

Institution: University of South Wales

Unit of assessment: A3 Allied Health Professions, Dentistry, Nursing and Pharmacy

1. Unit context and structure, research and impact strategy

Unit context and Overall structure - research groups and alignments

The [Lifespan Health and Wellbeing Research Group](#) is based in Faculty of Life Science and Education at the University of South Wales (USW). The Unit of Assessment (UoA) is comprised of 26 active researchers in two broad health-related research themes that relate across the lifespan: Prevention & Intervention and Policy & Practice Interface. These themes emerged as a natural evolution of our overarching post REF 2014 aim of 'building a sustainable and vibrant research community', and have included adapting to internal restructuring and some staff changes, such as the addition of researchers working on lifespan health at cellular and molecular levels.

These main themes are strategically supported by five more focussed, discrete but overlapping research subgroups or units: the [Welsh Institute for Health & Social Care](#) (WIHSC) (e.g. **Wallace, Llewellyn**); [Intellectual and Developmental Disabilities](#) (e.g. **Northway, Todd, Kirby**); [Promoting Lifelong Health](#) (e.g. **Lancastle, Kenkre, Ross, Bradley**); [Genomics](#) (e.g. **Tonkin, Yu, Iredale**); and [Addictions](#) (e.g. **Roderique-Davies, John**).

Much of the unit's research focuses on hard-to-reach populations, disadvantaged groups and co-morbidity, in a range of physical and mental health conditions. This research is mostly applied in nature; thus, the impact of outputs is an integral component of both our research and dissemination strategies. Impact is facilitated through the unit's long and proactive record of engagement with external stakeholders including: the public, patients, carers and families; policy makers; the public sector; the Community and Third Sector, including voluntary organisations; and industrial/ commercial partners in health and social care. A central element of the unit's impact strategy is that all researchers are encouraged to disseminate research findings with relevant stakeholders as well as academic peers. We also engage with people who are the focus of policy and service provision in both the development of research ideas and in the execution of the research process (e.g. **Northway**). Our research focus is on improving the health and wellbeing of local, national and international communities through innovative intervention and care, influencing policy, public engagement, safeguarding, and education and training. The multi-level networks and cross pollination of researcher communities that result from these strategies facilitate the unit's vitality and sustainability.

USW is located in one of the most socio-economically deprived post-industrial areas of the UK, and has a mission statement to make a positive impact on the economy, society and culture in which it sits (locally, nationally and internationally) through research, innovation and engagement. Meanwhile, the devolved government of Wales is leading the way in putting the health and wellbeing of the whole population at the centre of all policy decisions through specific legislation such as the Social Services and Wellbeing (Wales) Act 2014 and Well-being of Future Generations (Wales) Act (2015). The UoA's research focus is very much designed to reflect the University's mission statement and the related legislative frameworks. As a result, specific research subgroups have established world-leading research programmes in response to this clear focus on lifelong health and wellbeing. Examples include the UoA's research in Learning Disability Nursing, Alcohol Related Brain Damage and Social Prescribing. The links and relationships with the legislature and policy makers further facilitate the influence and reach of our research.

Research and impact strategy

In the REF 2014 the UoA's environment strategy, and its plans for furthering and embedding impact were set out under a broad aim of 'Building a sustainable and vibrant research community', specifically focusing on the following **Objectives**:

- 1. Increase research quality, sustainability and distinctiveness** by focusing on areas of international excellence
- 2. Demonstrate a difference (impact)** through interdisciplinary collaboration, working with stakeholder communities to gauge their needs and applying new knowledge through innovation in practice and policy to bring about change [and in section 4]
- 3. Support research innovation and enterprise** by promoting a culture of looking beyond the immediate outcomes of research through traditional approaches and embracing the translational trajectory to include knowledge transfer, enterprise and consultancy
- 4. Encourage research engaged culture** through building capacity and capability, encouraging leading edge scholarship and demonstrating the links between teaching and research across the continuum from undergraduate to post-doctoral
- 5. Attract and prepare well-rounded postgraduate researchers (PGRs) fit for future careers** through a training programme that sustains and raises standards, providing a broad portfolio of skills to best equip research students in their onward chosen career, underpinned by a positive student experience - [see section 2]
- 6. Support good research practice** through a professionally-led management and administrative infrastructure, within the Vitae Researcher development Framework.

Reflections on the achievement of these objectives (2014-20).

Since the REF 2014 census period we have continued to build clear evidence for international excellence (**Objective 1**); demonstrate impact through interdisciplinary collaboration and stakeholder engagement (**Objective 2**); knowledge transfer, enterprise and consultancy (**Objective 3**); a research engaged teaching culture (**Objective 4**) across all of the subgroups within the research unit; and supporting good research practice (**Objective 6**). The following examples demonstrate the breadth and reach of the unit's research in achieving these objectives over the assessment period. They also attest to both the sustainability and vitality of the unit's work. Evidence for **Objective 5** is set out in section 2.

Within the **Intellectual and Developmental Disabilities** group, **Northway** has developed a programme of work related to the health and well-being of people with learning disabilities, including a specific theme relating to End of Life Care (**Todd**), as well as Safeguarding and Participatory Research. This research has resulted in numerous invitations to present at conferences around the world, including the International Association for the Scientific Study of Intellectual and Developmental Disabilities (IASSIDD) in Melbourne, Athens ([2018 European Region Congress, Athens](#)) and Glasgow ([2019 World Congress, Glasgow](#)). Her group has also attracted study visits from colleagues based in Finland, Poland, Switzerland and Australia. In 2016, **Northway** was awarded an OBE for services to Learning Disability Nursing, followed by Lifetime Achievement Awards in 2018 from both the Nursing Times and RCN Wales. She is co-chair of the IASSIDD Ethics Special Interest Group.

