

<p><b>Institution: University of Bristol</b></p>
<p><b>Unit of Assessment: 26 – Sport and Exercise Sciences, Leisure and Tourism</b></p>
<p><b>a. Context:</b> The Bristol UoA 26 submission covers staff from the Centre for Exercise, Nutrition and Health Sciences (ENHS), in the School for Policy Studies (SPS). Impact based upon rigorous, challenging and innovative research, aimed at establishing the evidence base for the role of physical activity, sedentary behaviour and diet in public health is central to all work within the Centre. Insight from this work has led to the development of interventions to reduce the individual and population health burden of chronic diseases like obesity and type 2 diabetes. Our research utilises a range of methodologies including systematic reviews, cross-sectional and longitudinal cohort studies, formative research, feasibility studies and randomised controlled trials. It informs the work of four major non-academic groups: 1) regional health commissioners (e.g. City Council, Clinical Commissioning Groups), 2) voluntary organisations, 3) schools and 4) national/international policy makers (e.g. UK Department of Health (DoH), Danish National Board of Health), Our work enables the non-academic groups to develop effective evidence-based policies for improving public health through physical activity and diet.</p>
<p><b>b. Approach to impact: <u>Interaction with key beneficiaries, users and audiences</u></b>          We have defined four pathways to impact (PTI):</p> <p><b>PTI-1) Identifying high-priority research questions:</b> Impact begins by identifying questions with direct implications for improving public health. For example, in response to national Extended Schools and NICE policy guidance on physical activity, the <i>Action 3:30</i> project (PI Jago) has developed an extra-curricular physical activity intervention in primary schools using the existing infrastructure to provide a practical and cost effective way to increase children’s physical activity.</p> <p><b>PTI-2) Engaging stakeholders to maximise research impact and relevance:</b> to ensure that our work is focussed directly on priority issues and policy concerns, key beneficiaries and stakeholders are engaged throughout all research stages. Centre staff led in establishing the <i>Avon Ageing Network</i>, a collaborative alliance of professionals from City Councils, older adult charities, physical activity specialists and funding agencies (MRC/ESRC/DoH), brought together to identify ‘best bet’ solutions for promoting physical activity among older adults. The network developed a practical guide for use by council and primary care personnel commissioning physical activity programmes. Direct engagement with end-users of our research is demonstrated by <i>Teampay</i> (PI Jago), a targeted physical activity and screen-viewing parenting programme, developed with parents.</p> <p><b>PTI-3) Disseminating research:</b> our communication strategy aims to create routes to impact by facilitating dialogue and interaction between user groups, academic colleagues and the public.</p> <p><b>Media engagement:</b> we work with funding agencies and the University of Bristol press office to increase public awareness of our work by issuing regular press releases which have led to broad coverage in national and international print, radio, television and online media. We have also worked with editorial commissioning teams (e.g. Channel 4, BBC) to develop feature pieces for our work. We have dedicated <a href="#">web-pages</a> for all of our research projects providing accessible research summaries and links to outputs. We facilitate impact by generating public debate on physical activity, diet and health-related issues, which in turn influences public policy. For example, Cooper has taken part in media interviews to promote the health potential of increasing active travel, helping to increase understanding of the options for local policy changes (active travel impact case study).</p> <p><b>Public engagement:</b> we contribute to University public engagement events such as “<i>Thinking Futures</i>”, a week-long festival to share and celebrate research from the University of Bristol’s Faculty of Social Sciences and Law, comprising a wide variety of events for the general public, schools, policy-makers and third sector organisations in Bristol. We have also contributed to “<i>Twilight talks</i>”, a university wide outreach programme where Cooper &amp; Page delivered a public lecture on their work in active travel during the 2013 Bristol Cycling Festival. To increase public understanding of the discipline beyond our own research, ENHS organises the annual <i>Professor Jerry Morris Memorial Lecture</i> to communicate broad issues in the field of physical activity and nutrition. This public lecture is presented by internationally recognised speakers including Blair (South Carolina), Guralnik (NIH), Jebb (Cambridge), Lee (Harvard), and Wardle (UCL).</p> <p><b>Policy engagement:</b> we hold dissemination events for our research projects to which local</p>

