

Institution: Staffordshire University
Unit of Assessment: Allied Health Professions, Dentistry, Nursing and Pharmacy (UoA 03)
1. Unit context and structure, research and impact strategy

1.1 CONTEXT AND STRUCTURE

This Unit of Assessment presents work from two multidisciplinary research centres, the **Centre for Health and Development (CHAD)** and **Staffordshire Centre for Psychological Research (SCPR)**, and from the **Sport, Exercise, and Performance Psychology (SEPP)** Research Group. These structures consolidate allied health research within the **School of Health and Social Care** and the **School of Life Sciences and Education** by bringing researchers, methodological experts, and researcher-practitioners to work together. They provide an integrated, interdisciplinary environment for researching local, national, and international needs for health and wellbeing. As the present submission demonstrates, this research includes innovative work on nursing, public health, biomedical science, and health behaviour change that explores a range of biological, psychological, sociological, and spiritual-ethical dimensions.

Within the Unit, we are committed to producing high-quality research that contributes to our academic and public communities. Staffordshire University is an anchor in the local community. We contribute to that position through our close links to Stoke-on-Trent City Council, the NHS, and a range of third-sector organisations. In the assessment period, our research volume and the quality of our outputs (329 peer-reviewed articles, 79% in Q1/Q2 journals) have been a testament to our dedicated, talented, and resourceful academics, sound recruitment strategy, and emphasis on a supportive, collegial environment that promotes collaboration and mentorship.

Centre for Health and Development (CHAD) [Boath, Boughey, Ellis, Forsyth, Gidlow, S Jones, McSherry, Povey, Rodham, Tolhurst]: CHAD was established in 2015 as an innovative partnership between the University, Stoke-on-Trent City Council and Staffordshire County Council, with a Board of prominent national and international public health figures (e.g., Prof Siân Griffiths, Associate Director of Public Health England). In line with our civic university agenda, CHAD undertakes interdisciplinary, applied research that benefits the population by informing policy and practice locally, regionally, and nationally.

CHAD's key objective is to contribute to the reduction of entrenched social and health inequalities. Priority research areas include neighbourhood environment and health, homelessness, and chronic disease prevention. In addition to a three-year grant from the local authority partnership (£900,000), CHAD has attracted additional external income totalling approximately £540,000 (2016-2020) to sustain and develop research, impact, and engagement activities.

CHAD is founded on collaborative working. The Centre connects researchers from across the University whose work aligns with the Centre's aims. It also provides collaboration with external partners from academia, practice and policy, as demonstrated by the impact case studies returned to this UoA led by **Gidlow** and **McSherry**.

Staffordshire Centre for Psychological Research (SCPR) [Barlow, Burton, Cowap, Humphreys, Hurst, Jolley, Krahenbuhl, Owen, Povey, Rodham, Rose, Scott, Street, Taylor]: SCPR was established in 2016 to bring together psychology researchers who undertake socially relevant research across the lifespan. Common across all the work is its focus on improving psychological health, demonstrating the impact that psychology can have on health, and providing evidence to enhance delivery of health services. To ensure our findings are shared widely, SCPR collaborates with industry, the NHS, service users, policymakers and global academic partnerships and exemplifies the University's ethos of co-creation and co-production of research. **Barlow, Jolley** and **Rose** explore children's creativity in pedagogic settings, using innovative and engaging methods to collect data.

Povey and **Cowap** focus on understanding children's dietary choices to improve interventions to increase fruit and vegetable consumption. **Scott** has explored how best to help children learn how to delay gratification. **Taylor** and **Owen** both examine factors that influence our ability to engage in proactive health behaviours. **Hurst** focuses on the impact of nature on health. **Street** explores the impact of fractals and the concept of beauty, often in nature, on our wellbeing. **Burton** and **Rodham** look at how best to help adults live with persistent pain. **Burton** has investigated how to encourage healthy aging.

Sport, Exercise, and Performance Psychology Research Group (SEPP) [Blackett, Duffel, Slater (NB Barker, M Jones, Turner and Wood have since taken positions elsewhere)]: SEPP is an interdisciplinary research team created in 2016. It explores methods of promoting psychological and physiological health and performance. It produces research into: (1) understanding and managing stress; (2) the psychology of groups and leadership; and (3) the application of cognitive behavioural approaches. SEPP's research engages with individuals, teams, and organisations in a variety of settings. Its stakeholders include Team GB's rowers, Paralympic footballers and archers, Staffordshire Fire and Rescue Service, and Stoke City Football Club. **Slater's** impact case study demonstrates the impact of SEPP's high-quality research with external partners.

We have enhanced our biosciences research capacity by recruiting **McStay and Seker**. Similarly, **S Jones** brings expertise in healthcare analytics (£458K Health Foundation grant). These colleagues complement the UoA's existing interdisciplinary nature. Through their research in computational biology, genomics, microbe-environment interactions, patient safety, data ethics and health analytics, they are expanding our expertise in addressing underpinning environmental and psychological factors that impact on population and healthcare workforce health and wellbeing.

Within the UoA, research ethics and integrity are paramount. We adhere to University principles and processes outlined in the Code of Conduct for Research and GDPR, as well as conforming to relevant professional body ethical practice guidelines (such as those of the British Psychological Society). Robust ethical approval processes include independent, double review, and peer review for projects that require Health Research Authority and NHS Research Ethics submission. Patient and Public Involvement and Engagement (PPIE) activities are integral to our development and delivery of health-related research, and internal peer-review of funding applications is routine.