Members of the **Promoting Lifelong Health** group have demonstrated the vitality of our research both nationally and internationally. **Kenkre** is at the forefront of developing evidence-based Community Health models of work internationally through her membership of the International Advisory Board and the Scientific Boards of the European Rural and Isolated Practitioners Association (EURIPA), a representative network organisation founded by family doctors to address the health and wellbeing needs of rural communities and the professional needs of those serving them across Europe. She authored sections of the State of the World's Nursing (SOWN) report which was launched at the 73rd World Health Assembly in May 2020 (the first ever to be held virtually). **Kenkre** is a member of the Steering Committee for the World Health Organisation of Family Doctors (WONCA) Special Interest Group on Family Violence, which set up an international study on policies and care strategies for dealing with

violence in the family context. This is focused on primary health care professionals with specific attention to the family dimension of care and the relationship between primary health care and other family violence care services and protection services. This is being run in 28 countries: 18 in Europe, three in the Middle East, five in Africa, and two in Asia. She recently co-edited a special edition of the Journal of Research in Nursing highlighting the importance of this initiative ([JRN Guest editorial](#)).

Ross is a founding member of the European Spirituality in Nursing/Midwifery Research Network ([EPICC](#)) and a founding member and Honorary Secretary for the British Association for the Study of Spirituality (BASS). A collaboration of over 20 years, the EPICC project has built a European network of midwifery and nursing educators in order to share research knowledge and skills in spiritual care. Since January 2017, this network has reviewed good practice and developed new resources that are being applied to nursing and midwifery education in higher education institutions across Europe.

Lancastle is an invited collaborator with [Gedeon Richter](#) as an expert on psychosocial factors in gynaecological health. The company's R&D activities focus on developing non-invasive medical treatments for common gynaecological conditions which are currently under-treated. The collaboration has led to **Lancastle** contributing to webinars in Paris and in Budapest along with leading European gynaecologists and endocrinologists, presenting at a leading European conference in Helsinki, and sitting on an expert panel developing a National Fibroids Awareness campaign with UK experts. This collaboration also led to conference presentations at the European Society for Human Reproduction and Embryology conference in Helsinki (2016) and the British Psychological Society Health Psychology conference (2017), as well as an article about [decision-making around Uterine Fibroids treatment](#).

In the **Genomics** group, **Tonkin** leads a long-term programme of research focusing on health workforce development in genomics (primarily nursing and midwifery) – USW is the only UK academic institution working in this specific area. This led to the establishment of the Global Genomics Nursing Alliance (G2NA) in 2017, in collaboration with colleagues in the UK at King's College London, University of Central Lancashire/Liverpool Women's Hospital and the Wellcome Sanger Institute, Cambridge, and in the USA at the National Cancer Institute, the University of North Carolina and Penn State University. G2NA worked with the Advances Courses and Scientific Conferences (ACSC) at the Wellcome Trust to hold the first international conference on Nursing, Genomics and Healthcare in April 2020. **Tonkin** was recently been invited to and has accepted the position of co-lead of the Global Genomics Nursing Alliance (G2NA)

Within the **Welsh Institute for Health and Social Care (WIHSC)** **Kenkre** is Co-Director of the Wales Centre for Primary and Emergency (including Unscheduled) Care Research (PRIME), which is the equivalent centre to NIHR Primary Care in England, and is funded by Health and Care Research Wales. It is an all-Wales Centre co-led by Cardiff University, Bangor University, University of South Wales and Swansea University. **Wallace** leads on PRIME Work Package 4: 'Care Closer to Communities' which is based at USW, and within which the new [Wales School for Social Prescribing Research](#) (WSSPR) has been developed. As Director of WSSPR and the current grant holder for USW, **Wallace** sits on the PRIME management board, the All-Wales Steering Committee, the Operational Working Group, and the HCRW Research Directors Infrastructure Group. Other members of the UoA (**Williams** and **Llewellyn**) are also multidisciplinary stakeholder members of the PRIME All-Wales Steering Group.

Wallace and **Pontin** are very successfully building the research environment for Social Prescribing in Wales. They have worked closely with the Wales Council for Voluntary Action (WCVA) on the development of the Wales Social Prescribing Research Network (WSPRN). It has 280 members across Wales and supports a 270-strong community of practice members. The WSPRN performs the role of the social prescribing circle of interest for [Regional Centre of](#)

[Expertise \(RCE\) Cymru](#) which is one of the 150 international UN universities groups. The UN University works with leading universities and research institutes in UN Member States, functioning as a bridge between the international academic community and the United Nations system). **Wallace** and **Pontin** are also members of the Higher Education Future Generations Group (HEFGG).

Llewellyn leads a team of academics and advisors from four Welsh universities in IMPACT – the four-year [national evaluation the implementation and outcomes of the Social Services and Well-being \(Wales\) Act](#). **Llewellyn** worked in partnership with the Health Foundation on its '[Path to Sustainability](#)' study in 2016, providing data from a series of participatory events with key clinical and non-clinical NHS leaders. This helped shape its econometric model predicting further health and social care spending. He is currently leading a team of academics to run two mixed methods evaluations of social prescribing interventions across Wales (Social Prescribing in Mental Health (SPRING) and Improving Mental health through Social Prescribing (PROSPECT)), which are the first studies of their kind being run in the UK. He also led a service evaluation and health economics study reviewing the role of Third Sector funded liaison officers in ophthalmology outpatient clinics, identifying a range of outputs reported in a [recent publication in BMJ Open](#).