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health commissioners and voluntary organisations are invited. We convey our research to policy makers through participation in national and local government advisory panels, including the National Institute for Health and Care Excellence (NICE; active travel impact case study), and have given invited presentations at the DoH on active travel, paediatric physical activity and sedentary behaviour, and older adults' physical activity. These activities helped shape government policies and initiatives such as the Chief Medical Officers national guidelines for physical activity (Start Active, Stay Active (2011)) where *Project OPAL* outputs are included as vignettes (Page 43).

**Innovation:** we actively explore innovative strategies for sharing research. For example, project MINA (PI Thompson, <http://projectmina.org/>) used a visual ethnographic approach to explore the complex interplay between migration, nutrition and ageing in a cross-section of Bengali women in the UK and Bangladesh. Photographs and associated life histories were exhibited in 2011 at the National Assembly for Wales. With our support, a former PhD student (Douglas) has become an Ambassador at the National Co-ordinating Centre for Public Engagement, using art-based approaches to stimulate public awareness of research in sport, exercise and mental health.

**PTI-4) Collaborating with and influencing the field:** a strong characteristic of ENHS is collaborative research with colleagues in the UK and overseas to conduct flagship projects with significant policy relevance which generate new inter-disciplinary teams and increase the reach, relevance and impact of our work. In the UK, Cooper & Page work with transport specialists, public health professionals, geographers and health economists on the *i-Connect* and *ENABLE* projects. Johnson is the principal nutritional epidemiologist and honorary research fellow at the University of Cambridge for the co-ordinating centre of the coronary heart disease component of the European Prospective Investigation into Cancer (*EPIC-Heart*). Sebire collaborates with researchers in Portugal to enable dissemination of his *Goal Content in Exercise* Questionnaire through translation into Portuguese. Page leads a work-package for the EC-funded *i.Family* study into children's diet and physical activity, involving 8 European countries and with a large international advisory board including representatives from the food industry, policy makers and media. Papadaki has played a leading role in several large EU funded collaborations including *DIOGENES* and *Progreens*.

**Support of staff to achieve impact from their research:** As ENHS Impact Director, Jago oversees the generation of impact for all research projects. All staff are encouraged to create new ways to maximise the impact of their work. For example, ENHS research staff have developed a physical activity outreach programme (*FAB kids*) for local schools, based upon their school research experiences. Researchers working on the *i.Family* project are part of the Young Investigators network by which they benefitted from training opportunities that encourage impact thinking from the early stages of their career (e.g. WHO media workshop in 2013).

**Use of university resources to achieve impact:** University infrastructure is increasingly being used to achieve impact. The [Elisabeth Blackwell Institute for Health Research](#) was established in 2012 to identify and nurture new opportunities for interdisciplinary research and to translate that research into effective health outcomes. The University of Bristol, the four NHS Trusts in Bristol, UWE and Bristol City Council together formed 'Bristol Health Partners (BHP)' in 2012, whose mission is to generate significant health gain by integrating, promoting and developing Bristol's strengths in health services, research, translation, innovation and education. BHP has formed a number of Health Integration Teams (HITs) which are cross-organisation, interdisciplinary groups set up to address major health priorities by working together in new and different ways. Cooper is part of the leadership team of the Supporting Healthy Inclusive Neighbourhood Environments (SHINE) HIT, which aims to enhance the city of Bristol as a health promoting environment. UoB has also provided material support to develop impact. For example, the [Centre for Public Engagement](#) and UoB "Give it a Go" fund have awarded ENHS research staff almost £7,000 to develop and pilot the *FAB kids* outreach programme. This will support training of 20 students to deliver interactive physical activity and nutrition sessions in forty primary schools in 2014.