1.2 RESEARCH AND IMPACT STRATEGY

Since 2014, and accelerated by the University's 2018 Research, Innovation and Impact Strategy, we have focused on building capacity and capability, enhancing collaboration, and enabling and facilitating impact.

(i) Building capacity and capability in key research areas

In keeping with the University strategy to develop interdisciplinary strength in key areas, we have united research expertise across nursing, public health, biomedical science and health behaviour change throughout the assessment period. The Unit incorporates researchers from a range of academic disciplines and healthcare expertise including nurses, health psychologists, and sport and biological scientists. The synergies in research have been developed by our researchers seeking interdisciplinary collaborations across the University with support from our Research Innovation and Impact Service (RIIS, established during this REF cycle). We have focused on expanding our core strengths in:

Understanding the impact of natural environment on health. **Gidlow, Hurst, Ellis** have been part of large European (PHENOTYPE 2012-2016, GoGreen Ex 2016-ongoing) and international collaborations (International Physical Activity and Environment Network 2010-

present). These collaborations are developing the international understanding of the impact of neighbourhood environments, particularly the natural environment, on a range of health outcomes including birth outcomes, mental health in pregnancy, cardiac rehabilitation indicators, and physical activity.

Improving individual physical, psychological, social, spiritual well-being and health. Burton has collaborated with The Change Exchange, a collective of volunteer behavioural scientists who translate behavioural science in situ in low and middle-income countries. Burton worked in Uganda and explored the behaviour change techniques used by educators, supported knowledge and skill development in behaviour change, monitored the impact of projects on psychological determinants of behaviour, and made recommendations for future project developments. In 2018 **Gidlow, Ellis, Povey** successfully developed and tested training to improve 60 practitioners' confidence and perceived understanding when communicating cardiovascular disease (CVD) risk, introducing them to novel tools and metrics.

Our innovative, qualitative **methodologies** enable us to develop our thematic research with populations who would be otherwise difficult to engage. **Jolley, Rose, Burton, Barlow, Hurst, Street, and Rodham** all use images (drawing, photographs, art) in their research. These innovative methodologies widen the range of potential research participants by making our data collection process more accessible to those who may otherwise be excluded from taking part, for example, children, clinical populations, and people with health literacy problems. **Gidlow, Ellis, and Cowap** used novel video-stimulated recall methods to explore CVD risk communication in primary care CVD prevention. We seek to take our methodological innovation in pioneering new directions, as seen in **McSherry's** work on the importance of considering spirituality to meet gaps in healthcare delivery.

(ii) Enhancing collaboration with external partners in academia and other sectors

We have focused on delivery of interdisciplinary, applied, high-quality translational research. Through our research and collaborations (71% of peer-reviewed outputs are co-authored with external collaborators. 29% of peer-reviewed outputs include collaborations with non-academic partners), we are already making a positive impact on policy, practice and theory. Key achievements include:

Impact on Policy & Practice: CHAD has developed and strengthened partnerships (2016-ongoing) with over 30 stakeholders, encompassing local authorities, the NHS, and third sector organisations. CHAD's research is influencing these organisations' practice and policy, making a difference for the people they serve.

As demonstrated in **Gidlow's** impact case study, our research into neighbourhood/natural environments and health resulted in the creation of two collaborative Healthy Urban Planning (HUP) posts in Stoke-on-Trent City Council; homelessness research led to changes in a public protection order for more empathetic policing of street begging; and research for the Beth Johnson Foundation has shaped their organisational focus of promoting health in mid-life (helping them to secure substantial programme funding in this area).

Gidlow, Ellis, and Povey's research has resulted in developing training and resources to improve risk communication in NHS Health Checks nationally. The research has contributed to an improved uptake of NHS Health Checks in Stoke-on-Trent from 62.5% to 73.5%.

McSherry was supported to take a joint appointment with the University Hospitals of North Midlands NHS Trust. This strategic development ensures that his research is co-developed with end-users, and as a result generates impact by improving clinical practice. In his EU-funded EPICC project, he has developed networks in 21 countries to shape education around spirituality in nursing.

Increased engagement: **Slater** has established productive collaborations with researchers at KU Leuven and the University of Queensland that focus on social factors including leadership and belonging. The resulting high-quality outputs contribute to the University's growing reputation in this area (e.g., Fransen, Coffee, Vanbeselaere, **Slater**, De Cuyper, & Boen, 2014; Slater, Coffee, Barker, Haslam, & Steffens, 2019).

Street and **Hurst** collaborated with the artist Mark Ware (www.markware.co.uk) on the interactive arts-science exhibition and workshop tour *Reflecting Nature* at eight venues in the UK (2016-2017). Through a series of lab and field-based studies, researchers explored whether artistic, nature, and urban images evoked positive psychological states such as improved mood and stress-reduction responses.

Jolley is promoting the psychological benefits for children who engage in the arts, a collaboration with the Stoke-on-Trent and North Staffordshire Cultural Education Partnership.

Rodham has strengthened our existing connections with the Complex Regional Pain Syndrome-UK (CRPS) patient support group. During the COVID-19 lockdown she has been invited to speak at their online meetings, which offer psychological coping advice for people living with CRPS.

CHAD's public engagement programme of research seminars, lectures and conferences was attended by 1600 stakeholders and members of the public across 25 events (2016-2019), providing a major contribution to the University's impact and engagement programme.