The **Addictions Group's** research, membership and impact has gathered significant momentum since its inception in 2014, providing further evidence of the vitality of the UoA. Research by **John & Roderique-Davies's** into health-related gambling harm led to the establishment of a [Senedd | Welsh Parliament's Cross Party Group on Problem Gambling](#). They are working closely with policy makers on a public health approach to gambling harm. They have built up a substantial research base in Alcohol Related Brain Damage (ARBD), which has underpinned the development of the recent Substance Misuse Treatment Framework in partnership with Public Health Wales on behalf of Welsh Government. The Addictions group is implementing key recommendations of the Framework by designing and rolling out training packages that raise awareness of ARBD among service providers. These are the first initiatives in this area in the UK and have been endorsed by the Royal College of Psychiatrists (Wales).

Objective 4 was to further develop a research engaged culture through research-informed teaching across all levels. The UoA has had substantial success in achieving this objective, including developing and building curricula, professional standards and competencies in nurse, midwifery and other health professional training programmes in Wales, the wider UK and internationally. We have also developed models that integrate research collaborations with research training in taught Masters students. Examples include:

Ross's EPICC partnership has produced the first set of spiritual care competencies for pre-registration nurses/midwives; a 'gold standard' Spiritual Care Education Matrix; a Toolkit where teaching and learning materials can be shared; a website to house all of the above ([EPICC](#)). National and international stakeholders include The Royal College of Nursing, the Nursing and Midwifery Council, Public Health England, NHS England, The Dutch Ethical Board, The Norwegian Nursing Association, and The Dutch Higher Education Board. **Tonkin** has developed a tool through the Global Genomics Nursing Alliance (G2NA) that will benchmark an organisation or country's current situation in genomic nursing. Through collaboration with the original G2NA group (19 country and three international nursing organisation representatives) **Tonkin** is currently leading research to define global minimum competencies in genomics for nurses (irrespective of level of preparation/training, professional role or healthcare system). This involves working globally with policy makers and nursing leaders to navigate a pathway to embedding the competencies that are generated within education/training and practice.

Northway's research in learning disabilities underpins not only the learning disability nursing curriculum but also wider teaching in relation to nursing and midwifery. Both lecturers and post

graduate research students deliver sessions relating to on-going research to undergraduate students. Students are encouraged to engage in research activities and have been supported to publish their findings.

Pontin worked with Professor Keith Weeks (a former USW colleague) and others on the pioneering safeMedicate®, an online simulation education programme for medication dosage training that has been adopted for clinical training in many countries. The project has launched a free [COVID-19](#) module to assist NHS staff during the current pandemic crisis. The module focuses on drugs used to treat life-threatening [COVID-19](#) related illnesses like pneumonia and acute respiratory distress syndrome (ARDS). These programmes use immersive computer technology to simulate real-world clinical conditions (and a more realistic learning environment) for accurate drug dose calculation training.

Lancastle has worked across a number of countries as a health psychology expert engaging in cross disciplinary education advising fertility nurses on coping support for women during fertility treatment. She was invited to speak to cohorts of fertility nurses at the BENEFit Fertility Roadshow's continuing professional development events, which were sponsored by Thermex (a global speciality pharmaceutical company specialising in women's health). The events were held at the Royal College of Nursing in London, and also in Birmingham, Glasgow, Manchester, Dublin and Alicante, Spain.

John & Roderique-Davies have worked closely (and have a memorandum of understanding) with Alcohol Concern for the past seven years. (In April 2017, Alcohol Concern merged with Alcohol Research UK to form the UK's leading independent alcohol charity. In 2018 the new organisation was re-branded as *Alcohol Change UK*). Together with the charity, they developed a model of integrating research collaboration with developing research skills and training in taught MSc students, including the importance of dissemination and report writing. More than 20 students have engaged with this scheme over the past 4 years, and have contributed to six research projects that have led to reports for Alcohol Change UK. Alcohol Change UK is a leading charity campaigning for harm reduction in alcohol use, and the report findings have been directly disseminated to the general public, public health and other policy stakeholders through its Alcohol Insights online library and other dissemination strategies, including contributing to a recent high-profile report from the Commission on Alcohol Harm. The commission, chaired by Baroness Finlay of Llandaff, was established to examine the current evidence on alcohol harms in order to examine the need for a comprehensive alcohol strategy for England and to consider UK-wide priorities in non-devolved policy areas.

Approach to impact and relationship with selected case studies

Impact is central to the University's mission as evidenced in the Institutional -level environment statement (REF5a). Uptake of impact training activities has been high from researchers across the UoA, and is a mandatory aspect of the induction process for our newly appointed researchers. The University's commitment to impact is also evidenced by a competitive strategic research and impact investment programme launched in 2019, with a specific focus on translational 'research to impact' activities. All three impact case studies aligned to the UoA successfully secured funds made available through this programme.

The UoA has operated with an impact led 'applied research' strategy for many years. Consequently, it has a strong record of beneficial impact on health and welfare, society and culture, public policy and services, across regional, national and international communities. Enabling impact is embedded within the UoA's wider research strategy which focuses on:

Developing strategic partnerships and alliances in health and other sectors.
Expanding knowledge exchange partnerships as evidenced by the 23 research students funded by the Knowledge Economy Skills Scholarships (KESS) programme, who are working on a wide range of partnership projects within the unit.

Integrating the UoA's research into its teaching curricula;
Engaging with a wide range of potential stakeholder beneficiaries of our research outputs through embracing an 'Involving People' agenda and participatory research methodologies.

