

Institution: Queen Margaret University
Unit of Assessment: UoA 3 Allied Health Professions, Dentistry, Nursing and Pharmacy
a. Context

The context to our work is provided by the University's designation of the field of Health and Rehabilitation as a Research and Knowledge Exchange "flagship". Operationally, our Research and Knowledge Exchange strategy is delivered by the Rehabilitation Sciences and Nutrition and Metabolism in Health and Disease (NMHD) research themes, each of which serves as a multi-disciplinary nexus for staff with backgrounds in the allied health professions and nutritional and biological sciences and dietetics.

Types of Impact: We are focused on conducting applied and translational research that can have an impact on real-life issues affecting the health status and quality of life of people (patients and consumers), the professional practice of our external communities (clinicians and the "healthcare" industry) and the development of healthcare policy. Stakeholder engagement and collaboration also influences our research-dependent knowledge exchange activities, which are aimed at generating socially and clinically useful impacts. To this end, we aim to facilitate improved quality of health outcomes (often manifesting as symptom relief; e.g. amelioration of fatigue) and/or experience of healthcare (e.g. specifying nutritional requirements for foods and fluids provided in Scottish Hospitals) and increased understanding of our research methods, findings and their implications among healthcare practitioners.

Main non-academic user groups: Our main non-academic user groups are: people who use healthcare services; healthcare professionals (mainly allied health professionals but also physicians, nurses and healthcare scientists); professional bodies and associations (e.g. Chartered Society of Physiotherapists, British Dietetic Association); healthcare policy makers (NHS Health Scotland, local and national government and individuals within the policy community e.g. Health Improvement Scotland); and healthcare and related industries (especially SMEs in the Scottish Government priority economic sector of food and drink).

Relationship to research activity: Our research is largely focused on the design and evaluation of outcome assessment approaches and therapeutic strategies (including exercise rehabilitation, assistive technology, nutritional, dietetic, surgical and pharmacological interventions within healthcare practice). As such, we are well placed to facilitate evidence-based approaches to healthcare that can directly have an impact on delivery of healthcare outcomes and the development of healthcare practice and policy. We have also started to successfully apply this approach to our multi-disciplinary research, and the generation of research impact, in our evolving partnerships with the food and drink sector.

b. Approach to impact

We view impact as a natural corollary of high-quality, end-user focused research and, as such, we have striven to establish a virtuous circle of research (and knowledge exchange) engagement by committing ourselves to collaborations aimed at 1) the shared generation of relevant research questions arising from current practice and policies; 2) rigorous evaluation of these practice- and policy-oriented research questions; 3) dissemination and translation of findings to underpin models of enhanced practice and 4) continuous iterative and reflective evaluations of what constitutes best (healthcare) practice and policy in our external stakeholder communities. We have a clear strategy for research impact that is supported by the two key elements of stakeholder engagement and more wide-ranging public engagement activity.

(A) Selected examples of stakeholder engagement activities that promote impact include:

1) Our work with partners such as the Scottish Government, the Care Commission, and the Care Homes for Older People Dietitians' Network in developing an improved programme of nutrition in Care Homes (Bannerman). The follow-through impact of this work was evaluated by a published report (Care Commission) and Bannerman's participation in subsequent committee work aimed at improving future similar programmes (described in Case Study 1).

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2) Ongoing research into the effects of alcohol and alcohol pricing (e.g. Gill et al, 2010¹) resulting in invitations for the input of views to the Scottish Parliament's Health and Sport Committee on the drafting of the Alcohol Bill (Minimum Pricing, Scotland).

3) Our key role in the construction, support and use of clinical research training and support networks (e.g. South East Scotland Hub of Allied Health Professional Research Network; Lothian NMAHP Research Community) facilitates germination of new and dissemination of on-going AHP-related research activities and provides a gateway through which our collaborative research can have an impact on local clinical practice (e.g. research-led service enhancement work with Functional Electrical stimulation (FES), described in Case Study 2). This FES-related research, disseminated locally by a research and FES product training seminar for local clinicians, also "stimulated" the uptake of specialist FES training by physiotherapists.

4) Provision of technical and lay summaries of our FES research to the Foundation for Assistive Technology (FAST), which then are made available, via their website and annual report to Parliament, to assistive technology/healthcare professionals, policy makers and the general public/patients.

5) Our direct interactions with patients and/or consumers of our research, (e.g. people with coeliac disease, multiple sclerosis). An example of this includes our 4 year communication of outcomes from our FES research to the MS Research Network which is a patient group that helps to shape MS research by ensuring that funding priorities reflect the needs and interests of people living with MS. They also help us communicate research in a way that is accessible to everyone affected by MS. They, in turn, amplify the potential impact of our research through their reports to the MS Society and to regional MS patient networks.

Public engagement work is supported through our position as a collaborator in the Edinburgh Beltane Public Engagement Partnership. We are an early signatory to the Concordat for Public Engagement produced by the National Co-ordinating Centre for Public Engagement.