Enabling and facilitating impact

Our work is centred on interdisciplinary partnership working and participatory methods to co-produce high-quality research that can be applied. We focus on developing collaborative networks to generate and support ongoing impact, a strategy in line with our institutional research strengths around co-creation and co-production. Our established links with external partners, practitioners, and experts, and our support for staff with joint practice and research contracts, helps to strengthen this impact strategy. Our dissemination strategy further enhances our impact by ensuring that our work contributes to and further develops evidence-based practice, which in turn benefits end users.

Income and research promotion and dissemination have been key enablers of our approach to impact. Significant achievements include:

Raising external income and diversifying the funding base: As detailed in section 3, members of this UoA have successfully secured £2.7 million in external income (£102,944/FTE) in this REF period. We have won flagship awards from prestigious funders including NIHR, Health Foundation, and the European Commission. As our impact case study outline, we have successfully delivered 70 impactful projects funded by charitable and public sector organisations (including Public Health England, NHS, Stoke-on-Trent City Council, Staffordshire County Council, National Lottery/VOICES of Stoke-on-Trent, Brighter Futures), which have included private sector engagement. Our mixed portfolio underlines our sustainable growth and future, and it ensures a breadth of knowledge exchange pathways are available to achieve further impact.

Promoting and disseminating research: The investment in research that has been made in the REF period has yielded excellent outputs, grant awards and measures of esteem. Between 2014 and 2020 members of this UoA achieved 329 publications (79% in Q1/Q2 journals), 2933 citations and a field-weighted citation impact of 1.5 (Source: SciVal).

In line with University open access policy and to maximise the reach of our work, we upload our outputs to the University's repository, STORE, which ensures that our research is widely available. In addition, the University's media and communications team has extensively broadcast our research in the press and other media, with over 1.2 million reads in the Conversation outlet since 2017/18.

We have several regular seminar programmes with high-profile external speakers throughout our UoA. We have an extensive cohort of visiting fellows and professors (n=86) whose

contributions to our research environment include PhD supervision and co-authoring research outputs. The central Research Innovation and Impact Service (RIIS) identifies funding opportunities and works closely with academics to seek collaborations with academia and industry.

1.3 FUTURE DIRECTIONS

This submission is Staffordshire University's first to UoA3. The strong ties that have been forged within the Unit, the enthusiasm and expertise of the researchers, the increasing international reputation, the forming of key partnerships, and the comprehensive support from the University combine and provide a clear route to growing the research over next five years.

The University's 2030 Academic Strategy commits to underpin our "intellectual contribution to the local and regional creative, digital and foundational economies" with rigorous and significant research. Our continued growth plays a key role in meeting this University strategy, which has a strong focus on allied health and education. Over the next five years we will continue to contribute to the advancement of knowledge focusing on:

- ***Understanding the impact of natural environment on health***
- ***Improving individual physical, psychological, social, spiritual well-being and health***

Specifically, we will foster the growth and support the development of existing and future research groups and centres, take advantage of current and future University investment, and embed coaching and mentoring throughout in the research environment.

Growth and support for existing and future Research Groups and Centres

There will be growth in number of University-research groups to meet these challenges, through mentoring, targeted support and guidance from RIIS, and shared expertise from leaders of Research Centres across the University. Specifically:

- **SEPP** will be supported to become an established Research Centre.
- The **Research into Safety in health and social care Network (ReSNET)** was formed by recent recruit **S Jones** in September 2020. The network consists of a growing number of University researchers and representatives from 17 regional and national organisations including NHS England, NHS Improvement, and NHS Resolution, alongside strategic senior policymakers including Professor Mark Radford, Chief Nurse of Health Education England and Deputy Chief Nursing Officer for England. We will develop this collaborative network to drive our research growth in patient safety and healthcare through the co-production and co-creation of research with key stakeholders.
- Building on the new expertise acquired during this REF period, we will establish a **Biosciences Research Group** in 2021/22. Researchers in this nascent group investigate the underpinning environmental factors that impact on health and wellbeing. Its members have expertise in areas including computational biology, genomics and microbe-environment interactions.

In line with the civic university agenda, research in UoA3 is underpinned by a culture of collaboration and co-production. Our researchers will contribute significantly to the University Civic Agreement, which calls for us to formalise existing relationships and develop new ones with an increasing range of external partners in academia, professional practice, industry, community, sport, and ecumenical bodies in line with our civic mission and research impact activities. We will undertake this work by seeking to develop critical mass in key emergent research areas, such as ReSNET, which is bringing quantitative strengths and new partnerships.

Ensuring Investment across the University impacts positively on our UoA

Recently the University was awarded £2.9 million (2020) to develop a Centre for Health Innovation. This Centre will be used for research collaborations across Allied Health professions with local Hospital Trusts and industrial partners. Our aim is to increase innovation and jobs in the local healthcare sector through collaborative research and knowledge exchange activities located at the Centre.

We will use the University's recently established Digital Institute London, which contains high-quality computing facilities and leading national development in e-sports, to increase our digital research capacity in bioinformatics and healthcare.

The range of opportunities for research and knowledge exchange experience, mentoring, capability, and potential that arise from these investments, combine with our comprehensive, ambitious research strategy. Together, they fortify our research culture and ensure our sustainable growth beyond REF2021.

Embedding coaching and mentoring in the research environment

To support the growth in researchers in the Unit, we have approved an expanded mentorship programme to increase our mentorship provision for early career researchers (ECRs). We will implement this support within the Research Centres and Groups, with Senior Researchers (Associate Deans for Research and Enterprise (ADREs), Professors, Research Centre Directors, and Research Group Directors) working closely with ECRs and other individuals allocated time to undertake this role. ECRs will be paired with Senior Researchers and encouraged and supported to seek out and engage in collaborative multidisciplinary research.