The UoA's KESS partnerships extend across the private, voluntary and public sectors and illustrate the vitality of our strategy. Examples include Mencap Cymru (**Northway**); United Welsh Housing Association Ltd (working with mental health and hoarding behaviour) (**Tyson**); Renishaw PLC (A global, high precision healthcare technology group) (**Williams**); Health and Her (a start-up company specialising in female health) (**Lancastle**); NHS Wales Informatics Service (**Wallace**); Calan DVS (one of the largest domestic abuse charities in Wales) (**Iredale**); Aneurin Bevan Local Health Board (**Pontin**); Taylor Protective Coatings Ltd (**Kenkre**); G4S Care and Justice Services Ltd (**Austin**); and The Pobl Group Limited (the largest Not For Profit organisation working with individuals at risk of homelessness in Wales) (**Roderique-Davies**).

The unit's dissemination strategies are also designed to maximise reach, and alongside more traditional peer reviewed publications and conference presentations include 'trade journal' articles, social media, stakeholder symposia and public forums. **Northway's** research into safeguarding adults with learning disabilities has since been used to underpin CPD training activities with local Health Boards. It has also led to the development of the second edition of the text book 'Safeguarding Adults in Nursing Practice' (**Northway** and Jenkins) which remains the only text book dedicated to this specific topic and which has sold both within the UK and internationally. The participatory research study 'Looking into Abuse' (**Northway** et al, 2013) was cited as an example of co-production in action in the European Commission (2018) Technical Dossier Number 4 'Co-Production. Enhancing the role of citizens in governance and service delivery'. Along with one of her Early career Researchers (ECRs), **Northway** worked with the Welsh Government to scope current learning disability research in Wales to inform implementation of the Improving Lives Strategy (Welsh Government Learning Disability Programme) and identified priorities for future research.

The **WIHSC** group (led by **Wallace**) has recently published their evaluation of three Neighbourhood District Nursing pilot projects in Wales. A [Statement from the Minister for Health](#) in the Welsh Government announced the publication of the USW review. The Minister stated that in line with USW's recommendations, he has made a financial commitment to an all Wales approach to caseload e-scheduling for district nursing, and that he is appointing a National Nursing Lead for Primary & Community Care to roll out the learning from the pilots.

The three selected case studies are excellent examples of the embedded nature of impact to the research work of the unit, and to the success of its multifaceted approach to developing and sustaining impact.

Case study 1: The Family Resilience Assessment Instrument and Tool (FRAIT) policy impact for health visiting. This research programme by **Wallace** and **Pontin** clearly demonstrates the unit's approach to impact through the development of strong strategic partnerships in conjunction with knowledge exchange strategies. Understanding 'family resilience' can lead to better support for families and improved child health and developmental outcomes. However, the researchers identified that family therapy-derived measurements of 'family resilience' were impeding the ability of Health Visitors (HVs) to appropriately assess this construct in everyday practice. Extensive and well-established partnerships across Health Boards and Community Nursing facilitated the development of the Family Resilience Assessment Instrument and Tool (FRAIT) - a more robust and relevant resilience assessment tool. This was undertaken in a participatory way, and involved practicing HVs at all stages, including virtual simulation modelling of the tool in USW's Hydra Minerva Immersive Simulation Suite (HMISS). The effectiveness of this approach is evidenced by the research's rapid and extensive impact. The FRAIT has been adopted into Welsh Government policy through its 'Healthy Child Wales' programme (2016). It has made an impact on the professional practice of

all Health Visitors (HVs) working with families and pre-school children throughout Wales. Every NHS-employed HV now uses FRAIT to assess family resilience and aid decision-making around interventions to improve a family's resilience, and child health and developmental outcomes.

Case study 2: *Improving spiritual care in nursing and midwifery.* **Ross** has pioneered this aspect of nursing and midwifery for many years, culminating in an international collaborative programme of research over the past decade. This case study demonstrates the positive impact of embedding research into teaching curricula, as well as the importance of participatory research methodologies. Many hundreds of pre-registration nursing/midwifery students from eight countries have participated in the various stages of this research programme, which has used students' personal operational definitions of spirituality to inform effective methods of teaching and learning in relation to this construct. The spiritual care competencies that have been developed from this research are impacting on undergraduate nurse/midwifery education in Wales and internationally. There is also wider impact on the education of qualified nurses and of other healthcare staff in the UK and across Europe, as well as on UK healthcare policy, and ultimately on patient care.

Case study 3: *Impacting the lives of individuals at risk of Alcohol Related Brain Damage.* Alcohol Related Brain Damage (ARBD) is a predominantly treatable, yet largely unknown and underdiagnosed condition that is increasing in prevalence. It has been estimated that just 16% of sufferers are diagnosed within their lifetime, with many cases wrongly attributed to early onset dementia. For the past six years **Roderique-Davies** and **John** have been at the forefront of research into ARBD within Wales, which is now considered to be world-leading in the development of ARBD expertise. This case study highlights the importance of developing multi-level strategic partnerships and alliances in both the health and public policy sectors in achieving research impact. The researchers have developed an extensive network of external partners, including Alcohol Change UK, Public Health Wales, Clinical Addiction Service Leads, and The Pobl Group. **Roderique-Davies** and **John** were invited to co-author Public Health Wales' Substance Misuse Treatment Framework Strategy (SMTF) for ARBD. This research programme has to date impacted on public health policy by underpinning the development of the Welsh Government's Substance Misuse Treatment Framework and the recommendations therein. It has informed clinical knowledge for the accurate identification and assessment of the condition. Findings from this research have underpinned and led directly to a training programme to increase awareness and knowledge of the condition among frontline service providers. This is impacting positively on outcomes for ARBD sufferers. Recent endorsement by the Royal College of Psychiatrists in Wales, and input into the UK Public Health and Departments of Health current developments of UK-wide guidelines demonstrates that the reach of this impact will extend beyond Wales.

