

Impact template (REF3a)

Institution: University of Central Lancashire

Unit of Assessment: 3 Allied Health Professions, Dentistry, Nursing and Pharmacy

a. Context

Researchers in Unit of Assessment 3 (UoA3) share a common aim to undertake applied and translational health-related research to improve the health and wellbeing of populations, communities, patients, service-users, carers and families. Under an overall theme of '**Evidence for Translation and Transformation in Health and Wellbeing**', there are three subthemes which map onto the main impact categories, and beneficiaries and audiences of our research. These are:

Evidence for Societal Change which encompasses programmatic research to benefit populations, communities and vulnerable groups through influencing and collaborating with policymakers at all levels within governmental and non-governmental organisations.

Evidence for Transforming Healthcare which focuses on programmatic applied health services research to improve the quality, effectiveness and efficiency of nursing and allied-health interventions for patients, families, carers and service users.

Evidence from Bench to Bedside spans translational laboratory-based pharmaceutical and biomedical research directed towards applying novel techniques to improving clinical interventions for patient benefit.

Groups have close functional links with NHS clinicians, clinical scientists, health service managers, policymakers and/or industry. Subtheme collaborations enable cross-fertilisation of perspectives (e.g. population and clinical perspectives, clinical and biomedical sciences) and joint dissemination initiatives (<http://bit.ly/19U6nrR>).

b. Approach to impact

North West (NW) England is an area where deprivation and unhealthy lifestyles contribute to high levels of morbidity and mortality. Historically, UoA3 research groups have had close functional links with local health, social care and third sector organisations undertaking collaborative research targeted to meet local needs and develop evidence-based services in local priority areas. For example, within the '**Transforming Healthcare**' subtheme, research evidence influenced the Early Start Home Visiting programme within one local health organisation. These relationships have expanded within this period, but the credibility of research groups and the significance of research outputs has enabled expansion beyond NW England. To maximise reach, UoA3 researchers have strategically aligned research goals with national priorities supported by the university through senior research appointments in areas including cancer care, dentistry, pharmacy and mental health. For example, within the '**Bench to Bedside**' subtheme, the newly formed Oral Dental Sciences Research Group is developing a stream of translational research around the putative link between oral pathogens and Alzheimer's dementia to support preventative oral health measures. Increasingly, the focus has expanded internationally and there are now research groups whose main emphasis is on global research and international beneficiaries. For instance, access to medicines for the poor is the focus of one research group funded through successive European Commission grants (see Health Impact Fund case study). There is also more widespread dissemination of research evidence. A university funded public relations officer helps identify upcoming research findings for press releases and university publications, such as 'Breakthrough' (<http://bit.ly/15lqk9g>), which are disseminated to national and international partners. UoA3 holds international conferences; the International Normal Birth Research Conference series, set up by the Midwifery Research group, was hosted in Vancouver (2011) and Hangzhou (2013) attracting policymakers, clinicians, service developers, service-users and researchers.

The UoA encompasses the University's strategic aims of innovation, internationalisation and engagement. The UoA approach focuses on developing collaborations and hosting networks to increase the relevance of our research to end-users, influence evidence-based change in practice and policy and extend the reach of our research to national and international audiences. We achieve this through:-

Service-User Engagement: COMENSUS, an innovative service-user engagement team, was initially developed to embed user voices within teaching but is now increasingly involved in research. The university provides estates and staffing infrastructure and the team supports integration of the user voice into academic-led projects and dissemination of research evidence. Research teams across the subthemes include public and patient involvement groups or work with external patient-partnership groups. For example, the ICONS trial on continence in stroke (Watkins, Thomas) had a dedicated aphasia group which ensured equal opportunity in the design and execution of the research programme producing an online training course for clinicians (<http://bit.ly/16TPpXp>). Innovative methods have been exploited to promote research evidence to service-users, for example, Carter's work on pain management in children has been translated into an e-resource for parents (<http://bit.ly/1dTTCjU>).

Participatory research: There is a strong commitment to participatory research to increase research relevance and adoption. Within the '**Societal Change**' subtheme, COMENSUS (McKeown) has led an appreciative inquiry project on workplace innovations which demonstrated improved proxy measures for mental health recovery leading to adoption within the mental health trust. Lowe has undertaken participatory research with rural communities in NW Pakistan to identify culturally acceptable interventions to reduce malnutrition. Modification of beliefs and behaviours about maternal and infant nutrition supported by a range of nutritional, educational and clinical interventions resulted in acute childhood malnutrition falling to 5% (<http://bit.ly/16TPPwN>). The project's success led UNICEF to request a programme extension to areas affected by large-scale population displacement. One of Schroeder's projects made it possible for Kenyan sex workers to meet officers from the Kenyan Ministry of Medical Services, allowing them to have input into pending legislation on access to DNA samples and benefit sharing. Seminal participatory research with children and families undertaken by Carter, in the '**Transforming Healthcare**' subtheme, is credited with having directly informed the recommendation of the UK Government's review of community children's nursing services for secure comprehensive, safe and sustainable local services (<http://bit.ly/19exAZP>).