2. People**2.1 STAFFING STRATEGY AND DEVELOPMENT**

Over the REF period, the University has used policy consultations and recruitment to increase the institutional focus on research. We have contributed by making several researcher appointments and promotions across the Unit and this is reflected in all of our submitted staff holding a PhD or Professional Doctorate. These include internal appointments, and part of our submission includes researchers who were submitted to three separate UoAs in 2014 (UoA4 Psychology, UoA25 Education, and UoA26 Sport). We have recruited strategically and brought researchers together to expand our thematic and collaborative Allied Health research.

Effective development and support of research work of our staff

We prioritise maintaining and expanding our team of expert, passionate, and internationally renowned Allied Health researchers. Our sustainable staff structure is underpinned by:

- Appointments and promotions in key areas of research strength
- Professional development of researchers

Appointments and Promotion

Since 2014, we have recruited research leaders at Professorial level in **Rodham** (ex University of Bath) and **Pierscionek** (returned in UoA12, ex Nottingham Trent), the latter as ADRE in the School of Life Sciences and Education. In this REF period, we recruited **S Jones** at Associate Professor level. Two of those submitted in this UoA have been promoted to Professor (**Boath** and **Gidlow**) and five to Associate Professor (**Forsyth**, **Jolley**, **Povey**, **Slater**, **McStay**).

Unit-level environment template (REF5b)

We make appointments and promotions in conjunction with the University's systemic use of targeted support to develop the institutional research culture (see section 2 of REF5A). The appointment of senior and established researchers adds to our capacity to provide mentorship and guidance for our early career staff. These strategic staffing decisions ensure our continued sustainability and vitality. We are developing our established researchers, simultaneously growing, and supporting ECRs (who comprise 19% of our submitted staff) to develop their skills, expertise, and networks.

We encourage staff seeking promotion to attend dedicated support sessions run by experienced and recently promoted staff. We offer these staff comprehensive mentoring support by an appropriate senior member of staff under guidance from the relevant ADRE or Centre Director. Further support is provided by an extensive network of visiting (n=86) and emeritus (n=5) academics. This additional, external support enhances our diversity and enables us to use their networks and thereby expand our opportunities to collaborate with academics, practitioners, clinicians, and other Allied Health professionals.

Professional Development of Researchers

Our researchers, including ECRs and Postgraduate Researchers (PGRs), make use of a range of opportunities which are designed to ensure that they realise their full potential. These opportunities include:

Dedicated and Protected Research Time: During this REF period, the University introduced a Teaching, Research and Innovation (TRI) contract pathway (section 2 of REF5A). All staff on this pathway who are being submitted to this UoA receive a minimum 20% contracted time for research, protected by reduced teaching and administrative activities. The School ADREs and line managers ensure that this research time is indeed protected by building its planned allocation into work-plans.

Performance and Development Review: All researchers have an annual Performance and Development Review (PDR) with their line manager, with a six-monthly review to set objectives aligned to University strategy and identify appropriate training and development needs. ADREs contribute to the PDR by helping to develop appropriate research objectives that support the trajectory of individual research careers and the broader research centre academic direction.

Continued Professional Development: Development training is supported internally through the University Human Resources and Organisational Development and access to LinkedIn Learning. RIIS supplies all staff and PGRs with a centralised programme of internal researcher training. The programme has been designed with input from staff and PGRs, ADREs and using feedback from the outcomes of the Culture, Employment and Development in Academic Research Survey (CEDARS) from 2020. We are expanding our capacity to supervise doctoral trainees by providing our staff with appropriate training in doctoral supervision and encouraging inexperienced supervisors to join supervisory teams as the second or third supervisor.

Coaching: We encourage our less experienced researchers to access coaching and mentoring through the Research Centres and from the University Professoriate Community.

Internal collaboration: Internal Research Centre seminars and workshops provide an opportunity for establishing new academic networks, receiving supportive academic critique and disseminating research findings to peers. The annual University Research Conference provides an opportunity to share research findings and establish new interdisciplinary contacts across the institution. The nascent Biosciences Research Group (see p5) is working with SEPP to develop a collaborative research programme with Qatar University's Biomedical Research Centre in Doha.

External Collaboration: CHAD's approach of developing and strengthening partnerships with local authority, NHS, and third sector organisations (see section 1) continues to create opportunities for research collaboration. In this last REF period, SCPR has secured nine bursaries for health psychology professional doctorate trainees. Every bursary leads to

research collaborations between the trainee, their workplace, and their academic supervisors.

Early Career Researchers: In addition to protected time, ECRs are provided with ADRE and RIIS support for writing grants and achieving publications. Interdisciplinary meetings held across the University develop ECRs' peer-to-peer networks and enhance the research environment (e.g., Professoriate). Internal funding is prioritised to support travel to conferences and external networking events, and to achieve open access publications.

2.2 DEVELOPMENT OF RESEARCH STUDENTS AND THEIR INTEGRATION INTO THE WIDER RESEARCH CULTURE

In the current REF period, the Unit has had 32 successful doctoral completions (18 PhD and 14 Professional Doctorate in Health Psychology) completions. We ensure that our PGRs enjoy a supportive, constructive experience that enables them to do their best work, encourages them to publish as they progress through their doctorate, and helps them to achieve their qualification within an appropriate period of time. We also support our postgraduate research trainees to gain membership of the Higher Education Academy. Cross centre supervision of PGRs promotes integration and inter-disciplinarity. PGRs have their own dedicated space for social and professional networking as outlined in section 3.