Research strategy

The unit's strategic aims for 2021-2026 are:

To further enhance the rigour, significance, originality and impact of our research outputs using a variety of approaches to investigate real world issues in key areas of physical and mental health and wellbeing.

To increase the translational impact of our research by building the activity and profile of our partnerships with a wide range of local, national and international external stakeholders. We intend to enhance current partnerships and seek to develop new alliances.

To further develop and extend the excellent research environment.

The following targets will be key to achieving these aims:

Promote, retain and recruit high quality staff with significant responsibility for research (SRR), from ECRs to Professors.

Increase grant funding, strategically targeting income that generates high quality research and results in outstanding publications and translational impact.

Expand the recruitment of postgraduate students.
Provide all staff and students with high quality support, training, development and dissemination opportunities.

Delivering the research strategy

A number of wider structural systems underpin the unit's research strategy. For example, USW is part of the South East Wales Academic Health Science Partnership (SEWAHSP). The mission of this alliance is to cooperate and collaborate strategically and operationally, to integrate high quality research and education and to enhance the region's outputs in developing and applying improvements, innovations and health technologies to benefit the health and wealth of the population of Wales. [SEWAHSP](#) was established by the Higher Education Institutions and NHS organisations in South East Wales to reduce fragmentation in Research and Development (R&D) and accelerate health improvement in line with Welsh Government policies. It works closely with industry and funders, and brings together researchers, managers, practitioners, patient groups, planners and policy makers to achieve the mission.

PRIME Centre Wales ([PRIME](#)) is a research centre focusing on primary and emergency care, funded by Health and Care Research Wales in order to develop and coordinate research proposals and support researchers. It is an all-Wales centre co-led by USW, Cardiff University, Bangor University and Swansea University. The Faculty is also a member of the Wales Government's Life Sciences Hub and MediWales which both seek to link the University with businesses through a range of events and funded activity.

Ethics oversight of the unit's research is governed by the Faculty Research Ethics Committee, which includes researchers submitted within this UoA as members (**Roderique-Davies, Lancaster, Northway, Yu, Austin**). All researchers are expected to undertake a period of service with the committee. The Ethics Committee provides an additional quality check on all National Health Research Authority (NHRA) ethics applications before submission. The protocols for NHRA applications are used as good practice standards for other ethics applications within the committee. The Faculty hosts Good Clinical Practice training sessions to enable research staff to ensure that they complete this training. We have also developed expertise in developing research that enables the participation of groups often considered vulnerable in the context of research. (**Objective 6**).

The UoA's research strategy is governed, monitored and reviewed through the Lifespan Health & Wellbeing group structure. All sub groups are led by research professors who report directly to the Faculty Research and Innovations Committee (RICE). All measurable outcomes and objectives are recorded in PURE, and quarterly and monthly reports generated for the purpose of ongoing monitoring of strategic outputs (research papers, income, impact, and other measures of engagement and success). We are moving towards a routine engagement with Open Science frameworks. We have recently started engaging in several open science practices. For example, **John & Roderique-Davies** have set up an Open Science Framework project page for their work in the area of Alcohol Related Brain Damage and have begun to share their analysis codes and outputs from studies there. They are also using this accessible project page to share study materials and supplemental files, increasing transparency and the ability of others to replicate their findings.

At a broader base level, all academic staff within the unit's schools are expected to join one of seven Cognate Research Groups. Each group has a specific theme or focus, under the broad umbrella of Lifespan Health & Wellbeing, and these are constructed to encourage and facilitate cross disciplinary research collaborations. As internally facing groups, they provide important opportunities for early career academics and clinical/practitioner academics to be mentored in research development and training.

Postgraduate researchers are also administered and governed at Faculty level, with ultimate oversight falling to the University Graduate School. The Faculty Postgraduate Co-ordinator sits on the Faculty Research Committee.

2. People

Staffing strategy

The unit's recruitment strategy aims to increase the number of independent researchers producing high quality outputs and impact, as well as encourage progression and promotion of ECR and other career stage researchers. Research Professors are now mandatory members of interview appointment panels to ensure research excellence and potential is given due consideration in new appointments. **John, Ross, Williams, Steggall, Roderique-Davies, Wallace** and **Todd** have been promoted internally to Professor during the assessment period, and **Angelakis** and **Tonkin** have been promoted to Associate Professors. Staff within the unit have been allocated additional support in the past two years by the appointment of six extra FTE Research Assistants (RAs) to support key aspects of the research agenda such as data collection, analysis, report writing and funding application preparation. These are mostly funded by internal university investment and from QR monies. Staff development across the unit is aligned to research as well as teaching priorities. The UoA is strongly committed to supporting & integrating individuals at the beginning of their research careers, as evidenced by the fact that four ECRs are included in the unit's submission (**Wallace, S., Sabolova, Davies** and **Midgley**).

The unit is committed to the university's Strategic Equality Plan, as set out in the institutional level environment statement, with inclusivity at the core of our work. Of the 12 Research Professors in the unit, six are female.

Members of the unit are active in a number of the University's formal Equality and Diversity structures, including as representatives on Athena SWAN; the Gender, Gender Identity & Sexual Orientation Equality Sub Group; the Race, Religion & Belief Equality Group; Women in Academia; and the Women in STEM network. USW was the founder of the Wales Women in STEM Network (WWiSN) in 2019. The WWiSN includes an online collaborative platform that brings together females in STEM from academia and industry. It offers a networking space, a repository of STEM initiatives, support for employers, highlights STEM events and profiles inspirational females in STEM. Within the first month, 117 females joined the collaborative platform, with 855 suggested collaborations made based on members' areas for development and expertise. USW will continue to develop and implement the WWiSN, broadening its reach across women and girls in Wales working, or aspiring to work, in STEM in Further Education (FE), Industry and Academia.