**c. Strategy and plans:** We plan to achieve greater impact for our work in physical activity and nutrition by increasing emphasis on those high risk groups who will constitute a significant future public health burden and where innovative interventions to reduce the burden of disease are required (the elderly, people with type 2 diabetes, inactive children). We aim to achieve this is by:

- Increasing integration with multidisciplinary research centres with a remit and infrastructure

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to achieve health impact (e.g. the *SPHERE (Sensor Platform for HEalthcare in a Residential Environment)* Interdisciplinary Research Centre (EPSRC; £12 million) which aims to develop remote sensing methods to address the healthcare needs of older adults.

- Greater and earlier integration of stakeholders with our work e.g. within the NIHR Bristol Biomedical Research Unit in Nutrition, Diet and Lifestyle (BRU) we have developed an NIHR-approved patient and public involvement (PPI) strategy to engage patients in all aspects of research and dissemination.
- Conducting rigorous trials of school-based interventions to increase physical activity.
- Continuing to extend our international impact e.g. *I.Family* includes a work package to disseminate our work to European stakeholders.

As an indication of our leadership in and commitment to the impact agenda, with effect from 1<sup>st</sup> January 2014, Page will become the Impact Director for the School of Policy Studies. This wide ranging role will be supported by and report to the senior management team and will embed impact in all aspects of the School and ENHS activities. For example, to facilitate greater impact, all grant applications will be assessed by the Impact Director for their impact potential prior to submission. Applicants will be asked to consider:

- i. What is the key research question that this proposal is designed to answer?
- ii. Who will benefit from this research at the end of study and within 5 years of completion?
- iii. How will impact be achieved, measured and maximised?
- iv. What is the strategy for disseminating research and sharing results with policy makers?

Grant holders will monitor and report impact throughout the grant cycle and will produce an annual impact summary. These summaries will inform the ENHS annual impact report, highlighting good practice and novel approaches that can be shared. We will utilise [PolicyBristol](#) a new platform to bring together diverse policy-relevant work from across the Faculty to make it accessible to research users from outside the academic community. PolicyBristol aims to enhance the influence and impact of the policy-relevant research undertaken by the Faculty, and works to facilitate collaboration with organisations and individuals. It is a key vehicle for strengthening our contribution to effective policy development and delivery in relation to contemporary health challenges. Postgraduate students are, and will increasingly be, made aware of the importance of impact by being provided with opportunities to translate research evidence into community action by volunteering, supported by our Annual Student Impact Award. PhD students will maximise their research impact via the ESRC South-West Doctoral Training Centre. Previous research student impact successes serve as models for future impact work. For example, a PhD study within the Centre (Withall 2011) used a social marketing approach to successfully increase participation in organised physical activity sessions in a deprived area of Bristol. The six month “*Fit & Fab*” intervention ran from Sept 2010 to March 2011, after which the five different physical activity sessions that formed the core of the programme were adopted by the local leisure centre and are still running today. This project, which is highlighted as an exemplar case study on the [National Social Marketing Centre website](#), has led to a 2012 adaptation aimed at children.

**d. Relationship to case studies:** Two impact case studies have been provided as exemplars of our successful impact strategy. Both focus on an area of national and international importance, namely low levels of youth physical activity, and suggest solutions to this issue by different policy relevant approaches, increasing outdoor play and active travel to school (**PTI-1**). Both are strong examples of engaging stakeholders to maximise research relevance and impact (**PTI-2**). The DoH-funded *Street Play* project is a collaboration between ENHS, *Play England* and *Playing Out* (a resident-led community interest company who enable local street closures to encourage children’s outdoor play). Our work with *Sustrans* translates evidence from research into increases in children’s active travel. New collaborations and inter-agency working (**PTI-3**) are illustrated by outcomes of dissemination activities. For example, the 2009 *PEACH* project stakeholder conference led to further collaboration between ENHS and Bristol City Council (BCC) to support the development of *Playing Out*. The success of street closures organised by *Playing Out* led BCC to re-interpret legislation to allow regular street closures within a single annual application. The collaboration between ENHS and *Playing Out* has led to further partnership at national level with *Play England* (**PTI-4**). In summary, the case studies demonstrate how the application of our four impact strategies has achieved local, regional, national and international impact.