(B) Selected examples of our public engagement activities that promote impact include:

1) Regular participation in patient-oriented conferences and meetings (e.g. Mercer, British Kidney Patients Association and Tayside Kidney Patients);

2) Organisation and hosting of research-underpinned workshop dissemination events for Coeliac UK (Bannerman);

3) Our Researcher in Residence Scheme translates research to our community networks (alumni, primary and secondary schools, patient groups) and those involved are supported through training and mentoring in public engagement both internally and externally;

4) We highlight our key research messages to the general public in conjunction with key, strategic collaborating partners such as Our Dynamic Earth, one of Scotland's national Science Centres. In one example, as a follow-on to one of our Food and Drink-related research projects, volunteer members of the public were screened by QMU researchers to determine if they were "[Supertasters](#)²";

5) Invitations to present information to other non-academic users are commonplace and have recently included a presentation at a Scottish Parliamentary event hosted by the Cabinet Secretary for Justice on our work on alcohol abuse (Gill).

The University's Research and Knowledge Exchange Unit provides access to a specialist team of expert advisors to support the dissemination and promotion of research findings and to help identify new funding opportunities. We support the research impact generating capacity of individual staff by operating a mentorship scheme that, in conjunction with the annual performance enhancement review process, facilitates the planning of realistically achievable research impact activity goals for the next year. To support impact generation we also provide financial backing,

¹ Gill, Tsang, Black,Chick (2010) [Can Part of the Health Damage Linked to Alcohol Misuse in Scotland be Attributable to the Type of Drink and its Low Price \(by Permitting a Rapid Rate of Consumption\)? A Point of View](#). Alcohol and Alcoholism, 45(4): 398-400. ISSN 07350414

² <http://britishscienceassociation.eneplus.co.uk/cm/public/eneplus/news.php?newsid=2525&templateid=77&ticketid=MN2ZTXKT37&mm=52893>

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directly via the Research Themes and indirectly via other sources (Santander Researcher Mobility Award scheme; Scottish Funding Council's Innovation Voucher Scheme). The latter supports SME involvement in research to enhance innovation led economic growth. Our Food and Drink Strategy reflects our niche position, supported by infra-structural investment in new laboratories and staff (externally funded Innovation and Business Development Manager), to support research capacity and capability with regard to the generation of research led impact in the Food and Drink sector. Our success in engaging the Food and Drink sector in industry led research was recognised when we were awarded 2012 Interface Awards for 'Innovation of the Year' and 'Sustained Partnership of the Year.'

c. Strategy and plans

Our key future aims and strategy in relation to impact are to:

- 1) Maintain a virtuous circle of research (and knowledge exchange) impact by further embedding researchers in collaborations aimed at the generation of clinically (and healthcare industry) relevant research questions arising from current practice and policies;
- 2) Ensure that all new research projects developed within our Research Themes include, from the planning stage, a pathway to impact statement that indicates how any findings from the research might produce impact and the mechanisms needed to be put in place to support both the generation and monitoring of impact;
- 3) Widen stakeholder involvement in the genesis, focus and refinement of research activities through the constitution of formal patient-public advisory steering groups to better achieve impact;
- 4) Develop and implement a specific policy for public engagement and outreach and to put this into operation through the promotion of staff training opportunities for public engagement via, for example, our links with the Edinburgh Beltane network;
- 5) Provide enhanced mentoring and support for researchers with regard to knowledge exchange activity with a view to the development and utilisation of impact-creation skills;
- 6) Increase the use of contract research staff in public engagement and impact creation and monitoring activities.

d. Relationship to case studies

Our case studies exemplify how our research has provided evidence leading to improved patient management and care as well as informing policy in key areas of allied health practice.

Case Study 1: Case Study 1 (Bannerman et al) demonstrates how applied and fundamental research has been developed to inform evidence-based practice guidelines, strategies, and education and training in nutritional care standards to improve awareness of the nutritional care needs of older adults and vulnerable groups. As a result of long-standing interactions between Theme members, NHS groups and allied health professionals, the outcomes of the Theme research informed policy and practice in the nutritional care of older and nutritionally-vulnerable adults. This work, highlighting the importance of adequate nutrition in the elderly, has been recognised and used as guidelines by other bodies when improving targets for nutritional management in residential or community care settings. The research identified that with advancing age there are important changes in nutritional requirements and status. This culminated in the work was the translation of findings into the development of standards for nutritional, food and fluid provision in vulnerable groups in clinical or community care homes.

Case Study 2: Case Study 2 (van der Linden et al) emanated from established relationships with local clinicians involved in the provision of assessment and/or rehabilitation services to children and adults experiencing movement difficulties as a consequence of underlying neurological impairments (cerebral palsy, stroke and multiple sclerosis). This case study reflects the shared origins, with NHS colleagues, of the underlying clinical research questions. It also highlights how two aspects of our niche-focused research (gait kinematics and qualitative exploration of patient and carer experiences of healthcare services) underpinned the conduct of the research into the value of functional electrical stimulation (FES) for the treatment of walking impairments associated with cerebral palsy, stroke, and multiple sclerosis. Finally, it indicates how the research had an impact on service options, availability and the quality of life of these patient groups.