Staff development

The USW Academic Workload Model makes a time allocation of 20% for staff with Significant Responsibility for Research, with professors allocated 30% from 2018-19. Within the context of USW as a post-92 institution, the members of UoA A3 have varying levels of teaching and other duties. The UoA leader (**John**) is allocated additional time within the Workload Model for research leadership. In addition, timetabling is managed so as to allow a clear day for research per week and, when appropriate, to allow for 'light' teaching terms. All USW staff have a formal annual Development and Performance Review with their line manager, during which annual performance targets are set in partnership, and the previous year's performance is reviewed. Research is a key element of this and staff are aligned with a Research Professor for this purpose, which includes a 12-month review in June-September and a mid-point review in January-February. In addition, the UoA leader meets regularly with Unit members and offers individual mentoring as and where appropriate.

All staff, including those not actively engaged in independent research, are expected to join one of the themed Cognate Research Groups within the Lifespan Health and Wellbeing Group. Membership of these subgroups is also open to colleagues operating outside of the Lifespan Health and Wellbeing Research Group to encourage cross-fertilisation of ideas, knowledge and skills. Each group is led by a Research Professor. Infrastructure support has been provided by the Faculty over the past four years to facilitate staff research development. This has included:

£80,000 pump priming funding has been provided for Cognate Group developmental activity. Formal interactions are fostered through seminar series and regular Cognate Group meetings to discuss research proposals, outputs, grant activity and impact.

Staff with significant responsibility for research (SRR) have protected time to conduct their work.

Faculty-funded enhanced research time by providing competitive Fellowships for ECRs (40% of formal workload protected) and more senior researchers (70% of formal workload protected) for the 2016-2019 academic years. **Roderique-Davies, Ross and Todd** secured senior Fellowships, and **Angelakis** secured an ECR Fellowship.

Senior researchers provide mentorship and guidance to help develop research, outputs, impact and funding applications.

Funding is provided for staff and postgraduate research students to attend international conferences.

Central University services, as detailed in the institutional-level environment statement, further support researchers through training, assistance in writing funding bids, providing information on funding opportunities, and the integration of impact into all aspects of the research process, from project genesis to dissemination.

The University's Research and Innovation Services Office runs a rolling series of training and refresher workshop courses on all aspects of supervising and examining PGR students. These are mandatory for all research staff engaging with PGR students. More details are set out in the institutional level environment statement.

The unit has ten Professors Emeritus who continue to contribute their expertise.

Postgraduate researchers

Objective 5 of the UoA's 2014-21 strategy of building a sustainable and vibrant research community was to expand and further develop a lively community of postgraduate researchers who are excellently equipped for their future careers. Table 1 (below) demonstrates how research student numbers have grown during the current assessment period. 71 research students are currently registered within the unit, a significant increase from the REF 2014 assessment period. 39 PhD students have successfully completed between 2014 and 2020, an increase of 15 from the previous REF period). The balance of self/externally funded students has also shifted significantly to the latter during this period, providing further evidence of the UoA's success in building its doctoral student community. Twenty-three of our current students are KESS funded. This is further evidence of the unit's engagement with industry partners and its determination to provide research students with meaningful translational research experience that produces real world impact.

Table 1. UoA 3 Postgraduate Research Student Completions 2014-2020

Date period	Number of Doctoral completions
1 August 2013 to 31 July 2014	3
1 August 2014 to 31 July 2015	8
1 August 2015 to 31 July 2016	4
1 August 2016 to 31 July 2017	7
1 August 2017 to 31 July 2018	4
1 August 2018 to 31 July 2019	4

1 August 2019 to 31 July 2020	9
Total for all years	39

The Postgraduate Research Student environment is supported at Institutional, Faculty, UoA and Research Group levels. The institutional level environment statement sets out in detail the support offered at University level, including the establishment of a Graduate School and a wide range of training programmes. The Faculty level support is described below. UoA and Research Group level support include open plan office space within small groups at USW's Glyntaf and Trefforest campuses. This arrangement successfully provides both social and practical support for students at different stages of their PhD studies, and helps alleviate the potential feelings of isolation sometimes reported by PGRs. The PGR student body has recently set up their own informal Continuing Professional Development and social network for PGR students across research groups within the unit, further demonstrating the positive and supportive nature of the environment we have created. During the COVID-19 lockdown period, we have facilitated virtual PGR groups as a means providing continuing support. Students have engaged very positively with these, as evidenced both by their feedback and by the shared resource materials (provided by students themselves) accumulating on specific Teams groups, ranging from general research training resources to specific tutorials in using the R statistical software environment.

Postgraduate research student environment (Faculty level)

Part of the research mission in the Faculty of Life Sciences is to generate new knowledge and help people apply that knowledge within a culture of continuous improvement. Promoting a high-quality learning environment for research students is an important part of the Faculty's approach. It has a large body of full-time and part-time students, based locally and internationally. Some students are supervised solely from within the Faculty while others are supervised in collaboration with colleagues at home and abroad. The aim is always to provide a supervisory team with the best possible expertise to support the students in their chosen fields of study.

The Faculty continues to focus on improving the student experience and has consistently high student ratings for the Faculty research environment. The Faculty of Life Science and Education (LSE) provides dedicated postgraduate research offices, offering an environment for students to engage with each other from disciplines across the Faculty. PGRs are encouraged to attend a variety of regular Faculty events such as the Annual Research Student Presentation Day, Tea at 3 Faculty seminars, Cognate/Research Group meetings and Idea, Question, Design (IDQ) sessions. LSE continues to promote engagement with its research student community and offers bespoke training sessions negotiated with research students according to their expressed needs and stage of their studies.