This Unit has three dedicated Postgraduate Tutors (two for PhD students and one for Professional Doctorate trainees). These tutors offer support in addition to the supervisory team. They provide regular engagement and collaborative working with the PGR community to ensure that the students' feedback is heard and actioned where appropriate by the University.

All doctoral trainees are members of the Graduate School, the University's central PGR support and administrative service. The Graduate School monitors and supports PGRs throughout their project lifecycle: admission, progression, thesis submission, and completion. It supplies supervisors with links to research and teaching resources as requested. It provides PGRs with a full programme of seminars and workshops. These sessions supplement supervision meetings to ensure that PGRs develop the requisite key skills to become confident and competent researchers. The Graduate School also provides a forum for formal and informal interdisciplinary exchanges, including both academic (annual research conference) and social activities (e.g., the annual BBQ).

The COVID-19 pandemic has impacted our staff and students. We have worked hard to maintain connections with our PGR community (73 current students on 31st July 2020), some of whom may not yet have visited the campus due to COVID-19 restrictions. Beyond supervision meetings, we have kept in regular contact with our PGRs by post as well as by electronic means; for example, the health psychology team sent their professional doctorate trainees tea bags to have during supervision meetings, regular sending of cards (e.g., end of the academic year, graduation, induction, Christmas) and for the new trainees, they put together a booklet introducing Stoke-on-Trent. The Graduate School have also run social events and encouraged trainees to make use of the technology to develop a sense of 'being together apart'.

2.3 EQUALITY AND DIVERSITY

Of the staff submitted to the UoA3, 61% are female. The University is a member of the Athena SWAN charter and is working to earn a University Bronze award. We uphold the SWAN charter's six principles, and we actively work to support and implement the University's Equality, Diversity, and Inclusion Framework (2018-2021; renewal in 2021). We facilitate flexible working for staff with different needs, with individuals within the Unit benefiting from maternity/paternity leave, other special leave circumstances, and provide flexible working arrangements in line with institutional policies (e.g., individuals with caring responsibilities, compassionate leave). 21% (6/28 staff) are employed on part time contracts. **Forsyth** was supported by the University to set up a 'Women in Research Network' across the University, which she leads, to provide an informal forum for gender-based support and discussions to support the research environment.

3. Income, infrastructure and facilities**3.1 INCOME**

In the REF period, we secured research income from a diverse range sources, reflecting our research activity's breadth and significance. We are committed to health and well-being research with real world impact. The focus of our future external funding strategy involves targeting funders who share this aim, and range from European funding and NIHR, to commissioned and impactful research and evaluation for organisations, including the NHS, local authorities, charities, and elite sport.

Between 2013 and 2020, UoA3 secured £2.7 million of research income. Notable awards include:

- £900,000 from Stoke-on-Trent City Council and Staffordshire County Council to establish and run CHAD for the first three years (**Gidlow, 2015-2018**)
- £397,536 Health Technology Assessment funding (NIHR) for the Risk Communication in NHS Health Check (RICO) study (**Gidlow, 2017-2019**).
- £458,000 from the Health Foundation to investigate nurse retention, ambulance workforce retention and patient safety utilising big data modelling (**S Jones, 2019-2023**)
- €242,093 (£218,704) Erasmus+ K2 Strategic Partnership funding to work with leaders across Europe in spirituality and compassionate care (**McSherry, 2016-2019**)

CHAD's funding awards demonstrate our applied and collaborative approach to securing funding for research that will make a difference. These awards include £160,000 for Healthy Urban Planning researchers to change the practice of Stoke-on-Trent City Council planners (**Gidlow**); over £47,000 for research around housing and homelessness through local third sector organisations (VOICES and Brighter Futures; **Gidlow**); over £260,000 for research and evaluation for third and public sector organisations covering a range of areas (e.g., dementia-friendly care homes, Adverse Childhood Experience, dignity in care, commissioning of women's support services, and Staffordshire Fire and Rescue Service) (**Gidlow, Ellis, McSherry, Slater**).

Local practice-based partners provided SEPP with key working and funding partnerships. These include £180,000 for PhD studentships from Stoke City Football Club and from Impact International. We have generated consultancy income from our expertise in areas including stress management and dementia-friendly care environments, with stakeholders including The Davies Group and Great Britain Rowing (£43,000).

In addition to external income, internal seed funding has been used to start impact-based projects and conferences and to support the writing of research bids.

Our strategy for future income generation is to maintain and develop new activity with funding sources where we have been successful, including NIHR, charities, and local government, and to use our extensive partnership networks to build capacity and become more competitive for UKRI and fellowship funding.

3.2 INFRASTRUCTURE

Income generating activities are supported in several ways.

(i) ADREs provide senior strategic support and ensure that the Institutional Research and Innovation Strategy is prioritised. Their support has empowered our Research Centres and Groups to develop plans for targeted, proactive funding proposals in areas of strength, leading to a coherent organisational growth that includes all academic staff. This system not only fosters

Unit-level environment template (REF5b)

development of early career researchers but ensures a critical mass of researchers around our key research themes.

(ii) Our UoA has a vibrant community of service users (detailed in Section 4) who are not just involved in all aspects of doctoral training (e.g., admissions, intervention, and consultancy training) but are also involved in the development of research ideas, funding applications, and research analysis.