Clinical and Policymaker Engagement: Researchers meet regularly with NHS Trust heads of service, professional and strategic networks and public health and commissioning leads and are actively involved in university initiatives, such as the University Court and public lectures, aiming to promote research evidence. Collaborations are enhanced by honorary clinical appointments and secondments. In the '**Bench to Bedside**' theme, the neuro-oncology group (Lea) host Brain Tumour North West, a unique strategic alliance of academics and clinicians across several universities and NHS trusts (<http://bit.ly/1bowvAw>). Recent research has led to orthogonal analysis of glioma patients' serum being used at one NHS trust to assist with treatment planning. Within the '**Transforming Healthcare**' theme, working collaboratively with local cancer clinicians, Beaver and Wilson have generated evidence for cancer patient telephone follow-up by specialist nurses leading to changes at these hospitals and incorporation of the evidence into NICE guidelines (<http://bit.ly/15Gxs4p>) and DoH National Cancer Survivorship Initiative guidance. The NIHR-funded ASTUTE research programme (Lightbody, Watkins) was run in close partnership with the simultaneous introduction of Telectroke by the NHS Cardiac and Stroke Network throughout Lancashire and Cumbria. Within the '**Societal Change**' theme, Dey's expertise in implementation research and collaborations with the Lancashire and South Cumbria Cancer Network, has informed the development of a cancer awareness toolkit for frontline staff, adopted and expanded by the DoH National Cancer Action Team and utilised across NHS and social care organisations to increase staff awareness (<http://bit.ly/1dTU29R>; <http://bit.ly/1bowGvy>). UoA3 researchers embrace Knowledge Transfer Partnerships (KTP) funded by the Technology Strategy Board working with health and social care partners to provide underpinning research evidence for innovations with financial or social capital benefits (<http://bit.ly/150EA9o>). Six KTP's were completed during this period; a three year KTP on behalf of a Mental Health and Social Care Partnership recorded 32 benefits for the organisation. Researchers are supported by UCLAN Innovation & Enterprise and UCLAN Funding, Development & Support services to develop transformational relationships with partners, support key activities such as contracts and intellectual property and identify funding for the promotion of research evidence to end-users.

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Professional leadership: UoA3 researchers participate in innovative university research leadership courses, recognising that networking and influencing skills are essential to broker relationships across diverse organisations and maximise research diffusion. Researchers are supported to take up professional leadership roles within health organisations, professional groups and national and international advisory groups. Dey was public health lead for the Lancashire and South Cumbria Cancer Network. Watkins was DH advisor on the implementation of the National Stroke Strategy and, consequently, Watkins and Leathley led the development of the national Stroke-Specific Education Framework, in part, informed by their extensive research in this area. Carter's work on pain management in children led to membership of the Association of Paediatric Anaesthetists Paediatric Pain Guidelines Working Group. Following on from her research work, Schroeder has contributed to the WHO project *Grand Challenges in Genomics for Public Health in Developing Countries*, and is on the European Commission Expert Group on "Ethical and Regulatory Challenges to Science and Research Policy at the Global Level".

New researchers: In UoA3, researchers starting or early on in their career are fundamental to ensuring research currency, innovation and diffusion. UoA3 researchers utilise university and NHS bursary funding to attract local clinicians to undertake part-time doctoral research. Brain Tumour North West hosts NHS clinical research fellows, bridging the gap between laboratory scientists and clinicians: an MD student was involved in previously highlighted work which informed brain cancer patient treatment planning. The Clinical Midwives Research Network (Dykes, Downe), involving staff from eight NHS Trusts, provides a forum for highlighting clinically important research questions and supports the study design and implementation to address these issues, as well as, timely adoption of research findings into practice. Pharmacy Practice Research Group (Becket) supports NW community pharmacists engagement in research. Carter is director of the Children's Nursing Research Unit at Alder Hey Children's NHS Foundation Trust and inputs at a senior level into Trust R&D strategy. The unit has successfully attracted clinical staff into doctoral research, gained fellowship funding from NIHR and charitable sources, and supported staff into NIHR clinical academic posts.