The Faculty has a Research Student Coordinator (RSC) who is responsible for quality assurance and the research student experience, and acts as an independent point of contact for students and the supervision team. PGR students are invited to apply to be Faculty Research Student Representatives, which specifically involves:

- Membership of the Faculty Research Degrees Committee (FRDC)
- Membership of the Graduate School Board
- Engaging with the PGR community
- Soliciting the views of the PGR community on the PGR student experience and providing a student voice
- Reporting to FRDC and Graduate School Board on research student activity and any issues and concerns

The open agenda section of the Faculty Research Programmes Committee provides a formal mechanism for students to discuss issues, although PGRs also engage regularly with the RSC.

Student representatives have set up a Facebook page for PGRs and hold a regular coffee mornings funded by the Faculty.

In addition to formal supervisor training, LSE provides supervisor surgeries at each campus, which are well attended by supervisors. The surgeries provide a forum for updating supervisors on regulations as well as discussion of any challenges and areas of good supervisory practice.

3. Income, infrastructure and facilities

Income

£6,213,409 has been directly secured by the unit during the census period, approximately 40% more than the previous REF cycle. This has come from a range of external funding sources, as well as additional structural funding success. These include:

Research Capacity Building Collaboration (RCBC Wales) Funding - Health and Care Research Wales (£996,157) (March 2020). USW is the grant holder and administrator (**Steggall**, Dolan and **Kenkre**).

RCBC Wales is a collaboration between six university nursing and allied health departments to increase research capacity in nursing, midwifery, the allied health professions and pharmacists across Wales. RCBC offers a variety of different schemes ranging from First into Research opportunities to doctoral and postdoctoral studies. RCBC Wales provides bespoke research capacity building opportunities and support for evolving professional groups to develop their research skills and leadership skills, as well as networking across Wales, Europe and the rest of the world. This follows on from a 2016 extension to funding of **£599,996**

PRIME Centre Wales funding (from 2021 – 2026) has been confirmed for a total of **£4,856,662.47**. This includes **£221,916** for work on social prescribing which was initially submitted as a separate bid. USW staff who were listed as co-applicants on the bid include: **Wallace, Kenkre, Pontin, Northway, Llewellyn, Williams**, Smith, **Todd**, Elliott. The previous PRIME bid in 2015 was awarded at **£2,700,000** and the extension (awarded in 2018) was for **£1,799,935** (USW's total share **£562,533**).

HEFCW funding - University of South Wales partnered with Glyndwr University on a bid for **£430,000** of funding for a social prescribing and mental health & well-being project for students (**USW £180,943**). Of this **£110,000** of the funding has been allocated specifically for research and evaluation of the project. USW staff involved include: **Wallace, Llewellyn, Pontin, Wallace**, Davies and Elliott.

Infrastructure and facilities

There has been considerable investment in the unit's research infrastructure since 2014. The Clinical Simulation Centre has an excellent range of facilities which support the creation of authentic simulated clinical settings. It is situated in the Tramsheds on USW's lower Glyntaff Campus and houses simulated environments ranging from a home setting to highly specialised clinical contexts, including intensive care and emergency departments (the latter includes an ambulance simulator). There are a range of low-, medium- and high-fidelity human patient simulators across the age continuum, and sophisticated technologies managed by a central hub to observe, film and record activity across all areas of the Centre. **Tonkin, Lancaster** and **Yu** are currently utilising this resource as part of their innovative '*Walking in their Shoes*' research, which focuses on increasing empathy levels in health professionals.

Since the outbreak of COVID-19 in the UK, the Clinical Simulation Centre has played a key role in the effort to fight the pandemic. The Centre's specialist staff have been helping prepare nurses to care for seriously ill patients by conducting training sessions in intensive care

nursing, developing their knowledge, skills and understanding in this highly specialised area. The Simulation Centre has also been used to produce training videos on using ventilators – specialist equipment used in when a patient's own respiratory system fails.

The Hydra Simulation Centre, based in USW's Elaine Morgan Building, is a high-tech experiential training tool that enables the monitoring of group dynamics, real-time leadership and naturalistic decision making in critical incidents. It provides a unique learning and research environment and is used to conduct realistic immersive, simulated scenarios. It was used by **Pontin** and **Wallace**, working with Community Health Visitors, as a central element of the validation of the FRAIT tool.

The UoA's laboratories on USW's Trefforest campus house extensive specialist biopsychosocial equipment including CANTAB Cognition Testing Systems, BioPac Systems, Relax Trace Software, Tobii Pro Eye Tracker suites (desk based and mobile), and a Replotron Plus Desktop Analyser for quantitative determination of 17 clinical chemistry parameters directly from whole blood, plasma or serum. These are extensively used by the Addictions Research group, with recent work including the evaluation of potential public health impacts of different types of alcohol product labelling, and the implications for public health of embedded gambling products in Premier League football shirts and stadiums (**John** and **Roderique-Davies**).

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

UoA staff collaborate locally, nationally and internationally with partners from industry and academia to provide world-leading knowledge and impact. The unit has strong relationships with a range of stakeholders/key research users. We have and will continue to seize opportunities through strategic health and care alliances to develop partnership and collaborations. This is especially important in Wales where the Social Services and Wellbeing (Wales) Act 2014 and Well-being of Future Generations (Wales) Act (2015) requires all health and care partners to work together through either cooperation, partnership or the integration of care in certain settings. The unit has an excellent track record of engaging and working closely with NHS and other external partners. A good example of this is the Teaching and Research Advisory Committee (TRAC), a group of men and women with learning disabilities who have been meeting monthly at USW for the past 18 years and who advise in relation to research priorities, the design of research studies, the development of applications for ethical approval and dissemination. TRAC have also worked as co-applicants on projects and co-authors on publications.

