

Institution: BANGOR UNIVERSITY
Unit of assessment: Panel A, UoA03 Allied Health Professions, Dentistry, Nursing, Pharmacy
<p>a. Context</p> <p>The impact of our research spans from the bench to the bedside and into practice. Our research is of direct relevance to the NHS, social care, the third sector, and health policy within the region, nationally and on the international stage. We deliver research with impact beyond the University across three main clinical areas: rehabilitation, cancer, and dementia. These are linked by four overarching subject and methodological strengths: implementation research, health economics, evidence syntheses, and evaluating health technologies and complex interventions. This activity is embedded in the Schools of Healthcare, Medical, and Biological Sciences. Engagement with service users and the public is at the core of all our activities, facilitated by our unique approach to bilingualism.</p> <p>The primary beneficiaries of our research are those in health, ranging from individuals, e.g. patients, carers, nurses, doctors, allied health professionals, and managers, through to organisations and leaders in public and charitable health settings (e.g. The Alzheimer’s Society, Age UK, Tenovus, Arthritis UK, Cancer Research UK), advisory groups (e.g. National Institute for Health & Care Excellence [NICE], All Wales Medicines Strategy Group, Wales Cancer Implementation Group, UK National Cancer Survivorship Initiative) and government (e.g. Department of Health, Welsh Government, Home Office, the International Cancer Benchmarking Programme).</p> <p>We demonstrate two main types of impact:</p> <p>Impacting on practice and service delivery by collaborating in variety of ways with partners to deliver real-world solutions to real world problems. This includes the design and delivery of national screening programmes, tools and practices to promote more effective service delivery, and the creation of new innovations for use in practice.</p> <p>Impacting on policy making and improving societal health. By engaging with government, service user groups, other agencies, and with the general public, we provide and communicate the underlying knowledge needed to improve policy making and its implementation. This includes the production of evidence that is included in national guidance and the strategies which could be used for implementation, thus supporting the transfer and exchange of research findings to different settings and countries.</p>
<p>b. Approach to impact</p> <p>The key feature of all of Bangor University’s health related research is its focus on relevance and application. Our funding sources (e.g. NIHR, EU, MRC, NISCHR, Charities), and our partnerships and collaborations demonstrate our commitment to ensuring that the research we produce has applied benefits. As we undertake research that translates knowledge from the basic sciences into the development of new interventions (often referred to as the T1 gap), and undertake research that translates the findings of research into everyday practice (referred to as the T2 gap) we are in an ideal position to have wide reaching impact.</p> <p>Specifically, in the REF census period, our approach to impact is based on three primary strands:</p> <p>1. Engagement through partnership and collaboration: We catalyse links between research, practice, and innovation, ensuring that research is both informed by and informs the needs of stakeholders. Our local health board (equivalent to ‘trust’) - Betsi Cadwaladr University Health Board (BCUHB) - is the third largest health and social care provider in Europe. Our partnership with BCUHB creates the ideal context for numerous examples of clinical practice collaborations including: 25 staff members engaged in formal joint working roles with BCUHB, in addition to service innovations and practice improvements in the areas of stroke, cancer, rehabilitation, and dementia care. Nationally, engagement is facilitated and underpinned by the Language Awareness Infrastructure Support service (www.llais.org), which supports bilingual engagement with research and service delivery within the community.</p> <p>Working with health services, service users and charities, our primary care researchers have been leading in the design and delivery of a national programme -- "Diagnose quickly, follow-up safely" -- that focuses on service re-design in upper-gastrointestinal and prostate cancer. Our experts in health economics and in clinical trials have worked with the Wrexham County Borough to improve ventilation systems for children with severe asthma, resulting in changes to housing provision in the area. On the “bench” side, our cancer biology researchers have collaborated with</p>

local health board clinicians and the cancer charity, Tenovus, to identify novel cancer markers for use by practitioners and industry (www.cancerma.org.uk). In the area of prostate cancer, in collaboration with Macmillan, practitioners, and patients, we have developed prototype designs/ideas for the development of Prostate Specific Antigen (PSA) automated surveillance systems, and for service re-design. And our implementation science researchers are working across various clinical contexts (e.g. stroke services) and organisations (e.g. care homes in England, Ireland, Sweden and the Netherlands) to facilitate the application of more effective practices and the redesign of systems and processes based on our research about successful implementation. This relates to the second gap in translation mentioned above (Promoting Action on the Research Implementation in Health Services).

In the area of dementia care, we have worked with representatives from the Welsh Government's Older People Strategy Unit and the Royal Voluntary Service in stakeholder engagement activities to identify future user-led research priorities. We are also working with, for example, Age Watch, Equal Arts, Tyne & Wear Archives and Museums, Nottingham Contemporary, The Alzheimer's Society, Arts Council Wales, and people with dementia, through participatory methods to design user-centred programmes and interventions. Our pharmacoconomics group collaborates with Welsh Government to develop evidence-based criteria for decision-making, which has resulted in clinically effective and cost-effective medicines being made available in a timely manner. The same group has influenced UK governments' policies on ring-fencing funds for cancer drugs, drawing innovatively from research on public views.

2. Communication and effective dissemination. Our researchers engage with the public, policy makers and end users of our research, for example:

The public: Scientists in the North West Cancer Research Fund Institute at Bangor University were responsible for the cancer-themed exhibition in the Scientific Pavilion of the 2013 National Eisteddfod, which typically attracts over 30,000 visitors each year. They have also organised open days as part of the yearly Bangor Science Festival, and are regularly involved in public engagement activities together with various cancer charities.