(iii) Academics are supported in income generation by RIIS. This central service (see REF5A section 4 for more information) provides a range of support including identifying income sources, grant development, initial finance, and project management assistance where appropriate (e.g., for **Gidlow's** 2017-2019 NIHR-funded RICO study).

(iv) The 2018 University Research and Innovation Strategy identifies research excellence as a priority goal. This is a key institutional development since the last REF. The strategy embeds research in the appraisal system for staff on the research pathway, which in turn facilitates the identification of their research needs. It is reflected in the staff development strategy at departmental and University level and is reflected in work-loading processes. All staff in this Unit now have a minimum 20% time for research, receive research-focused annual appraisals and are set discipline-appropriate targets for research grant applications and income.

(v) University funding. The University provides us with quality-related ('QR') funding (through application) for impact acceleration, teaching relief to support bidding, and for dissemination activities. Two of our impact case studies (**Gidlow, Slater**) have benefitted. All Research Centres are awarded central support to facilitate the development of their research activities, including a budget for building research strengths. We received £38k of internal funding to support the development of a "Smarter Thinking" app, which aims to reduce individuals' irrational beliefs and improve psychological health.

(vi) A rolling programme of centralised research-related workshops to support researchers. RIIS organise these workshops. They include: funding for research, research grant writing, writing for publication, beginning to write for publication, and starting to become research active.

3.3 FACILITIES

We collaborate through shared use of central facilities. These include the University Library Services, which support research through the provision of a high-quality library environment and facilities, appropriate print and electronic information resources and support from professional subject librarians to support literature searching and retrieval; and leading software for quantitative and qualitative data analysis (e.g., SPSS, AMOS, NVivo).

Researchers within UoA3 have access to dedicated, specialist facilities with support from the centralised Technical Services. The University is a signatory to the Technician Commitment. The Technical Services team enables sharing of equipment and facilities across the University to stimulate interdisciplinary collaborations. We conduct research with support from the Health & Clinical Skills Hub (HCS) of Technical Services, one of five Hubs across the University. HCS comprises 13 staff, one of whom was awarded the [2014 HEA Psychology Technician of the Year](#).

Annual expenditure on equipment is prioritised according to a range of factors, including emerging research and teaching needs and growth, and opportunities to develop and expand research funding proposals by harnessing new facilities and resources.

Stand-out facilities include:

The £30m Science Centre, which is central to our work, is equipped with facilities for biochemical, molecular biology, microbiological, cell biology, physiological and genetic analysis. These include dedicated spaces for cell culture, fluorescence microscopy, a genetic analyser, microbiological culture, spectroscopy, scanning electron microscope, an X-ray diffractor, liquid chromatography mass spectrometer (LCMS), and a nuclear magnetic resonance (NMR) spectrometer. Each of these pieces of equipment has a dedicated

technical specialist responsible for maintenance and training. Investment in server capacity is being finalised to implement cloud systems for data storage.

Human Sciences Suite: includes the Electroencephalographic (EEG) Laboratory, The Pain Laboratory, The Cardiovascular Laboratory, and the Clinical Biochemistry Laboratory.

Observation and Cognitive Suite: purpose-built facility used for research by students and staff. It includes an observation room with video and two-way mirror, a Child Development Laboratory, and a series of laboratories including eye trackers and Virtual Reality (HTC VIVE, Samsung Gear), plus five individual testing rooms linked to a central control room.

Counselling Suite & Interview Rooms: smaller, separate rooms equipped with microphones and video-recording technology suitable for interviewing participants in our qualitative research.

The **Basil Ashford Sport and Exercise Psychology Lab** includes a Finometer and Portapres used extensively in the Group's research on psychophysiological responses to stress, as well as co-ordination functioning testing equipment (e.g., BATAK). Separate from the lab is the **SEPP Sport Psychology Suite** used for data collection and interviews.

Facilities for Doctoral Students: PhD students have access to all laboratory facilities and equipment and space close to where they research. In addition, we provide dedicated space for PGRs to undertake quiet work with access to computers and desks and social interaction and discussion spaces.

Future facility developments

To support our future healthcare analytics potential, in 2020 we have achieved accreditation with the NHS Data Protection and Security Tool Kit. This accreditation opens our access to NHS Digital data and other data projects within the NHS, helping to support our five-year research growth intentions.

In 2021, the launch of the £5.8 million Centre for Health Innovation (£2.9 million Local Enterprise Partnership funding) will provide a state-of-the-art simulation and immersion suite for future collaborative research with public and private organisations in the healthcare sector.

4. Collaboration and contribution to the research base, economy and society

Our research contributes to the University's wider role as a civic university. We work closely with our local partners to ensure relevant and impactful research that can improve the health of the local population. Collaboration and co-production are at the heart of what we do.

4.1 COLLABORATIONS

Collaborations with Service Users

We have built strong relationships with Service Users and embedded them in our research and our teaching. As part of NHS PPIE, and research co-design and co-production, we work closely with patient groups in the planning and delivery of specific projects (e.g., RICO study, 2017-2019; homelessness in Stoke-on-Trent, 2018-2019), and have ongoing collaborations with service users (e.g., people with fibromyalgia and chronic pain; people with lived experience of multiple and severe disadvantage). **S Jones's** work in healthcare analytics is designed to facilitate PPIE integration. **Rodham** collaborated with service users to co-produce a leaflet for the charity Pain Concern (2018). **Boughey** has conducted research in the areas of dementia care (2013-2014, 2017), chaplaincy (2013-2015) and undertaken research for NHS England (2015-2017) capturing carers' experience by recording their personal stories.