The unit also has extremely close clinical, research and teaching ties with Health Boards across Wales and internationally – particularly Cwm Taf Morgannwg University Health Board, which is USW's local Health Board, and which became a University Health Board during the current assessment period. The UoA has appointed Visiting Professors (VPs) and Visiting Fellows (VFs) across many disciplines and areas of expertise. The unit currently has 23 VPs and 26 VFs alongside 10 Professors Emeritus. Examples of the UoA's collaborative work include:

Steggall and **Kenkre** lead the All Wales Research Capacity Building Collaboration (RCBC Wales) and associated Community of Scholars that is building clinical research and leadership capacity in Nursing, Midwifery, Pharmacy and Allied Health Professionals (20 professional groups in all).

Kenkre is leading in collaboration across Wales on the development of the Wales School of Primary Care (now PRIME Centre Wales). This is funded by the Welsh Government as a Centre for Research Excellence for research conduct, capacity and capability. **Kenkre** is also leading the development of research with industry through the South East Wales Academic Health Science Partnership (SEWAHSP). This has led to a range of developments in research

and product development especially through joint funding between industry and through the Knowledge Economy Skills Scholarships (KESS)

Wallace leads on the PRIME 'Care Closer to Communities' research scheme. For example, working closely with the Wales Council for Voluntary Action (WCVA) on the development of the Wales Social Prescribing Research Network, which has 280 members across Wales and supports 500 community of practice members. It uses a translational model of research, and includes members from the Third Sector, Higher Education, statutory social care and health organisations (e.g. practitioners, commissioners), members of the public, the independent sector and industry.

Northway was Chair of the Royal College of Nursing Research Society Steering Committee (2011-18) and over recent years has held numerous prestigious positions relating to her field. These include membership of: the UK Steering Group for Strengthening the Commitment (the UK Learning Disability Nursing Strategy); the Research for Patient Benefit Grants Committee for Health and Care Research Wales; the RCN Fellows Group; the Scientific Committee for the RCN International Research Conference; Mencap Advisory Panel; Co-Chair of the Welsh Government Learning Disability Advisory Group; Chair of the Wales Ministerial Advisory Group for implementation of the 'Strengthening the Commitment' Report. Along with **Steggall** she was a member of the Nursing and Midwifery Council (NMC) Thought Leadership Group that developed the new standards for Pre-registration Nurse Education. Other members of the UoA (**Ross, Pontin**) also contributed expert advice to this process.

Ross has developed collaborative networks with nurse/midwifery educators in 24 universities across 16 countries (and is informing their curricula, teaching, policy, research, clinical practice). She has international partnerships with a multidisciplinary consortia of health professionals working in health failure and palliative care. **Steggall** is a Board Member of both Health and Care Research Wales and the Wales Institute of Social and Economic Research (WISERD).

John and **Roderique-Davies** have strong collaborations with key policy-making groups, and voluntary and Third Sector organisations that facilitate rapid impact of their research. A Welsh Senedd Members' group commissioned them to lead an investigation into the health and social harms of problem gambling that led directly to the creation of a cross-party group to champion policy and legislative change. **John & Roderique-Davies** are invited independent members of this group, and have recently undertaken a rapid review/positioning paper on behalf of the Chair of the cross-party group to underpin a submission to the UK Government setting out '*What Wales wants to see in the United Kingdom Government's Gambling Bill*'. They are steering group members of the Beat the Odds Initiative, an international alliance of Recovery groups, including The Victorian Responsible Gambling Federation, in Melbourne, Australia, leading academics and addiction charities. Their strategic partnerships in reducing and preventing Alcohol Related brain Damage (ARBD) include The Pobl Group, Alcohol Change UK, and Public Health Wales. As a direct result, they were invited to co-author the Public Health Wales Substance Misuse Treatment Framework for ARBD, a Welsh Government policy document to inform Health and Social Care Commissioners and Service Providers to design and deliver evidence-based prevention and treatment interventions.

Lancastle has developed multidisciplinary alliances in her work in women's reproductive health, including infertility, ovarian cancer screening, uterine fibroids, and heavy menstrual bleeding. These include the Female Health Special Interest Group (SIG) at the Life Sciences Hub, Cardiff Bay; Liaison Psychiatry (University Hospital of Wales), Cardiff; the pharmaceutical company Gedeon Richter; Preglem; Theramex; Merck Serono; University Medical Centre, Utrecht and Cardiff Fertility Studies Group at Cardiff University.

Tonkin is a member of the steering group of the Global Genomics Nursing Alliance and a member of the British Society for Genetic Medicine (BSGM), the Association of Genetic Nurses and Counsellors (AGNC) and the International Society of Nurses in Genetics (ISONG).

Llewellyn is a Multidisciplinary Stakeholder Lead and Executive Board member of PRIME Centre Wales; an advisor on the Central Research Committee at Disability Research on Independent Living and Learning (DRILL); Wales Representative on the Expert Reference Group on Options for Funding the NHS and Social Care, for Rand Europe (July 2017-April 2018); Independent Member of the Clinical Ethics Committee at Cwm Taf University Health Board; Trustee, Board Member and Company Director on the Wales Council for Voluntary Action; and an Associate Member of the Welsh Institute for Social and Economic Research, Data and Methods (WISERD).

Tyson has extensive community networks that underpin his research in mental health and well-being in community settings. These include the United Welsh Housing Association; Cheltenham Town football club (conducting evaluations of their [MENTalk](#) and [GIRLTalk](#) programmes); the Football League Trust; Swansea City FC; Clarity in Mind.

All members of the unit are regular expert reviewers for a wider range of peer review journals and funding bodies. Most have positions on journal editorial boards.