International impact: A major strategic aim is to increase the international impact of our research. This has been facilitated through the development of international collaborations supported by university funding for example, international distinguished visitors (five in the last 2 years in this UoA) and through seven substantive or honorary appointments of international academics (<http://bit.ly/19U6nrR>). Many professors also hold affiliate appointments with international institutions. UoA researchers have successfully applied for European Commission funding supported by a dedicated university European bid support adviser; six international projects with widespread international involvement have been funded. There is also global diffusion of research innovations. For example, Hunt's work on the Paediatric Pain Profile for enhanced assessment of pain in children with severe cognitive impairment has led to its use internationally (Australia, Brazil, New Zealand). The Management of Aggression and Violence Attitude Scale (MAVAS) scale, developed by Duxbury, to help manage aggression and violence in healthcare, has been adopted by other countries. Gerdtz and Duxbury analysed the attitudes of emergency staff in Victoria Australia with regards to patient aggression. This led to the development of 'The Management of Clinical Aggression – Rapid Emergency Department Intervention', a 45-minute educational program that aims to promote the use of de-escalation techniques and effective communication skills to prevent patient aggression.

c. Strategy and plans

To further maximise the benefits for end-users of our current and future research, we are investing in three key areas which will have impact beyond this REF period:

Multidisciplinary research networks: UoA3 hosts two academic networks set up in 2011: UCLAN Cancer Studies (Beaver, Dey and Lea) and Mental Health at UCLAN (Duxbury and McKeown). These outward facing initiatives, pump-primed by the university, draw on expertise across UoA's to generate innovative, discipline-hopping approaches to key national health priorities. UoA researchers are co-applicants in the recently funded NW Coastal CLARCH bid working with other

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universities in the North West.

Diffusion and Adoption: The university is investing in a professorial post focussed on healthcare implementation to advance research in this area and embed strategies across the UoA. UoA3 researchers are working with NW Coastal Academic Health Service Network to increase timely diffusion and adoption of our research evidence. Research leads are actively pursuing opportunities to work with commissioners, clinical networks and Health and Wellbeing boards as new NHS arrangements embed. Mechanisms for more Open Access publications are also being pursued with university support and researchers are being encouraged to embrace digital and social media (<http://bit.ly/19SDBQF>). We will extend the remit and resources for COMENSUS service-users to increase their dissemination activities nationally and internationally.

Clinical Trials Unit (CTU): The CTU (Watkins, Sutton, Dey) specialises in complex intervention trials with a developing portfolio in feasibility study design and intervention fidelity measures to enhance clinical and organisational relevance of trial findings and early adoption. There is investment in four new posts and the CTU will seek UKCRC provisional registration in 2015.

d. Relationship to case studies

The impact case studies exemplify the following elements of our strategic approach:

Participatory research and service-user engagement: A “grass roots” approach of communicating directly with potential beneficiaries of research was adopted by Schroeder and Pogge in the ‘Health Impact Fund’ research. They sought to collaborate with disciplines with greater “real world” reach; made a point of meeting with potential research users and beneficiaries before drafting research proposals; ensured that people benefit in line with their *own* understanding of benefit. Their experience is that by following these steps, invitations to provide input into policymaking follow.

Clinical and Policymaker engagement: Watkins and team ‘Reducing Death and Disability from Stroke’ have worked extensively with local communities, stroke groups, NW Ambulance Service, NHS Direct, NHS Trusts, Royal College of Physicians Clinical Effectiveness Unit, British Paramedic Association College of Emergency Medicine/College of Paramedics, and The Stroke Association to produce guidelines and training materials to increase awareness and early identification of stroke contributing to reductions in stroke mortality.

Professional Leadership: Downe ‘Normal Childbirth’ chaired the UK Royal College of Midwives *Campaign for Normal birth* focusing on salutogenic approaches to normalising childbirth based on her seminal research. She was awarded an OBE for services to midwifery in 2011, partly in recognition of this activity. Dykes’ and Moran’s ‘breastfeeding’ research has led to their appointment on expert groups for NICE guidelines on ‘peer support programmes for women who breastfeed’ (being implemented in maternity services across the UK) and public health guidance to improve the nutrition of pregnant and breastfeeding mothers and children in low income households. Watkins work on ‘emotional response to stroke’ has informed national competences and NICE guidelines.

International Impact: For example, the EURRECA Network of Excellence produced a resource for international expert panels reviewing micronutrient recommendations (Informing International Nutrition).