorary Consultant in Public Health, NHS Sheffield; Honorary Professor of Health Services Research, Sheffield Teaching Hospitals NHS Trust (Tod); Secretary of Board of Directors, International Mechanical Diagnosis and Therapy Research Foundation; Member of Education Committee, McKenzie Institute International (May); Executive committee member of the British Psychosocial Oncology Society, (Kennedy), Co-Chair of the College of Radiographers Research Group; member of the National Radiotherapy Implementation Group (workforce sub-group); and mentor for NIHR AHP Clinical Research Fellows (Probst).

Membership of national and international grants committees Member of Board of South Coast NHS Research for Patient Benefit Scheme (Bryan); Invited scientific adviser, NIHR-HTA Programme, Invited Expert Grant Reviewer, MRC/Wellcome Trust Global Health Trials Scheme (Childs); NIHR Post-doctoral Fellowships Panel, and end of award reviewer for NIHR SDO Programme (McDonnell); Department of Health Policy Research Programme - Policy Research Units Commissioning Panel (Grant); funding panel chair for the College of Radiographers Industrial Partnership research funding awards (Probst); member of the Yorkshire and Humber NIHR Research for Patient Benefit Committee, (Soltani); Member of the Irish Health Research Board – Health Service Research Grants Committee (Whitfield).

Fellowships and relevant awards Fellowship of the Royal College of Speech and Language Therapists awarded for research contribution to the profession (Bryan); Health R&D North West TRAM Fellowship – Brain Injury Research, 2008 (Childs); Centre for Intergenerational Health Early to Mid-career Fellowship, Health and Medical Science Alliance, South Australia, 2010-2012 (Kelly); Fellowship to the College of Radiographers, 2011, for outstanding contribution to the science and practice of radiography (Probst); First prize for posters, British Thoracic Oncology Group Annual Conference, 28-30 January 2009, Dublin, Early Lung Cancer Identification in Doncaster (ELCID), Tod AM. and Suckling R. (Tod); NIHR Clinical Academic Fellowship (March 2010 to February 2013) for work on the clinical management of long-term conditions in primary care and research weight management, funded jointly by the NIHR, CHSCR, CLARCH-SY and the Sheffield Care Trust (Brown).

Journal editorships British Journal of Learning Disabilities (Grant); Special edition of the Journal of Radiotherapy in Practice in 2009 on research; and editorial in Radiography on the CoR research strategy in 2012 (Probst), BMC, Pregnancy and Childbirth: associate editor (Soltani); Special edition editor (2013) of Frontiers in Neuroscience Open Access: 'Executive function(s) - conductor, orchestra or symphony: towards a trans-disciplinary unification of theory and practice across development in normal and atypical groups' (Barker); associate editor, British Journal of Health Psychology (Arden).

Membership of editorial boards International Journal of Physiotherapy and Rehabilitation (McLean); Quality in Ageing, Journal of Intellectual Disabilities, Journal of Applied Research in Intellectual Disabilities (Grant); Journal of Manual and Manipulative Therapy, ISRN Rehabilitation, International Journal of Physiotherapy and Rehabilitation (May); Journal of Radiotherapy in Practice, Canadian Journal of Imaging and Radiation Sciences (Probst); Midwifery, Evidence-Based Midwifery, Journal of Midwifery and Reproductive Health (Soltani); Polish Journal of Public Health (Whitfield); Europe's Journal of Psychology (Kennedy); Arts and Science Advisory Group for the Nursing Standard (Tod), Frontiers in Neurotrauma, Scientifica, Open Critical Care Medicine, and Open Access Critical Care (Childs), Asian Pacific Journal of Tropical Biomedicine, Asian Pacific Journal of Tropical Medicine (Khatab); Psychology & Health (Arden).