Policy makers: We ensure that we are in a position to make an impact on the policy and practice agenda. For example, we co-designed -- together with researchers at other universities, the NHS, Medicines & Healthcare products Regulatory Agency and pharmaceutical industry from the UK, US and Netherlands -- a research agenda for the assessment of benefit-risk analysis in drug regulation and health technology assessment. Additionally, there has been cross-national engagement and communication between our experts in bilingualism and those in Canada's health policy context through engagement in a series of symposiums in Ontario and Quebec (2012-2013) to facilitate joint learning and knowledge exchange.

End users: Across our research groups, a typical approach to maximising impact is to create a "community of practice" to facilitate regular interaction with stakeholders -- enabling identification of user-led research needs, and shared learning. For example, in 2012 we led "Creative Voices", a participatory event held in Nottingham Contemporary involving over 100 people and organisations, to develop an arts and dementia research and practice.

3. Provision of evidence-based reports/outputs

Through our collaborations, we are able to inject high level research into policy. In collaboration with the Welsh Government, and providers and service users, we developed an all-Wales evidence-based model of language awareness in healthcare that informed the development of a bespoke language awareness training pack. This model also informed the 2012 Strategic Framework for Welsh Language Services in Health, Social Services and Social Care, and the Dignity in Care Welsh Language Toolkit. These outputs are now informing Canadian health policy around minority language provision.

We also have the potential to produce impact through our research being included in national evidence-based guidance and through evidence assessments. For example, our research about stroke patients' palliative care problems and needs, and preferences for management, has been included in the National Clinical Guideline for Stroke about integrated stroke and end of life care service provision (recommendation 3.15.2). Our evidence syntheses and original research have also been incorporated in NICE guidance, including in a number of cancer service guidelines which have led to service re-configuration across the UK (e.g. improving outcomes: for people with sarcoma; of children and young people with cancer; for people with brain and other central nervous

system tumours). Additionally over 150 economic assessments of new medicines for the All Wales Medicines Strategy Group have been completed, which have impacted directed on the availability of new medicines in Wales. Furthermore, we made a health economic contribution to 'Transforming Healthcare in Wales' (2013) a major review of service provision by Public Health Wales.

c. Strategy and plans

Bangor University's Impact Strategy focuses attention on impact being embedded throughout the life cycle of research: from idea inception, through delivery, and post award. Research relevant to health spans more than UoA3, so Bangor processes promote cross-disciplinary synergy through a co-ordinated institutional approach to the development of impact. This is overseen through the University's Research Strategy Task Group.

To acknowledge the importance of impact, the Schools of Healthcare and Medical Sciences have recently appointed a Deputy Head of School for "Impact and Enterprise". Impact strategy and activity is co-ordinated through this role holder and is supported by a committee. School level activity feeds into the College process including a register of impact cases managed by a College Impact Champion. The College Impact Champion ensures that research impact is integrated into school planning processes through the annual financial planning round. Bangor University's Annual Impact Awards provide an opportunity for staff to showcase examples of excellence. The University has further acknowledged the value of academic involvement in impact, engagement and commercialisation activity through a new promotion pathway to the award of Personal Chair. And Bangor also has a major strategic development in PONTIO, a £46m arts and innovation centre jointly funded by Bangor University, the Welsh Government and the European Regional Development Fund to promote cross disciplinary research and to provide a public platform for knowledge exchange in the strategic areas of Environment, Health and Culture.

Our strategy focuses attention on:

- Strengthened support for research staff to enhance impact through performance appraisal, staff development, and annual impact awards;
- Gap analysis to drive the development of new researcher training opportunities, including research communication, social marketing and media training;
- Wider learning from the impact of individual's and group's research through the development of common recording framework, and an annual impact case book;
- Identifying infrastructure development opportunities around key strengths. Looking forward, we intend to further expand our interface with the NHS through plans for a new Bangor Rehabilitation Centre. The aim of the facility will be to establish Wales and Bangor as the UK's recognised (and only) Centre of Excellence for researching, designing and implementing exercise treatments and lifestyle behaviour modification and for qualifying those who are responsible for supervising such individuals.
- Widening the scope of our impact through engagement and partnerships with new organisations.

d. Relationship to case studies

The chosen Impact Case Studies are exemplars of our approach to enabling impact from its research. One case study shows how our research on the role of primary care in cancer influences the practice of general practitioners with benefits to cancer follow-up care and patient communication. This is built upon long term and productive collaborations and partnerships e.g. via the National Awareness and Early Diagnosis Initiative (a public sector/third sector partnership between the Department of Health, National Cancer Action Team, and Cancer Research UK). It has led to impact on NHS practitioners, patients, policy makers and the third sector in the UK and abroad.

Our second case exemplifies how our pharmacoeconomic methodologies impact on pharmaceutical policies and the availability of new medicines on the NHS. Exploiting our expertise in health economics and pharmacy, our pharmacoeconomics group, in collaboration with the All Wales Therapeutics and Toxicology Centre, has developed evidence-based policies for the appraisal of new medicines. Central to the research was extensive public engagement, in which we solicited the British public's views on NHS resource allocation. Research impacts have extended beyond Wales, informing the parameters by which the prices of new medicines are to be set in the UK, as well as providing a basis for the devolved Governments deciding against establishing Cancer Drugs Funds.