Collaborations with Government and Third Sector committees

We are embedded in a range of external committees and groups in the NHS (CHAD, SCPR), and public and third sector organisations. These roles ensure that our work remains relevant to our partners' needs, and they benefit from our research. **Gidlow** sits on the VOICES Partnership Board, an organisation that supports people with multiple and severe disadvantage in Stoke-on-Trent, for whom CHAD has undertaken six commissioned research and evaluation projects to inform practice. **CHAD's** original Board comprised well-respected national and international public health figures, including Prof Siân Griffiths, and Prof Mona Fouad (University of Birmingham, Alabama). CHAD are also part of the Collaborative Network (comprising approximately 30 local public and third sector organisations) who are working to influence practice, policy and commissioning relating to vulnerable groups. **Gidlow, Ellis** and **Povey** have honorary academic contracts with Public Health England. **McSherry** has a joint appointment with UHNM (below). **Tolhurst** has led research within Shropshire Community Health NHS Trust around assessment of patient experience (2019-2020). **S Jones** is a regular collaborator with NHS England and Improvement, particularly with the Deputy Chief Nursing Officer.

National and international collaborations

In addition to our close, local connections, we have developed extensive partnerships nationally and internationally. These partnerships enable our research to achieve both impact and international excellence. We remain committed to expanding our national and international collaborations. We see such collaborations as vital to our research. 71% of our 329 peer-reviewed outputs in this REF period are co-authored by colleagues from other UK or international academic institutions (83% of those submitted to REF), including 82 papers with collaborators from Spain, 42 from Netherlands, 28 from United States. Our collaborations with non-academic partners are evident with 29% of our publications including a non-academic partner. We have produced 65 publications with NHS/Health sector and 25 with governmental organisations over the REF period. We will emphasise these co-authorship practices in the following REF period.

Nationally, SEPP's collaborative research has benefited a range of organisations including Great Britain Paralympic Archery (2014), Stoke City Football Club (2013-ongoing), Great Britain Rowing (2014-2015), Hampshire Police Constabulary (2018-ongoing), Staffordshire Fire and Rescue Service (2019), The Royal Air Force (2017-2020) and Impact International (2016-2019). **Street** worked with artist, Mark Ware, to lead a national touring exhibition (2016). **Gidlow, Ellis** and **Povey** have undertaken several collaborative projects with Public Health England around CVD and diabetes prevention programmes (2014-ongoing).

Internationally, we have developed a range of strong collaborative international partnerships (e.g., International Physical Activity and Environment Network (IPEN); GoGreenEx consortium; University of Sao Paulo; Impact International (SEPP)). In addition, **Burton** has worked with the Change Exchange to take health psychology informed behavioural science to midwives in Uganda. **McSherry** was a founding and steering group member of the newly launched Enhancing nurses' and midwives' competence in Providing spiritual care through Innovative education and Compassionate Care (EPICC) international network to support the advancement of spiritual care education. **Tolhurst** is coordinator of The European Sociological Association's Research Network on Ageing in Europe (2019-ongoing). **Jolley** hosted Romina Vivaldi from the National Research Council of Argentina (CONICET) for a six-month visiting academic scholar position. Vivaldi has since joined the Department of Psychology as a lecturer. **Jolley** also hosted Grégory Dessart from the University of Lausanne in 2018 for a six-month visiting academic scholar position. **McSherry** is a Professor in Nursing employed in a joint appointment between Staffordshire University and the University Hospitals of North Midlands NHS Trust and he also works as part-time Professor at VID Specialized University, Norway. His employment provides national and international collaborations across academia and hospitals. With a career in nursing working as a Registered Nurse primarily within Acute Hospital Care with a focus upon care of the older person and end of life care, in 2010 he led the Royal College of Nursing (RCN) workstream exploring members' perceptions of spirituality.

Collaborations for external bursaries for doctoral trainees

In this REF period we have widened our access to doctoral level training through securing nine funded professional doctorate bursaries in health psychology (led by **Povey**: including the Royal National Orthopaedic Hospital, London, Huntercombe Centre, Birmingham; Lawnswood Pupil Referral Unit, Wolverhampton). The bursaries cover the fees for the doctorate and a small stipend for the trainee.

4.2 CONTRIBUTIONS TO THE WIDER RESEARCH BASE

Awards: Current and former researchers in this Unit have received awards in recognition of their work during this REF period. Awards include: British Psychological Society (BPS) Lifetime Achievement Award (Clark-Carter, 2016), Higher Education Academy (HEA) STEM Technician of the Year (Psychology) (Gallimore, 2018), Fellow of the BPS (**Rodham**, 2016), and Fellow of the Faculty of Public Health (**Gidlow**, 2019). Turner received the Albert Ellis Award for Research in 2018, and an outstanding achievement award in 2019 from the Association for REBT.

Contributions to Learned Societies: Staff contribute to many learned societies and networks and both influence and provide expertise on the development of a range of disciplinary areas. We sit on funding committees and journal editorial boards: **McSherry** is Executive Editor for the Journal for the Study of Spirituality, and on the Editorial Board for the journal *Healthcare*; **Povey** is Associate Editor for the *British Journal of Health Psychology* (2019-ongoing); **Forsyth** is an Editor for the *Women in Sport and Physical Activity Journal* (2019-ongoing); **McStay** is a screener of pre-prints for BioRxiv and preprints.org; **Slater** is in the Editorial Board of the International Review of Sport and Exercise Psychology (2019-ongoing); **Gidlow** has guest edited special issues in the *International Journal of Environment and Public Health Research*, and *Frontiers in Psychology* (2018-2020); **Rodham** was qualitative expert for the West Midlands Regional Advisory Committee for the NIHR Research for Patient Benefit funding programme (2014-2015).

Gidlow is a member of the national Expert Scientific Advisory Panel (ESCAP) for NHS Health Check (since February 2020); **McSherry** is a founding and executive member of British Association for the Study of Spirituality, part-time Professor at VID University College, Bergen, Norway, a visiting Professor with the School of Care Sciences, University of South Wales, and at the School of Nursing and Midwifery, Trinity College, Dublin. **Rodham** was Chair Elect (2014-2015), Chair (2015-2017), Past Chair (2017-2018) of the British Psychological Society Division of Health Psychology. **Slater** was a member of Division of Sport and Exercise Psychology (DSEP) committee between 2015-2018 leading on research hubs, CPD and pathways to full membership of DSEP. **Rose** was secretary to the BPS Developmental Section (2015-2021) and is current secretary to the BPS West Midlands Branch (2020-ongoing). **McSherry** is a founding and executive member of the International Network for the Study of Spirituality (INSS) and formerly British Association for The Study of Spirituality launched in January 2010. He was the Lead applicant of an Erasmus+ project titled Enhancing Nurses Competence in Providing Spiritual Care through Innovation Education and Compassionate Care (EPICC), which developed a European and international standard for spiritual care education. **Tolhurst** is currently the Coordinator of the European Sociological Association's Research Network on Ageing in Europe.

Contributions to Funding Bodies: We are members of and reviewers for research funding panels. These include: Research for Patient Benefit (RfPB) (**Rodham**), ESRC (**Gidlow**, **Rose**,

Seker) AHRC (**Rose**), NIHR (**Gidlow**, **Povey**, **Rodham**) Diabetes UK (**Gidlow**, **Povey**), MRC (**Gidlow**) COST (European Cooperation in Science and Technology (**McSherry**), American Diabetes Association (**Povey**), Alzheimer's Society (Tolhurst), Health and Care Research Wales (**Povey**), Netherlands Organisation for Scientific Research (**Povey**), North Central London Research Consortium (**Povey**), EPSRC, and Parkinson's UK (**Seker**).

Contribution to knowledge: In addition to our research publications and doctoral completions, we are actively engaged in disseminating our work to as wide an audience as possible. We facilitate the sharing of best practice across disciplines by organising academic and practitioner workshops, conferences, and lectures. These include the Annual Health and Inequalities Conference, co-hosted with the UK Faculty of Public Health (**Gidlow**). Throughout the assessment period, we hosted a series of collaborative workshops with external agencies, PhD seminars and public lectures (**CHAD**).

We contribute to and shape curricula and practitioner guidelines. Our national and international leadership is evidenced by the embedding of spirituality within international health practitioner training (**McSherry**). We undertake co-production of research-informed recommendations for practice and policy with a range of stakeholders. **Rodham** contributed to Pain Concern's Complex Regional Pain Syndrome guidelines. Her work is included in the Royal College of Physicians' 2018 update to the *Complex regional pain syndrome in adults* guidelines. We have undertaken a formal rapid review of the literature on reflective practice in crisis for Macmillan Cancer Support (relating to the COVID pandemic, led by **Rodham**).

Invited lectures: **Slater** delivered a keynote presentation on his research at the NHS Human Factors Conference at the Royal London Hospital (2019) and at NEOMA Business School in Paris (2018). **Jolley** gave invited talks at Oxford University (2018 and 2020). **Gidlow** gave invited talks at the Health Disparities Research Symposium, University of Birmingham Alabama (2018), and keynote at the International Mountain and Outdoor Sports Conference, Prague (2019). In collaboration with cardiothoracic surgeon Christopher Satur, **Rodham** presented a series of invited talks to the Chest Wall International Group Meeting, Pretoria (2019). **McSherry** was an invited speaker to the Australian Nursing and Midwifery Federation (South Australia) branch annual conference, Adelaide (2019). He spoke on the topics of dignity and spirituality in older person care. **McStay** has been an invited lecturer at the University of Keele and University of Sao Paulo. **Seker** has delivered a range of invited and keynote presentations relating to Big Data (e.g., International Symposium on Intelligent Manufacturing and Service Systems, Turkey (2021), and IEEE EMBC in Milan (2015) and Chicago (2014).

Knowledge Exchange and public engagement: As part of the research strategy, Research Centres and Groups offer public engagement events throughout the year. These range from a series of visiting speaker seminars, through to engaging with a range of public, professional and academic stakeholders, who come to together to share knowledge and identify priorities for action around key health and social care issues. The Big Community Conversation involved collaborative workshops and stakeholder engagement events with local and regional organisations themed on CHAD research projects (25 events with 1600 attendees). Our engagement activities also include PGR student seminars, invited lectures, annual health inequalities conference (last time co-hosted with the UK Faculty of Public Health), monthly Psychology in the Pub talks, and the 'Psychology and Me' showcase. **McStay** has been a participant in eLife programmes to support innovations in open science and research communication.

Our Associate Professors and Professors across the UoA contribute to the 'Profs in the Pav' public seminar series. This series is an opportunity for the public to come to the university, join us in a free community meal, and learn about the work of Staffordshire University senior research active staff.

